

An Exploration of the Relationship Between Socio-Economic Factors and Career Readiness
in University Students in Lebanon

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“All progress is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry, and inquiry leads to invention”

Hudson Maxim

Dedication

To my father

To my godmother

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Abstract

Political, socio-economic, and cultural factors have ceased the development of career guidance activities in Lebanon. This stagnation shaped the provision of career services and lead to an ignorance of career policies in practice (Sultana & Watts, 2007). This dissertation engages with this problem by offering a model, inspired from the life-span developmental-contextual perspective of Vondracek and Porfeli (1982), to explore the status of career guidance in Lebanon. The model, consisting of two parts, utilises a mixed methods approach in order to foreground the relationships between different significant factors. The first part proposes that the prediction of university students' career maturity from different components inspired from the life-career theory of Super (1980) is moderated by a range of socio-economic factors. To this end, quantitative analysis allows for a careful examination of the development and validation of the Career Readiness Measure. A comprehensive item generation process encompassing an extensive literature review, a pilot and factor analysis studies on a large representative sample ($N = 4015$ university students) produced a 25-item questionnaire to assess career maturity in relation to 4 factors: career planning, career decision making, career exploration, and world of work knowledge. Results show that age (year of birth), year of graduation, type of university attended, the university's name, degree level, frequency of changing majors, socio-economic status and wasta (influence) moderate the relationship between career maturity and at least one of its components. Unexpectedly, religion affiliation does not appear to impact on the prediction of career maturity from its components.

The second part provides further understanding of the status of career guidance in Lebanon by evaluating the impact of policy-makers' interventions on the provision of career guidance services. It is proposed that the provision of career guidance services should begin with an understanding of career professionals' subjectivity; and that it should encompass the

type of services provided, the knowledge and qualifications of career professionals, policy-makers' interventions, and students' perception. In this study, professionals from various schools and universities were interviewed using Q method in order to discern their subjectivity toward career guidance provision in the Lebanese setting. Thirty statements, generated based on expert discourses and theoretical foundations, were collected from $N = 41$ participants. Results reveal 5 groups of professionals who are distinguished based on the type of services they provide and their perception of the need of governmental interventions within the field of career guidance. Findings indicate that professionals hold strong views concerning the fundamental necessity of career guidance for students, yet they diverged on certain core issues regarding the type of services provided and the need to cooperate with policy-makers in order to move the status of career guidance forward.

Finally, from the triangulation analysis of both studies, it is concluded that several issues in career guidance in Lebanon are highly correlated with existing policies, the provision of career guidance services, and with students' socio-economic factors. This implies that research on career guidance in Lebanon should focus on understanding the number of factors that affect students' career maturity and on career professionals' perceptions of career services provision so as to inform and guide policy-makers' planning and decision-making.

Implications for career guidance in the Lebanese settings are discussed further.

Keywords: career guidance - career policy – career maturity – Career Readiness Measure – university students – Lebanon – Middle East – mixed methods – Q method — moderation – quality assurance – career services

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An Exploration of the Relationship Between Socio-Economic Factors and Career Readiness
in University Students in Lebanon

Worldwide social change is occurring through globalisation and new technologies which are reshaping the structures and contents of work thus producing gradually varied expectations related to social competencies, occupational skills, and learning in new situations (Lairio & Penttinen, 2006). According to Heibert (2004) “in some respects, the only thing that is not changing is the fact that everything is changing” (p. 59). Nowadays, individuals who choose nonconforming studies and jobs are more socially recognised than was formerly the case (Giddens, 1991). From higher education, students now move to working life, which represent a major transition that necessitates specific consideration (Lairio & Penttinen, 2006), thus the importance of career guidance (CG) (W. Patton, 2000).

CG is crucial to individuals as it provides essential tools for the promotion of education and training, and impacts, on the long term, the social stability and economic development of countries (Sultana & Watts, 2007). Extensive research in CG has been carried out in Western countries; however, this is not the case for the Mediterranean region (Bardak, 2006). As a consequence there is a paucity of research in Lebanon, specifically, which limits evidence base for policy-makers and career professionals (Sultana & Watts, 2008).

The lack of research has led to a gap in knowledge that has been evidenced by the lack of a comprehensive CG system. The relevant current Lebanese laws, summarised by Abdul Ghani (2006), highlighted a high level of fragmentation across policies leading to a failure to act on such policies (see Appendix A). Despite the growing awareness of the importance of CG, national guidelines and quality standards are yet to be developed (Sultana & Watts, 2007). Indeed, Plant (2012) stated that:

Quality Assurance (QA) and Evidence in career guidance are increasingly seen as an indispensable part of explaining and even legitimising career guidance activities and policies. It is no longer sufficient to assume that career guidance or career education has an impact. This has to be demonstrated. (p. 91)

This further corroborates the need for research to be undertaken expanding the current landscape of CG in Lebanon. The present research follows an incentive launched by the Ministry of Education and Higher Education (MEHE) (2006) (Joint Projects Organisation, Ministerial Decree 326/2005, MEHE) who commissioned a piece of research in Lebanon that investigated CG in the hope of promoting social and economic reforms. This research will examine the current provisions of CG in Lebanon by reviewing national policies, investigating career services and the moderator effects of socio-economic factors on the readiness of university students to make career-related decisions.

The researcher's aim is to provide further evidence to policy-makers (Maguire & Killeen, 2003; Plant, 2012) and to encourage evidence-based practice in the field of CG. In addition, findings from this study would support and guide the design and development of robust national CG standards, which ensure the legal protection of the title of CG practitioners.

The Lebanese context

Lebanon is a small country (surface 10,452 Km²) located on the eastern coast of the Mediterranean and its borders are Syria and Palestine. Enjoying a moderate weather with beautiful and natural landscapes at the heart of the ancient world, Lebanon is a touristic and summer destination attracting tourists worldwide.

Unfortunately the Lebanese civil war started in 1975 and lasted more than 15 years during which most of the Lebanese systems disintegrated and competent workers left the

country. In the early 90s, enormous efforts have been made to rebuild the Lebanese education system. National and international support along with governmental efforts have achieved major milestones in the restructuring process yet, a lot remains to be done. Regrettably progress has been negatively affected by the 2006 war.

Despite the political turmoil, Lebanon has a population that is highly educated and a general education sector serving about 1 million students (Abdul Ghani, 2010). The higher education in Lebanon is provided by the public state Lebanese University (LU) on a very large scale covering all major Lebanese cities and more than 40 small private colleges/universities compared to the LU. They are ranged from “unaccredited and partially accredited institutions to prestigious, internationally recognised universities such as the francophone Université Saint-Joseph and the anglophone American University of Beirut” (Vlaardingerbroek, Dallal, Rizkallah, & Rabah, 2007).

Chapter 1

Literature Review

Career Concept

Scholars and researchers in the literature had different definitions and interpretations of the term “career” (Yates, 2014). According to Gunz and Peiperl (2007) career have been largely studied by two major group of stems. First, the vocational psychology stem that focused on career counselling, career choice, and decision-making. Second, the organizational psychology, sociology, and management stems that focused on organizational career.

Despite, the disagreement between practitioners and scholars on the definition of career in the past, the latters have agreed recently on describing career as a subjective construct that is defined differently as perceived by each individual and is best understood in terms of individuals’ specific experiences (Yates, 2014). In addition, a career have an objective aspect, in that the different interpretations of peoples’ work experiences, who are coming from different cultures, are highly influenced by what it is observed and defined publicly (Juntunen et al., 2001). Hence, a universal definition of career must take into consideration both aspects, the subjective and objective ones. Therefore, within the context of this study, the definition of Arnold (1997) that underlines both aspects of career, will be used: “a career is the sequence of employment-related positions, roles, activities and experience encountered by a person” (p.16).

The evolution of career and world of work have been affected mostly by four changes, namely: globalization, technology, industrial society to information society, and part-time and flexible working arrangements (Kidd, 2008). These changes clearly have implications on individual’s career. One major implication that broke the rules of the traditional career is the boundaryless career concept that implies a reconceptualization of careers in the context of moving beyond the boundaries of single employment to a sequence of multiple job

opportunities (DeFillippi & Arthur, 1994). However, research on boundarylessness and readiness of global careers is still in its initial stages. Moreover, gathering data to enable researchers and practitioners understand to what extent these changes are affecting careers in different cultures is needed (Thomas & Inkson, 2007) .

Career Guidance

Definition of career guidance. According to Hansen (2006):

The term career guidance is replacing the term vocational guidance in high-income countries. Vocational guidance is focused upon the choice of occupation and is distinguished from educational guidance, which focuses upon choices of courses of study. Career guidance brings the two together and stresses the interaction between learning and work. (p. 1)

Various definitions exist for CG. Over the years, career professionals have used this term in different ways. The term is usually used to point out the different career services and activities such as career assessment, career counselling and career information (Kidd, 2006). This research adopts the definition of the Organisation for Economic Co-operation and Development (OECD) (2004b) namely:

Services and activities intended to assist individuals, of any age and at any point throughout their lives, to make educational, training and occupational choices and to manage their careers. Such services may be found in schools, universities and colleges, in training institutions, in public employment services, in the workplace, in the voluntary or community sector and in the private sector. The activities may take place on an individual or group basis, and may be face-to-face or at a distance (including help lines and web-based services). They include career information provision (in print, ICT-based and other forms), assessment and self-assessment tools,

counselling interviews, career education programmes (to help individuals develop their self awareness, opportunity awareness, and career management skills), taster programmes (to sample options before choosing them), work search programmes, and transition services. (p. 10)

Finally, it is worth mentioning that to help clients, professionals used a wide range of job titles over the years such as careers adviser, career coach, CG practitioner, and career counsellor; yet, no significant difference in the delivery of career services was noticed (Yates, 2014). The most recent area that emerged in career development is career coaching. It is an evidence-based process that refers to a two-way discussion with a trained and qualified professional guided by an ethical code and based on career theories and tools that helps the client take positive career decisions to fulfil their work and/or personal goals (Yates, 2011). In addition, the author highlighted that career coaching is the most self-selected service from clients who search for positive, action-oriented and future-focused interaction.

History/roots of career guidance. Since Plato the subject of how one must employ his/her time has been open to discussion. “Plato’s Republic, in many ways, can be read as an exposition on what positions or occupations in life are appropriate for different individuals within a nation” (Moore, Gunz, & Hall, 2007, p. 21). Even centuries later, Locke (1695/1890) sustained the concept that finding a vocation is part of the individual’s moral education. The first books to advise individuals on how to choose an occupation were published as early as 1747 (J. M. Brewer, 1942). The contemporary origin of CG is attributed to Frank Parsons with the publication in 1909 of his posthumous influential book “Choosing a Vocation” in which he detailed the modern paradigm of vocational guidance. He created multiple useful techniques that he believed could assist in ending child labour and helping adolescents and adults identify their capabilities and choose a job (Herr, 2013). Prior to this, vocational choice

would have been based on informal practices when workers from villages and farms started moving to cities.

As Savickas (2008) suggests, the techniques and methods used for helping individuals make career choices evolved with the modulation of the social organisation of work. To date, four economic eras classify four distinct helping methods. These started from youth mentoring for agricultural communities (1850-1899), to vocational guidance for industrial cities (1900-1949), to career counselling for corporate societies (1950-1999) and self-construction in global economy (2000-2050). Consequently, guidance which was provided by amateurs with no professional background using non-scientific and untested techniques evolved to having CG practitioners with protected titles and specialised degrees/qualifications. Currently, all of the aforementioned methods are still in use depending on the economy's developmental status in which the method is being applied (Savickas, 2005).

Relevant theories. Gothard, Mignot, Offer and Ruff (2001) highlighted that CG is built on many relevant theories and that there is no single theory that can claim to completely describe the multilevel characteristic of occupational choices, and career development.

Career Decision Making theories. Theories of career decision aim at clarifying early career decision-making and the process of joining the workforce. The classic career theories founded on the reductionist paradigms of science, have predominated the 19th and 20th centuries. They have counted heavily on pinpointing structures and processes of a phenomenon in order to validate its reliability and replicability (Bloch, 2005). In the following section, a brief description of a wide range of these theories will be presented.

Social theories. First, social theories take into consideration an individual's social environment as a determinant of the type of job they acquire. They are related to socio-economic status of occupations and incorporate the segregation of the labour market and gender (Kidd, 2006). These theories described the structural restraints within, which CG takes place. For Roberts (1968) who introduced the "Opportunity Structure" model suggested that the transition to the employment stage is a question of available job opportunities rather than career choice. Roberts (1997) argued that career practitioners are best positioned to help young individuals operate within the limits of their specific situations. The social influence in career decision-making is based on other people's role in influencing the career preferences and decisions of individuals. The social theories are based on static and deterministic assumptions (Sonnenfeld & Kotter, 1982) which made models derived from these theories less functional where considerable mobility exists (W. Patton, 2008). Jencks (1979) pointed out through his study that social researchers neglected the impact of variations in the social status of an occupation over time. They also failed to consider the fact that individuals change throughout their lives and might also change occupations (Rogoff, 1953). In fact, individuals' behaviours have changed throughout life, they tend to change jobs several times and the choice of job is no longer the only aspect of career challenges to face (W. Patton, 2008) in the recent dramatic and irreversible change that affected the workplace (Amundson, 2005).

Relational theories. Phillips (1997) presented a new approach for decision-making process within a life-span and life-space context. This theory stipulates that career choices of individuals might be directly influenced by their interpersonal relationship status (Susan D. Phillips, Christopher-Sisk, & Gravino, 2001). Findings of Phillips *et al.* (2001) study showed that the relational theories expand the traditional taxonomies of decision-making perspectives and provide more robust view of relational themes in the career decision making process.

Despite the advantages of this theory, some limitations arose regarding its application with all types of population (Schultheiss, 2003).

Social Cognitive Career Theory (SCCT). The Social Cognitive Career Theory (SCCT) implies that academic and occupational interests are predicted by both self-efficacy beliefs and outcome expectations (Lent, Brown, & Hackett, 1994). These theories recommend diverse activities for career practitioners with a major role of being “co-ordinators of the human resources which either already influence individuals or could potentially contribute to their decision making” (Kidd, 2006, p. 29). Overall, the SCCT provides a comprehensive framework to guide practice in the development of career interest, career choice, and performance; yet, the variables suggested by the SCCT theory developed during early self-efficacy status were not found associated with future career indecisions suggesting that SCCT existing instruments need to be adjusted to suit the new changing world (Leung, 2008).

Person-Environment Fit theories. Second, the person-environment fit theories were used as the main framework over the last century for understanding occupational choice and career decision-making. At the beginning of the twentieth century, Frank Parsons, one of the pioneers who tried to explain what occurs when people choose occupations, based his theory on three assumptions: (1) individuals are different from each other; (2) so are occupations, and (3) by analysing both, it should be plausible to attain a match between a person and an occupation (Parsons, 1909). Over the years, this led to the need to collect reliable and valid data via aptitude tests’ and interest inventories as well as studies of job requirements, interests, and skills. This approach led to a course of action based on diagnosis and assessment using questionnaires and inventories. Starting in the 1950s, the Seven Point Plan of Rodger (1952) became a widely spread model used by career practitioners for diagnosis, assessment and making recommendation but has fallen out of use. The most developed

person-environment fit theory is Holland's "differentialist" theory that explains vocational behaviours and focuses on individual differences, which are characteristics that differentiate individuals from each other. According to Holland (1997), people pursue jobs that are consistent with their interests. He categorised individuals and occupational environments into six types and created the RIASEC (Realistic, Investigative, Artistic, Social, Enterprising & Conventional) hexagonal model of occupational interests where some types are considered similar while others are more distantly related (Holland, 1985a). Several psychometric tools were developed to assess Holland's interest types and to "provide an assessment of the supplementary concepts of consistency (the degree of compatibility of primary dispositions) and differentiation (clarity) of a person's personality pattern" (Holland & Gottfredson, 1975), p.10). Career practitioners used them to help people identify their interests and work environments and understand relationships between them. As Tinsley (2000) argued, person-environment fit theories have, to a general extent, found some support but the validity of this model must be revised when applying career typologies within a context different than the westernised contexts. (Ackerman & Heggestad, 1997) suggested that more research into fit frameworks should consider conceptual links between interests, values, and personality. In addition, some studies suggested including abilities into the fit models. Hence, abilities, interests and personality must be integrated in frameworks that will be useful for career practitioners' interventions (Kidd, 2006).

The congruence between individual characteristics and vocational choices has been categorised in trait-oriented terms (Dawis & Lofquist, 1984). Given the complexities and changes that are observed in modern careers, the trait theory like the social theories is impractical since it is based on the assumption that a static nature exists in terms of the interaction, person and environment. Several meta-studies showed that a match between the person and the environment is poorly correlated with outcome measures such as satisfaction

(J Arnold, 2004). Hence, the literature has shown little consensus with respect to what traits are most important and relevant to different vocations. Trait theory researchers have generally ignored the impact of labour market changes at the various stages of one's career (Schein, 1971) and played down the fact that traits such as cognitive abilities vary throughout a lifetime (Kolb & Plovnick, 1977). In addition, emphasising on the interpersonal traits and interactions are too complex to investigate; thus, recent perspectives suggested to only use these approaches on individual basis (D. Brown, 2002a). Therefore, with less steady personalities and occupations, models based on the trait theory seem to be less convenient for career choices or attainment and more applied to interest inventory (Savickas & Baker, 2005). Since career choice is a major life decision, career theorists and researchers are increasingly concerned about approaches that would describe the individual and the environment in more complex and dynamic terms than the traditional career approaches. New approaches have emerged to help individuals direct their lives, in relation to the contexts in which they are embedded. These theories will be discussed further in this chapter. The career stages and life development theories have received great empirical support (Osipow & Fitzgerald, 1996) in helping individuals in their vocational decisions. Despite the relative success of this wave, it is limited by certain assumptions (Sonnenfeld & Kotter, 1982). For instance, Vondracek and Reitzle (1998) argued that career development stage theories are challenged in the new transient world of work for their stability in defining universal transitions stages. This is especially important given that these stages are constantly changing between contexts and individuals.

Developmental Career theories. Third, the developmental career theories take into account the processes that lead up to expressing an occupational preference or making a job related choice. In the multiple models used in these theories, developmental stages and tasks, career identity and career maturity (CM) are fundamental concepts. Super is the best-known

advocate of developmental career theory who demonstrated that career development progresses through stages (Kidd, 2006). CM is an important notion in Super's theory. It "can be defined as the readiness to deal with developmental tasks appropriate to one's career stage" (Kidd, 2006, p. 20). Career practitioners use a developmental approach to guide clients towards a better awareness of self and situation, and help them build skills in decision-making. Their interventions are related to the client's developmental stage.

Most of career stages' critics are not specific to CM (F. W. Vondracek & Reitzle, 1998). Nonetheless, they argued that the use of maturation to clarify individual differences in development limits the application of these theories. Thelen (1993) argued that career stages' theories are based on the assumption of existence of some internal clock, some timekeeper or "pattern maker". Yet the transition into employment can no longer be used as a normative event taking place at a certain age and replicating a certain stage of CM (Fend, 1994). Transitions into adulthood or any stage vary considerably across historical time, cultures, macroeconomic contexts and the related opportunity structures (Near, Rice, & Hunt, 1978); nevertheless, career stages theories have neglected the dynamic interaction between these factors and work aspects. Chisholm and Hurrelmann (1995) pointed out that the rapid changes in historical time, the cultural and economic context, and the individualisation of educational pathways made the transition to adulthood unpredictable and uncertain. The latter also limits the usefulness and viability of normative expectations associated with CM models. Furthermore, career stages theories were criticised for their fragmented structure and lack of parsimony (D. Brown, 1990). Despite the fact that Super has tried to take into account the entire lifetime of an individual, the literature shows that his work dealt mostly with the ages 14-24. To illustrate this point, Swanson (1992) found in a literature review that career stages research focused on the exploration stage and initial career choice among adolescents. Finally, the majority of research on career stages diverged from the theoretical rationale

explained by Super and studied these stages by age rather than psychological fit to a specific stage. In these studies, it was found that satisfaction and performance varied across the stages, but not in any consistent order (Ornstein, Cron, & Slocum Jr, 1989). For instance, Gould (1979) and (Slocum, 1985) found contradictory results for the same stages.

Adult Career Development theories. Theories related to adult career development take a more dynamic perspective where career choice is based on career experiences throughout a continuous process that evolves over a life span: (1) theories of personal development and (2) theories of career development.

Personal Development theories. In the theories of personal development, development is seen as a multidimensional and multidirectional process that covers all courses of life and happens in several domains, at distinctive rates and in multiple diverse directions (Baltes, 1987). Several researchers viewed the course of life as a series of relatively stable stages that are qualitatively different from others. The main theories that contributed to this approach are those of Erikson (1959) and Levinson, Darrow, Klein, Levinson and McKee (1978). The focus of Erikson's work, based on Freud's ideas, is on ego development and its functioning. He developed eight stages of ego development throughout life. Another feature of his approach that interconnects with careers is the "triple book-keeping" concept, which posits three complementary dimensions, the social, the psychological, and the social dimension in order to provide a meaningful understanding to the individuals' identity (Baddeley & Singer, 2007). Personal development is fully understood only by considering it with the social context and biological development. Levinson et al.'s (1978) work is based on Freud's idea of the Dream, on the importance of mentoring in early adulthood, and on the process of anticipatory socialisation that help individuals anticipate developmental tasks which they may face later in their future. Other life course theories are

the continuity and narrative ones that career practitioners use to help people develop consistent stories about their lives and career identity prevailing themes (Kidd, 2006).

Criticism of the personal development theories is often related to the limitation in scope of the research done to validate these theories. In fact, across the majority of studies, few have followed the model of Levinson et al. (1978). For instance, Rhodes (1983) found that none of the studies on the life development theory considered variations of measures such as satisfaction across age categories as identified by Levinson (1977). In addition the longitudinal researches on life development tend to use short time frames. Levinson (1977) longitudinal study has followed participants for only four years. Hence, many tests showed that this theory lacks empirical evidence (Kopelman & Glass, 1979). Finally, these studies are also limited by the sample size used to study the effectiveness of the development theories in terms of career decision making (Sonnenfeld & Kotter, 1982).

Career Development theories. Theories and models of career development that have notably affected the field of CG are Super's life-career rainbow (Super, 1980), Nicholson's model on career transition cycle (Nicholson, 1990), and Hall's model of psychological success (Hall, 2002). These models envisage the life course in terms of transitional and learning periods that lead career practitioners to help people understand their experiences in terms of age-related stages and tasks as well as mini-cycles of transition. In addition, they imply that individuals must have a variety of career competencies including decision-making skills, career management skills and career resilience. However, most of the career development theories do not fully investigate the context implications in which careers are enacted (Dannefer, 1984; Savickas, 2002) and are founded in a world that was relatively stable compared to the rapidly changing and complex world (F. W. Vondracek & Porfeli, 2008).

Counselling theories. Counselling theories that have had significant implications in CG are (1) person-centred theories, (2) psychodynamic theories, (3) cognitive-behavioural theories and (4) narrative approaches.

Person-Centred theories. The person-centred approach was first used by Rogers (1942) who considered that the most crucial determinant of efficient career counselling is the relationship between the client and the counsellor. Counsellors' attitudes and qualities are key pillars whereas interview techniques are relatively unimportant. The three main attitudes and qualities are: congruence (or genuineness); unconditional positive regard and empathic understanding. In addition, understanding clients' subjective reactions to events and facilitating self-actualisation in clients are emphasised by counsellors.

Psychodynamic theories. The psychodynamic theories originated from Freud's work (Jacobs, 1999). They concentrate on early childhood experiences, defence mechanisms, and transference processes. Career counsellors who use these concepts with their clients, focus also on identifying life themes.

Cognitive-Behavioural theories. Cognitive-behavioural approaches are rooted in behavioural psychology and focus on the action that will lead to change. They have three key elements "a change-focused problem-solving approach to work with clients; a concern with scientific values; and attention to the cognitive (thought) processes through which people monitor their behaviour" (Kidd, 2006, p. 62). Career and life coaching approaches include the cognitive-behavioural theories in their work with clients.

Kidd (2006) has highlighted the following weaknesses in the above theories. First, the core conditions of the person-centred approach are insufficient in career counselling where information is recurrently required. The limitation of the psychodynamic approaches is the

numerous suggestions that are hard to test empirically. Finally, the relationship between the career counsellor and the client is rarely taken into consideration in the cognitive-behavioural approaches.

Narrative theories. The general aim of the narrative approaches is to help individuals understand and explain their experiences in a consistent manner and reiterate their story in a better way. Cochran (1997) claims that all other forms of narrative counselling are different from any other career counselling techniques because they focus on storytelling that deals with future career development.

The narrative approaches can be criticised when individuals are considered as the only authors of their stories. In fact the personal narrative approaches are always achieved through the interaction of the individual with others including the helper (Gergen, 1994). Hence, when practitioners are using the narrative approaches, they need to consider not only the individual's self-esteem but the esteem of others as well so they can take the best action in a social context and in an interactive world (Guichard & Lenz, 2005). Furthermore, Young and Valach (2000) noted, "once we bring narrative into fields like action and culture, we begin to address the problem of the separation of narrative and reality. Narrative is more than persons spinning stories as they sit in their armchairs." (p. 186). Thus, the narrative approaches are seen as stemming from a retrospective past.

Career Theories of the 21st century. Based on Herr (2001a) in the Career Development Quarterly annual review the theories of Super and Holland are still having a considerable impact on current research and practice and the theories of Parsons and social cognitive are still receiving great interest from scholars and researchers within the field of career development and counselling. However, in the late 20th century the context and the concept of career development have changed massively resulting in a number of challenges

that the career theories have to face (W. Patton, 2008). Inspired by from the physical and biological sciences, career theorists assumed the need to understand underlying relationships, structures, and function a whole complex system (Bloch, 2005). Hence, since 1994 Savickas provided an extensive work on the convergence of career theories and the relationships between different elements of the career decision making process suggesting a unified career development theory. To cope with the dramatic changes an active growth in the career development theories has occurred and lead to conceptualisation of new perspectives described as adaptive entities (Bloch, 2005). Influences of constructivism, systems theory and paradoxical theory have emerged to equip and support career practitioners. Some of these theories will be presented in the following section.

Contextual Action Theory. In light of these career development theory criticisms, replacing the segmental theories with approaches that consider the individual and contextual aspects is needed. Vondracek and Lerner (1982) introduced individuals' career development from a life-span developmental-contextual approach. This perspective focused on the dynamic interaction of individuals with the complexity and diversity of contexts. The value of this framework has been verified by different studies found in the literature (F. W. Vondracek & Porfeli, 2008). However, when adopting such framework, researchers generally encounter some difficulties in combining the macro-perspective including the social and personal life of individuals with the process-focused perspective related to the psychology of individuals throughout their life stages (Shanahan & Porfeli, 2002).

Systems Theory Framework. The Systems Theory Framework (STF) was introduced at the end of 20th century by McMahon and Patton (1995) but mainly developed in the 21st century as a metatheory of career relying solely on the systems theory, characterized by a circular depiction representing the interplay of influences that shape the career development

of individuals (W. Patton & McMahon, 2006). This framework emphasizes the influences that occur within the individual system surrounded by influences induced by this system and set in the global system of time (McMahon, 2014). This dynamic interaction is initiated by three processes (1) the recursiveness process, (2) the change over time process, and (3) the chance process (W. Patton, 2008). Since this framework values the contribution of all theories (W. Patton & McMahon, 2006), it was recognized for its applicability within a wide range of settings (McMahon, 2014). However, in practice the application of this framework requires an expensive knowledge and familiarities of several career theories so they can be pooled into best practices (Bimrose, 2004).

Chaos Theory of Careers. Pryor and Bright (2003a) stretched the system theories (Bussolari & Goodell, 2009) by presenting a new career theory build on the chaos theory initiated in domains of maths and physics (Bird & Arthur, 2002). The Chaos Theory of Careers (CTC) perceives individual as a dynamic open system interacting in a non-linear and complex way with an environment involving systems holding similar characteristics (Pryor & Bright, 2007a). The content rather than the process is at the hallmark of this theory especially in a world when unpredictable and chance events occur (McMahon, 2014). The CTC have been used in counselling to identify individuals' fractal pattern (Bright & Pryor, 2011). However, the CTC is still relatively novel and relies on chaos, which is in nature difficult to predict (Gleick, 1987), making the applicability of this theory more evident for the physics sciences rather than for the human and social sciences (Stapleton, 2008).

Happenstance Learning Theory. Krumboltz (2009) introduced the Happenstance Learning Theory (HLT) as a medium to facilitate the counsellor job in helping individuals understand why and how they evaluate their options and make a decision. He stated that human behaviours are the outcomes of planned or unplanned learning experiences. Many

researches found in the literature reported corroborative findings on the application of this theory in a fast pace changing world and on improving individuals' career development by emphasizing on unplanned events; yet, these researches are not extensive and further studies are needed to confirm further the value of this theory (Krumboltz, Foley, & Cotter, 2013).

Career Construction Theory. Savickas Career Construction Theory (CCT) of life design (Savickas, 2001, 2002, 2005) has enormously contributed to the development of career theories. The construction theory is a prolonged version of the vocational development theory of Super (Savickas, 2002). It is founded on three pillars, vocational personality, career adaptability, and life themes (Savickas, 2005). This theory involves a reflection process on individuals' behaviours and vocational activities revealed through a life story. Outcomes of this approach provide connections between individuals' vocational, personality, and adaptability elements (W. Patton, 2008). One of the most common applications of this theory is the life design counselling (Savickas, 2011). It is worthy to note that the CCT used the narrative theory as a means to tell stories and interpret them (Del Corso & Reh fuss, 2011).

Career Guidance Policies and Services

Public policies and career guidance. A century ago policy became important to vocational guidance (Herr, 2013). Yet, in CG, policy issues were not a focal point for most of the professionals and researchers in the field. Indeed, policy studies are not present in the professional/academic literature with a few exceptions (e.g., Pryor & Watts, 1991; Sultana & Watts, 2008; A. G. Watts, 1996, 2000).

The nature of CG services and their availability are powerfully dependent on public policy however very little attention "is given to policy matters in the training and education of counsellors and other career development professionals" (A. G. Watts, 2000, p. 62).

Usually, governments, directly or indirectly, fund most of the career services. It therefore becomes crucial for the CG professionals to maintain a tight relationship with policy-makers if they want to expand and improve their services. Likewise, policy-makers must encourage and motivate CG professionals to reach their objectives if they consider that CG services are a major policy tool. To execute policy decisions more efficiently, government officials are encouraged to consult with key career experts. Consequently, policy-makers have to build strong relationships with them and vice-versa. This relationship was seen by Mulvey (2006) as “a polarity between policy-makers and experts (practitioners, managers, researchers in the field): the former having the power, the latter the responsibility” (p. 28). Hence, as A. G. Watts (2000) underlined “policy-makers ... need to develop a deeper understanding of the nature of career development work. Practitioners need to develop a deeper understanding of the ways in which policy is developed and implemented” (pp. 62-63). Killeen, White, and Watts (1992) showed that individual decisions, through which the labour market functions, are being supported by CG services. In addition, market failures can be reduced by such services and the labour market will improve its normal functioning if career services reinforced the reforms. Moreover, governments’ substantial investment in learning (education & training) is optimised when the labour market is linked to such systems by CG services (A. G. Watts, 2000). The OECD (2004a) CG policy review recommended that the responsibility of CG services for young individuals in initial education must be shared between educational institutions and external agencies linked to the labour market.

Career guidance professionals. Career professionals work in these institutions and, like most professionals, they are affiliated directly or indirectly with professional associations that vary across countries. The appearance and progression of professional bodies have caused heterogeneity both within and between professions (Cheetham & Chivers, 2005; T. J. Johnson, 1972). Profession is “a generic category of a particular type of occupation, usually

one that involves knowledge, a service and an extended period of education, training and work experience with an experienced practitioner that has been practising for a number of years” (Evetts, 2005, p. 10). Nowadays, as stressed by D. Hughes (2013), the traditional conditions of trust, discretion and competence, which are mandatory in professional practice, are being frequently changed, regulated and challenged. A very good example of a professional body that made major improvements and has been strengthening collective effort to guarantee credibility, quality and professional stature is the Chartered Institute of Personnel and Development (CIPD), a UK based and internationally recognised professional body with over 135,000 members across 120 countries (D. Hughes, 2013). Contrary to the above, the author states that, in most of the UK, there is no obligation for organisations to “...use staff with a career guidance qualification (although in practice some do insist on this). Neither is there a licence to practise” (p. 60). In addition, the European Lifelong Guidance Policy Network (2011) concluded that there is incomplete information on current practitioners (qualified or unqualified) and contradictions in work-based and higher education qualifications and routes. To emphasise the aforementioned, A. G. Watts (1994) surveyed the occupational profiles of vocational counsellors in Europe and concluded that the deficiency of specialised training for career practitioners is due in some ways to the following factors: (1) huge variations in the training required of career professionals (ranging from university degrees in psychology or education, to postgraduate training and to no training at all), (2) varying definitions for job titles in careers, (3) but mainly because CG may not be perceived as a specialised area of activity by its own right. Indeed, the author found out that across Europe, individuals working as teachers, administrators, psychologists and other similar occupations have CG tasks to perform in parallel with their primary role. For example, in Australia, W. Patton (2000) demonstrated that individuals who did not participate in a complete training in CG felt very weakly prepared to start working as CG practitioners

compared to individuals who completed the Master's level training in CG and guidance and counselling. In addition, the author stated, based on the National Board of Employment Education and Training (1992), that "training varies according to state; in almost all states training for career personnel is largely ignored at a government supported level" (W. Patton, 2000, p. 186). Moreover, those findings indicated that individuals who obtained encouragement and funding from their educational institutions or organisations to undertake training felt better about their ability to deal with career competencies.

Similar to the above, concerns arose across countries (McIlveen, Hoare, McMahon, & Patton, 2010) and still now, internationally, the most crucial and important issue confronting CG is the dearth of training programmes and well-educated staff to deliver career-related services to individuals who need them (Savickas, 2001, 2005). For example, in the UK, a call for career professionals came from the Careers Profession Taskforce (Silver, 2010) who recommended creating and endorsing collective professional ethics and standards to help foster the status and integrity of CG. As a result the Career Development Institute was recently formed and will represent the UK careers professionals associations with the creation of a new Register of CG professionals based on established accreditation and the development of an online Careers Progression Framework for professional training (D. Hughes, 2013).

To conclude, the professionalisation was found largely linked to quality issues in CG and counselling (Plant, 2001). It stipulates, as stated by the author, for "upgrading competencies and drawing boundaries around careers guidance as a profession are responses to current and future professional challenges" (p. 4).

Quality and career guidance.

Retrospective on quality assurance in career guidance. Thus, a significant increase of interest was observed, along the years, over matters related to quality assurance (QA) (Lynne & Riddle, 1995; Plant, 2012; Sultana, 2003; The European Centre for the Development of Vocational Training, 2009) which highlighted that, to control how to better manage organisations better, CG services require mechanisms for the purpose of guaranteeing that they are undeniably delivering a quality service (Plant, 2012; Sultana & Watts, 2006). Hence, in order to deliver high-end CG services with skilful career professionals quality standards and guidelines in CG are needed. As a result of this, a deeper focus on the need for quality standards and models has been given for the provision of CG services in Europe and elsewhere (Plant (2012); The European Centre for the Development of Vocational Training (2009)). In some countries, extensive quality standards in CG were designed on the performance of staff or on the skills/competencies indicators; however, much less were based on official credentials of career professionals. The interest was focused on actual performance not on how career professionals were trained to perform their jobs (Plant, 2001). The author distinguished between standards and guidelines: “standards (which tend to be precise, directive, sometimes even rigid, with built-in checking procedures and/or sanctions, economically or otherwise) and guidelines which tend to be less directive, more general, and with no sanctions” (p. 6). Quality standards were introduced in different areas of CG. First, the less complicated and predominant ones in guidance provision were related to the occupational and educational information area (A. G. Watts, 1991). Second, the staff qualifications and competencies areas where different countries tried to secure the overall quality of CG were identified and issued by umbrella organisations, governmental, and NGOs. For example, in Germany, these institutions created the Directory of Certified Career Counsellors; in the USA, a licensure as a way to professionalisation; and in Canada, the

Canadian Standards and Guidelines for Career Development Practitioners. The third area was the delivery of CG where the focus was on quality procedures (e.g. ISO), management (publications standards), input-process-output and learning outcomes (Plant, 2001). Actually, the OECD (2004a) gave two directions in order to ensure quality in all phases of CG services. The two major proposed types of service delivery standards are the generic standards and the ones developed exclusively for the CG field. The generic ones can be applied to a wide-ranging variety of activities of which CG is only one [e.g. International Organisation for Standardization (ISO), the European Foundation for Quality Management (EFQM), Total Quality Management (TQM)] and the specialised ones have an accreditation procedure to enforce the CG standards (e.g. Matrix standards in the UK) (Sultana & Watts, 2006).

However, a mutual Quality Assurance framework in relation to guidance does not exist in Europe, despite several efforts that have been made to establish a common ground of the questions at stake (for instance via the efforts of the European Lifelong Guidance Policy Network - European Lifelong Guidance Policy Network (2011) under the Lifelong Learning Programme of the European Union).

Importance of quality in career guidance. Watt (1998) listed several reasons why quality in guidance is being measured: political reasons (to explain the service); funding purposes (to demonstrate that the service is valuable); customer advancement measurement (to evaluate execution of scheduled goals); to trace what is monitoring (happening); strategic planning (organisational development); and practice and policy improvement (measuring good practice, and bench marking). Therefore, to analyse the constituents of a quality guidance delivery, the European Centre for the Development of Vocational Training (2005), for example, suggested one specific model and recommended the hereunder to be included in quality guidance services as summarised by Simon (2014):

(1) Using appropriate guidance methods. The guidance methods used have an appropriate theoretical and/or scientific/empirical basis, relevant to the purpose for which they are used.

(2) Continuous improvement. Guidance services have a culture of continuous improvement involving regular user feedback and providing opportunities for staff for continuous training.

(3) Right of redress. Users have an entitlement to complain through a formal procedure if they deem the guidance they have received to be unsatisfactory.

(4) Competent staff. Staff providing guidance have nationally accredited competences to identify and address users' needs and, when appropriate, to refer them to more suitable provisions/services. (p. 183).

However, until now, no consensus has been achieved about what Quality Assurance in guidance might involve (Plant, 2012; Sultana & Watts, 2006). In addition, very few existing studies indicate which exact career elements are useful and which can improve guidance quality and efficiency, despite the special attention of public policy-makers in the field of CG services (Susan C. Whiston, Brecheisen, & Stephens, 2003). To add to the aforementioned, very few practical working tools are available to help organisations build quality into service principles, practices and policies at all levels of management (Bezanson & Riddle, 1995; Plant, 2012; Sultana, 2003).

Sultana (2013) mentioned that research is very useful in developing more efficient practice, yet, “a good deal of research remains tentative and exploratory, that care needs to be taken in applying the results of research carried out in other countries to local contexts” (p. 75). Research into the quality of CG practices faces several challenges:

(1) The fact that many countries frequently modify their types of services (Harris, 2000); (2) The nonexistence of an approved list of conjoint outcome assessments in the areas

of CG or of common methods used to collect data (D. Hughes, 2004; Maguire & Killeen, 2003); (3) typically assessment results are articulated in terms of their effect on the participants' future earnings and/or re-employment forecasts. Limited follow-up data is available for researchers on whether participants worked for a substantial period of time, and whether they reached better levels of deferred job satisfaction, work performance, or life satisfaction compared with those who do not have access to such services. In addition, very limited evidence is being collected on the social benefits of the career practices, such as decreased isolation, stronger families, better health, and reduced crime (Magnusson & Roest, 2004); (4) the variety of elements that can impact a person's choice about his/her career, including the number of individuals possibly involved in "helping" the person to make decisions, e.g. friends and family (D. Hughes, 2004); (5) enough detailed, or more accessible, results and descriptions are not being systematically presented to many career practitioners by academic researchers; thus, it is unlikely that positive outcomes will be transferred into universal use (Magnusson & Roest, 2004); and (6) it is still ambiguous how to assess the economic benefits of career programmes even for the most effective and efficient ones (Martin, 2000).

As a conclusion, many researchers and authors invite of additional rational and strategic research incorporating research on the processes of CG (Harris, 2000; D. Hughes, 2004; Magnusson & Roest, 2004). Harris (2000) argues that "if we are to expand the range of international knowledge on 'what works' and 'why' among active labour market policies, it is vital that more countries begin to evaluate their labour market programmes systematically" (p. 293).

Career Guidance in Universities

An increased need for the enhancement of CG services in higher education is a relevant concern and students that pursue their higher education are much more diverse than

before (Simon, 2014). Hence, the role of CG is becoming more critical with the growth of higher education (Lairio & Penttinen, 2006). In his review of services in higher education in England, Harris (2000) suggested putting more importance and efforts on practitioner training and service provision which includes career services. Furthermore, Engelland, Workman, and Singh (2000) pointed out that the provision of a wide spectrum of CG and job placement information for university students is considered to be a good standard in university career services. The authors added that services that prepare students to take better decisions while entering the world of work would lead them to more satisfying and fruitful careers.

Nevertheless, there are no standards, guidelines, assessment tools or models that have been designed and assessed particularly for evaluating the quality of university career services (Engelland et al., 2000). Therefore, in universities CG services are being assessed by employing “a number of existing generic quality models (ISO 9001 or EFQM) or models related to quality in academia. Although models and scope vary, these methodologies contribute to identifying strengths and areas for improvement in university career services” (Simon, 2014, p. 186). However, the author’s results revealed that limited objective assessment of programmes and procedures is actually being conducted. For instance, González López and Martín Izad (2004) suggested to assess the evaluation and accreditation process adopted by all European higher education institutions in order to establish the priority criteria to be considered by these institutions while analysing the activities of their guidance services. The latter would constitute a starting point to meet the needs of university students.

Career Guidance in the Mediterranean Region including Lebanon

The main findings on Lebanon were published in a major and fundamental report by Sultana and Watts (2008) following their review of CG policies and services in the MEDA countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, Turkey, and the West Bank and Gaza Strip) for a regional project launched by the European Training

Foundation. The comparative analysis in the “Career Guidance in The Mediterranean Region” report:

was built upon previous experience with career guidance reviews of the Organisation for Economic Cooperation and Development (OECD), the European Commission (Directorate-General for Education and Culture), Cedefop, ETF and the World Bank, and developed further the research methodology by paying particular attention to the socio-economic and cultural context of the Mediterranean region and its impact and limitations on career guidance services. It was based on the assumption that career guidance is not only important for individuals, but also can contribute to a number of public-policy goals in education and training, in the labour market and in social cohesion and equity. It further took into account the paradigm shift in career guidance that is emerging in the EU and OECD countries, from ‘choosing a career’ to ‘constructing a career’, from ‘psychological testing’ to ‘tasting the world of work’, and from ‘external expert support’ to ‘career self-management skills’ (Sultana & Watts, 2007, p. 3).

National experts prepared a country report by following a series of survey questions related to the above study theme. In their analysis (summarised in the below section) Sultana and Watts (2008) reported that in the CG field, French and French-Canadians models influenced Lebanon which has been under the French mandate for several years. Contextually, several economic, political, socio-cultural, and educational factors specific to the region hindered the development of CG services.

Economic and political factors include (1) rural poverty where access to education is very limited; which assumes the unavailability of CG, (2) extension of the informal sector mainly includes, low or unskilled jobs that do not require career information or career education programmes, (3) outside public sector, where formal activity is performed by many

family-owned small and medium-sized enterprises (SMEs) and where the career choice of young family members is excluded by the need of the family and its expectations, (4) despite their low pay, public sector jobs are very appealing given the job security and social protection they offer. Therefore public sector employees get job satisfaction and supplement their incomes with moonlighting in the informal sector, which makes it difficult for formal CG systems to tackle such complexities, (5) most individuals do not see the benefit of going to Public Employment Services (PES) which does not motivate PES to consider CG services as a priority, (6) labour exportation is very high especially in the Gulf states, Europe, and North America which raises the question of the extent to which CG services should focus on to study and work opportunities abroad, and (7) political factors constraint the range of opportunities and disturb CG services; in Lebanon, the civil war, and subsequent political instability have engendered economic stagnation and paused all development activities.

Socio-cultural factors involve (1) the importance of family influences where individuals are expected to act collectively; thus, western CG that focuses on the individual is irrelevant for such groups where young people are expected to respect the decisions made for them by elders, who are also involved in defining their identity, (2) the importance of gender-specific roles that are legitimized either by tradition or by religious interpretations and the importance of the patriarchal family are elements that career professionals must take into consideration; in the majority of cases, they are obliged to involve one's parents in the process, (3) *wasta* (influence) plays a major role in providing access to employment opportunities; this informal network is frequently used in the region which restricts the scope of CG; as a consequence, a lot of students are not interested in enhancing their ability to choose a career because the process is entirely dependent on their family's connections, (4) family and school systems are very directive, they encourage submission, obedience, subordination, and compliance which restricts the role of formal CG, and (5) fatalism is

embedded in the Mediterranean societies where people attribute the success and failures in life to external factors such as luck, god and destiny.

Educational factors are linked to difficulties in the Arab education system which has direct or indirect impact on CG: (1) culture of elitism, (2) teaching methods and curricula that focus on memorising rather instead of critical thinking, (3) different learning styles and needs of students which has not been taken into account by pedagogical practices, (4) summative assessment strategies with formal examinations (5) rigid centralised administrative structures resistant to innovation, (6) absence of adequately trained staff and (7) problems with equity i.e. major discrepancies between urban-rural and coastal-interior areas.

The current provision of CG is delivered in schools by guidance counsellors (under various titles) and encompasses a large scope that includes personal, social and educational guidance; however, long-term career issues are limited and in some cases non-existing. Generally, CG is better in private institutions as opposed to public institutions given the additional resources and small number of students in each class, which is especially the case in Lebanon. Career services are available to students in some universities; some services are limited to career fairs or are non-existing. Because public employment is weakly developed, restricted funding is available for CG. In a number of countries, non-governmental organisations (NGOs) launched CG initiatives; this is the case in Lebanon where a variety of faith-based and other organisations proposed some CG services especially to underprivileged groups. Finally, employers rarely offer CG services and while other private sector activities include career fairs like in Lebanon.

The issues facing CG are (1) staffing; the majority of individuals providing CG are poorly trained, (2) career information is very limited; in Lebanon, the annual university guide is the only regular publication, (3) Little attention has been given to quality services in the region, (4) evidence base; collection of data and level of scientific research is very weak, and

(5) strategic leadership is poor; the policy frameworks and legislation of CG are non-existing and if they are, they are purely definitional and disregarded in practice which is the case in Lebanon.

Sultana and Watts (2008) concluded that the MEDA countries have diverse needs because they are at different levels of development of carer guidance. Additional details are given in Abdul Ghani's (2006) described in his unpublished country report CG in Lebanon (report can be requested directly from the European Training Foundation).

Present Study

Setting the context. In the Middle East, one of the first CG centres was created in 1985 at the American University of Beirut (AUB) and funded by the Hariri Foundation (Hajj & Hamadeh, 1993). Staff members were trained on career development theories and counselling techniques, although their educational background was primarily as educational psychologists. The centre was initiated out of the following concern:

- (a) the absence of public career awareness, and consequently, career maturity;
- (b) the limited local job market and the lack of student knowledge concerning the world of work;
- (c) the nonexistence of career education, a process which should have been implemented as of the elementary level in all schools in Lebanon;
- (d) the unavailability of school counselors;
- (e) the lack of career guidance and counseling services and what they entail for assisting students, especially at the secondary level, in their career choice process (Hajj & Hamadeh, 1993, p. 58).

The centre's counselling processes focused on self-awareness, career exploration, career decision-making and career opportunities. It subsequently expanded its training to include school teachers as well.

However, Ghandour (1991) conducted a study to evaluate the aforementioned centre and showed that there was no significant difference between the counseled and non-counseled students in relation to career satisfaction, decision-making, and academic achievement, although mean satisfaction, decisiveness, academic fit, and academic achievement were relatively high. The overall findings, whether from the analyses of qualitative data or quantitative data, supported the idea that students benefit from CG if a variety of interventions are implemented in light of students needs. However, this study cannot be generalised neither to the Lebanese population nor to all AUB students since data were collected solely from students who were sponsored by the Hariri foundation and were of low to middle socioeconomic background. Given that the centre closed in 1996 and resumed its operations in 1997 under the name of the 'Career Guidance Department' at the Hariri Foundation offices, Ghandour's findings might no longer be valid especially as the new centre modified its services (Rafic Hariri Foundation, 2013).

Most published articles in Lebanon have focused on CG at school. Oweini and Abdo (1999) underlined that career counselling has been neglected in Lebanon for a long time but some schools, universities, non-profit, and private organisations do provide limited CG. Their study concluded that CG is an essential need that should no longer be neglected at the school level where structured CG must be available to all levels especially to secondary students. They pinpointed that “the most important developmental task which high school students must deal with is setting personal and professional goals that are congruent with their self-concepts and environment. For college-bound students, a typical task involves choosing a field of specialization in college, and hence, a career” (para.1). Moreover, the study demonstrated that the majority of students lacked information or guidance about higher education and had extremely restricted knowledge of career options beyond conventional professions (Vlaardingerbroek et al., 2007; Vlaardingerbroek & El-Masri, 2008). In her study

about the career expectations of university students across Lebanon, Abdul-Reda (2003) showed that the type of university (private/public), socio-economic status, education level of parents, connections and financial capital influenced students' expectations. In addition to the aforementioned, comparing middle-income countries with less developed CG systems to developed high-income countries (A. G. Watts & Sultana, 2004) shows that Lebanon is still in its early stages in providing adequate CG services and has a crucial need for career education and guidance (Ayyash-Abdo, Alamuddin, & Mukallid, 2010; A. S. Fleihan, 2011; Oweini & Abdo, 1999; Theodory, 1982; Vlaardingerbroek et al., 2007; Vlaardingerbroek & El-Masri, 2008; Vlaardingerbroek, Taylor, & Haig, 2009).

An unpublished exploratory study "Career guidance opinion survey" was conducted by Work and Organisational Psychology students at Université Saint-Joseph in Lebanon (2011) as part of their internship under the supervision of the researcher to gather feedback and explore attitudes of university students across Lebanon concerning their experience with CG services in schools and universities. It is worthy to mention that the majority of responses represented students' feedback from the major top universities in Lebanon. Findings from this study did not show an encouraging reality and ironically stressed the absence of public policy on the CG scene. Overall, the majority of students felt they did not receive any value from these services (see Appendix B). Only taking students to Open Day in Universities and advising students on academic programmes and jobs were perceived as valuable by students (see Appendix C). To illustrate, students' discontentment and irritation with their CG professionals, some discourses are reported to give a quick overview of students' experience with this matter. For instance, some students' statements were the following "the persons in charge of CG are not qualified for the job", "the so-called "tuteur" (career guidance practitioner) knows nothing about the subject", "advice was not good", "after 3 years of engineering study I was informed that my diplome will not be recognised by the Lebanese

authority”. This common perception will push others to hesitate when approaching career practitioners; one student for example said that “I wasn’t sure that they will provide me with the right advice” (see Appendix D). The majority of them showed a lack of awareness with regards to the role of CG practitioners. They thought that career practitioners’ major intervention are only related to assisting students to understand themselves and to make their own career decisions based on the market while totally ignoring that practitioners can be involved heavily in other activities such as implementing students plans for higher purposes (see Appendix E). Therefore, students reported extensively their personal research and their parent(s)/family member(s) advice helped them in their career decision making. However, career practitioners in universities appeared the least helpful in these terms (see Appendix F). Consequently, some students experienced career indecisiveness and reported that financial status, family directiveness, and higher probabilities to find a job, had affected significantly their choice and drove them to change their major of study several times (See Appendix G). In addition, students have been asked to give their suggestions to improve CG, a sample of their statements were, (1) “be obligatory in every university and college, public and private sector”, (2) “the lack of information related to market needs”, (3) “to have a clear idea about the job market needs for the 5 coming years”, (4) “change the programmes of the ministry of education, which date from the years of the dinosaurs. Include assistant beginning from the last 4 years of the school. Assist the students to understand the needs of the country. Create a law that forbids recruitment on personal basis and favours recruitment on potential basis, while including sever sanctions”, (5) “get real one let governments pay attention to the subject”, (6) “i suggest to consider it in the educational institutions first, and to have a public professional career guidance institution”, (7) “it has to be monitor from the top to the bottom with the intervention of many actors: ministries, associations, employment agencies, schools, universities and companies ... it will be good to open employment agencies comprising career

guidance. career guidance must be present in all schools”, (8) “stop wasta”, and (9) “create a law that obligates educational institute to provide this service” (see Appendix H). The use of this customer satisfaction surveys allowed the researcher to describe the guidance services (Scheerens, Glas, & Thomas, 2003) and to show that the majority of university students from both public and private universities reported a great deal of dissatisfaction with their university CG services (see Appendix B). However, relying solely on students’ satisfaction surveys rather than a complete audit might not provide insights for career development (Engelland, 2000).

Theoretical Foundations. Moracco (1976) and Theodory (1982) have found that Arabs are often influenced by their social environment and their career decisions making is greatly affected by their family and friends. However, based on the aforementioned criticism of the social theories, the authors’ findings are likely to be less applicable nowadays. In the Middle East, westernisation is influencing individuals’ vocational decisions by making them more independent from their social group and by offering them a wide range of possible occupations. Thus, despite the criticisms, this study argued that the career stages theory is the most suitable to address the research question concerning individuals engaging in studies at the university in Lebanon. Consequently, the present study will adopt Super’s developmental perspective on careers and its evolution.

The Career Maturity construct and its evolution. As Savickas (2001) explained, the important features of careers elaborated by Super include salience, maturation, stages, patterns, and themes. Career theory and practice have been influenced greatly by Super’s reflection and by research on each of these career constructs that formed the basis of CG and counselling.

The construct of CM has its immediate roots in Super's longitudinal Career Pattern study (Super, 1955). Indeed, in his 1991 interview he stated, "career maturity ... is an oversimplification, as one-word or two-word names often are. Really it is readiness to make career decisions" cited in (Freeman, 1993, p. 261). CM has been defined by Crites (1978b), King (1989) and Ohler, Levinson, and Hays (1996) as making correct career choices based on an individual's abilities. These include knowledge of what is required to make a career decision and the extent to which an individual's choices are both realistic and steady over time. It can also be defined as the degree to which one has acquired the necessary awareness and skills to make smart and realistic career choices; it is the readiness of a person to make informed career decisions and handle appropriate career development tasks based on his/her age (Luzzo, 1993; Savickas, 1984). For Super (1983), five dimensions constitute CM; these are: planfulness, exploration, information gathering, decision-making, and reality orientation. As for, Seligman (1994), he suggested that CM includes several numbers of lifelong stages where the nature of these processes varies among individuals. Another model of CM introduced by Crites (1965, 1971), includes both a cognitive and an affective dimension. Later, a model for adults was introduced (Super, 1977; Super & Kidd, 1979) and refined with empirical findings (Super & Knasel, 1979).

Super's theory on CM has a great emphasis on the extensively researched school-to-work transition (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997); however, the CM construct became less and less relevant as more adults faced organisational and economic changes that negatively affected their careers (Ebberwein, Krieshok, Ulven, & Prosser, 2004). To address this issue, the term of "career adaptability" was introduced (Super & Kidd, 1979; Super & Knasel, 1979, 1981) and defined as the "readiness to cope with changing work and working conditions" (Super & Knasel, 1981, p. 195). The challenges that adults encounter are essentially different from the ones of adolescents, not linked with any particular age or stage

and “school-to-work may not be the most significant transition in an individual’s career” (Ebberwein et al., 2004, p. 293). In that way, Super and Knasel (1981) reduced any prominence on maturation and growth, and highlighted the interaction between the individual and his/her environment with an emphasis on proactive and forward-looking individuals. In a later stage, Savickas (2005) created the Career Construction Theory based on the traditional features of CM and introduced the 4 Cs of career adaptability, dimensions that he confirmed in 2011: concern (planfulness, anticipation, awareness, involvement and orientation), control (decisive, assertive and conscientious actions), curiosity (learning about world of work), and confidence (career decision-making & occupational choice). Omar and Noordin (2013) suggested starting to teach career adaptability skills in higher education institutions. Unfortunately, “research on career adaptability has been limited by a lack of an agreed upon operational definition and affiliated measures, although important progress is being made” (Rottinghaus, Buelow, Matyja, & Schneider, 2012, p. 124).

Measurements of Career Maturity. A number of psychometric tools exists to measure CM. E. M. Levinson, Ohier, Caswell, and Kiewra (1998) have listed six major instruments which are: The Career Maturity Inventory (CMI) (Crites, 1978a, 1978b); the Career Development Inventory (CDI) (Thompson, Lindeman, Super, Jordaan, & Myers, 1981); the Adult Career Concerns Inventory (ACCI) (Super, Thompson, & Lindeman, 1988); the Assessment of Career Decision Making (ACDM) (Harren, 1979); the Career Beliefs Inventory (CBI) (Krumboltz, 1994); and the Career Decisions Scale (CDS) (Osipow, Carney, Winter, Yanico, & Koschier, 1976). In addition, career adaptability inventories are still under validation. These include, the Career Futures Inventory (Rottinghaus et al., 2012), the Career and Work Adaptability Questionnaire (CWAQ) (Nota, Ginevra, & Soresi, 2012), and the adaptation of the Career Adapt-Abilities Inventory (CAI) (Savickas & Porfeli, 2011) in different countries (Mrowinski, Kyrios, & Voudouris, 2010).

Career Maturity in Lebanon. According to Theodory (1982), CM is rarely studied in Lebanon. Theodory (1979, 1982) found that Lebanese students, in both public and private sectors, made immature career-related decisions principally because of the absence of professional guidance and counselling programmes in schools. Therefore, in such cases, students ended up turning to their parents and friends to seek career counselling in order to fulfil the guidance gap. However, parents are not qualified to perform such a task. In addition, the author found that students are somewhat misled by “idealistic career aspirations which are at odds with their academic abilities and/or which do not match the rigid requirements of Lebanon’s educational system” (p.129). Theodory (1982) also concluded that students’ career decisions are driven by their personal interests. Finally, it was suggested that if the educational system institutionalises formal CG programmes, unrealistic perceptions regarding career choices and directions could be prevented among young Lebanese people.

Theoretical framework. As stated in the above review, the CM construct is central to the development theory and is the most widely used career construct internationally (Naidoo, 1998); yet, this construct must be investigated further (Super, 1990). Studies have explored a variety of associations with the CM construct over more than five decades. In his CM international context review, M. B. Watson (2008) stated that CM has a sequential and developmental nature. The author mentioned that the construct validation movement within a modernist approach attempted, by focusing on the interrelationship of theoretical variables, to relate cultural, educational, historical and socio-economic contextual elements to CM which affects the readiness of the individual to make career choices. Career readiness (CR) was defined as “an on-going process of changing to meet contextual circumstances rather than maturation of prescribed behaviours” (p. 519). Therefore, adopting a framework integrating the contextual aspect is needed. The developmental-contextual perspectives on careers across

the lifespan introduced and developed by Vondracek and Lerner (1982) was found suitable to overcome the challenges imposed by a fast pace changing world.

The literature review on Lebanon shows that none of the studies found by the researcher addressed the moderation effect of socio-economic factors on the relationship between CM and its components, thus predicting CR.

In addition, H. Hughes and Gration (2009) stressed the importance of linking theory, research, policy and practice. Thus, the researcher decided to investigate the CR of university students in Lebanon and to assess the relationship between CM and career exploration (CE), career planning (CP), career decision-making (CDM), and world of work knowledge (WWK), taking into consideration public policies, career services, and the moderation effect of one dimension of the contextual factors, the Lebanese socio-economic dimension.

Ignoring one of these elements decreases the impact of evidence on policy making in the guidance field. Subsequently, the Holistic Career Guidance Framework (*Figure 1*) is a new theoretical framework designed by the researcher that attempts to answer the study's research questions. CE is the curiosity to search for information, to talk with career professionals, and to check resources available to oneself to gather information about careers; CP is the planning of one's career, the discussion of the plans with someone's entourage, and the engagement in activities to find out one's interests; CDM is the application of principles of rational decision-making to one's career choices, and WWK is the knowledge one has about his/her desired job/career, occupational group, and related requirements (Super, 1983).

The Holistic Career Guidance Framework

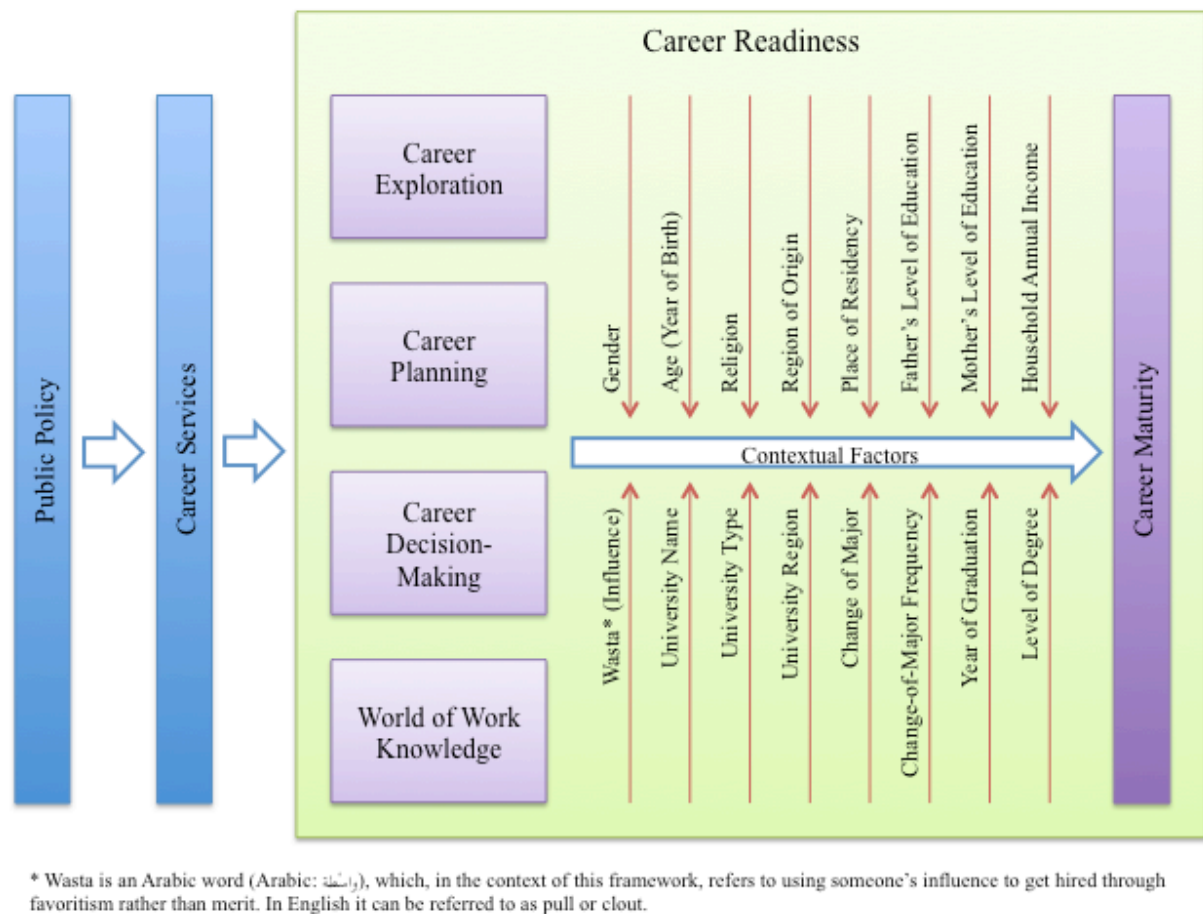


Figure 1. The Holistic Career Guidance Framework

Research Questions. The quantitative study will investigate how the socio-economic and demographic factors moderate the impact of career exploration, career planning, career decision-making and world of work knowledge on CM, thus CR.

The qualitative study will investigate the perception of CG professionals on the provision of CG and the related public policies.

Q Method

The Q method was first introduced and developed by the British physicist-psychologist William Stephenson (1935) who was interested in exploring subjectivity on a topic not hypothesised by the researcher from the standpoint of the lived experience of the

individual as cited by R. Stainton Rogers (1995). He introduced the concourse theory of subjective communicability (Stephenson, 1978, 1986), where he defined communicability as an observable domain on self-referent statements. For any situation or context a 'universe of statements' called concourse is identified from a shared knowledge and meaning (Stephenson, 1986). In the empirical field, a new subjectivity will grow from the identified concourses using the Q-sorts (Stephenson, 1982). Later on, this methodology was developed by Brown (1980) to give meaning to subjective experience in social science research (S. Watts & Stenner, 2005) by providing a scientific approach while still sustaining the depth, diversity and individuality of a more humanistic approach (S. R. Brown, 1980).

Cordingley, Webb, and Hillier (1997) indicated that it is difficult to classify Q as either a qualitative or quantitative method. In fact, some researchers such as Watts and Stenner (2005) referred to Q as being 'qualiquanlogical' since it derives from different traditional research. The Q methodology shares with qualitative methods the principles of producing rich data where the subjective meaning and understanding of participants become the focus (Simons, 2013). This methodology uses correlation and factor analysis, which are more analogous with quantitative methods (Stenner & Stainton Rogers, 2004). Thus, the Q methodology offers a technique to construct broad categories of the investigated phenomenon and explore patterns and relationships within and between these categories (Coogan & Herrington, 2011; Shinebourne & Adams, 2007) while reducing the interference of the preconceptions of researchers (Ellingsen, Størksen, & Stephens, 2010). Hence, it is crucial, when addressing the critical kind of research questions, to ensure that different participants' voice and viewpoints are preserved rather than conceded by the researcher's self-reference on the studied topic (B. McKeown & Thomas, 1988). According to the literature review, the applications of Q-method can be ambiguous and this methodology raises some ontological and epistemological concerns (Ellingsen et al., 2010). Thus, it is fundamental to understand

the different elements of this method and apply them appropriately. Dziopa and Ahern (2011) conducted a systematic review of the published Q-studies resulted in developing a Q-sort protocol, which maximises the use of Q-method. This protocol involves five steps drawn by Brown (1980) which are most consistent with Stephenson's design. The five steps are the following:

- Identifying a concourse on the topic of interest
- Developing a representative set of statements (Q sample)
- Specifying the respondents for the study (P-set) and the conditions of instructions
- Administering the Q sort (rank ordering of statements)
- Factor analysis and interpretation

Chapter 2

Mixed Methodology

Introduction

To answer the research question, a set of methods is needed. Kothari (2009) elucidates where the term of research methods fails to answer the research question and how research methodology solves the research problem. He defines research methods as a set of analytical tools and methods used to arrive to a solution to a given problem. This definition neglects assumptions underlying various methods and selection criteria on which researchers need to rely to select the appropriate set of techniques and methods to investigate the studied topic. Research methodology will address the problem with a scientific approach. It considered the logic behind methods and techniques.

Mixed Methods Research in Career Guidance

The OECD showed, through a wide range of international reviews of CG policies in 37 countries, that the provision of CG is globally more fundamental to public policy (A. G. Watts & Sultana, 2004). The main challenge of producing meaningful results that can be communicated in clear and compelling ways to the addressed audiences will depend on the researcher's ability to identify and implement the appropriate, effective, and efficient methods. According to the literature, studies on CG using mixed methodologies presented meaningful findings that are worth considering. They integrate depth and breadth of knowledge to the utility of mixed methodologies within the field of CG and they provide a construct that can be generalised to the same context. In addition, research using a complementary nature of qualitative and quantitative methods might expand our understanding of a phenomenon and encourage greater confidence in scientific conclusions by contributing to a growing evidence base about a particular issue (Tashakkori & Teddlie,

2010). Despite these advances in mixed methods theories and different findings in the literature that tried to explain in depth how mixed methods should be carried on, it was found that researchers in psychology are still not mixing research methods for many reasons.

According to Todd, Nerlich, McKeown and Clarke (2004), practitioners in psychology still do not have the needed skills to carry out both methodologies. As a result, policy-makers are relying on poor research methods (Dellinger & Leech, 2007) to investigate current CG status.

The utility of the combination of methods to inform changes in policy (Caracelli & Riggan, 1994) will depend on the quality of mixing methods. Tashakkori and Teddlie (2009) emphasised the need to use quality audits in order to evaluate the efficiency of the undertaken study. Hence, a review by the researcher of the existing study found in the literature reveals the absence of systematic reviews that evaluate the utility and the quality of mixing methods within the field of CG.

Yet, it has been shown that the discipline of psychology has a great impact on the foundation of many theories and assumptions in the CG field (D. Brown & Brooks, 1984). According to academics and practitioner references, CG and career counselling are similar in nature (Schiersmann et al., 2012). Thus, first this section attempted to report findings to the mixed methodologies from studies in the counselling fields with the purpose of showing the usefulness of mixed methodologies within the field of CG. Bartholomew and Brown's (2012) study is used within this paper to provide a framework of mapping methodologies by systematically reviewing published articles where mixed methods research has been applied. The study's results have been brought together into a comprehensive framework that will reveal conceptual issues by elucidating the journey of researchers during the implementation, prioritisation, and integration of data. They highlight the use of different mixed methods pattern in this field.

Second, this section will systematically review studies published within the CG literature across the world, then specifically in Lebanon, to illustrate and confirm the use of mixed methodology within this field. In doing so, the usefulness of this methodology may become more concrete and easier to understand.

Career counselling systematic review. The first framework was presented by Bartholomew and Brown (2012) who were concerned about the choice of mixed methods design and how these methods capture psychological theory; their research resulted in 12 articles that span across a variety of psychology's subfields. They found that mixed methodology can be used to fully understand the complexity of psychological phenomena by giving prediction with insight and accumulation of facts using complex thinking (Henrich, Heine, & Norenzayan, 2010). Indeed, the integration of qualitative methods and qualitative measurements will provide researchers with a complete view of the impact of culture on psychological processes, which allows them to develop instruments specific to a culture (Creswell, 2007).

However, Bartholomew and Brown (2012) found from the literature that researchers may fail to bring new knowledge when they adopt mixed methods through their process of research, especially when they do not understand the concept of worldview and they use all means to answer a research question. For instance, the researcher is after all not an objective person. He/she could be brought consciously or unconsciously into the act of play (Saunders, Lewis, & Thornhill, 2007) and his/her reflexivity could affect the mixing methods (Green & Preston, 2005). To illustrate, a new researcher will challenge him/herself and choose mixed methods just to broaden his/her self-knowledge (P. Johnson & Duberley, 2003). Thus, the authors of this study suggested that researchers must expand their knowledge with respect to the variety of mixed methodology designs and patterns. Furthermore, they indicated that many writers introduce their interpretations in the literature with little reference to the

existing theories and facts. Therefore, any wrong interpretation can bias future studies because mixed methods are highly correlated with pragmatism (Riessman, 1993). Hence, researchers are advised to offer rationales for the use of mixed methodology by properly citing the design of the mixed methods used within their research in order to align themselves with the mixed methodology literature. Researchers might not have rational writing in the literature.

Yet, Hanson et al. (2005) express that despite the challenges to overcome and the mistakes that can occur while conducting mixed methodologies, this design is seen as a viable alternative to quantitative and qualitative designs conducted solely. Even though the researchers lacked some skills when using mixed methodology, their studies remain models for new generations to think about methodology. Consequently, systematically reviewing articles published in the CG field would bring further evidence as to the effectiveness of this methodology.

Systematic review of career guidance studies. The limitation of skills and knowledge was investigated by McMahon and Watson (2005) when they demonstrated that career studies are dominated by the positivist paradigm and the quantitative dichotomy. A new worldview is crucial in the modern era especially with the new shift in the psychological contract. Individuals perceive themselves and the outside world differently. Researchers did not investigate widely the qualitative paradigm, even though dealing with human beings necessitates closer observation, which concentrates on the philosophy of knowledge. The postpositivism and constructivism paradigms which focus on the study of an individuals development in postmodern research is needed.

The utility of the combination of two paradigms within the CG field will be shown with a mapping methodology that consists of identifying all career guidance studies in the literature. To find examples of mixed methods research in CG, the PsycINFO database was

used once to retrieve articles published between 2010 and 2013. The search resulted in four articles selected from the worldwide literature and two from the Lebanese literature.

Systematic review in international settings. Lewin and Colley (2011) used a multiphase mixed methods research design (qual and (QUAN and QUAL/connected)) to map the state reforms in recent years, identify any changes with the career advisers' practices, and finally inform policy-makers about infrastructural support and professional development for greater effectiveness. First Lewin et al. (2011) used a qualitative method to serve as a preliminary analysis which supports the results of the second study, and confirms the consistency of coding, evaluates the thoroughness of the analysis, and identifies new and/or higher-order categories. By adding the qualitative data, the writer grounded the assumption that CG should meet international policy in order to enhance young career development. The authors stated the study's purpose, implemented data collection simultaneously, prioritised the data collected from the second study, and used the qualitative data from the first study to enhance the application of the second one. It must be noted that the authors did not specify a rationale for using a mixed methods design.

In contrast, Carson (2011) used a triangulation method research design (QUAN and QUAL). A concurrent triangulation design was used to answer complex questions (Harden & Thomas, 2005) in CG. Qualitative data were collected to contribute to the growing evidence of quantitative data and to provide exemplary practices. The author used the triangulated method design as a mean to ensure that qualitative and quantitative data reinforce each other and provide a complementary framework for the data analysis process (Creswell, 2009). In addition, such a design would help uncover divergences which may not be observed when conducting only one method (Kelle, 2006). The author used an explicit theoretical lens and an advocacy lens, stated the study's purpose and rationale for using mixed methods design, implemented data collection concurrently, prioritised the data equally, and integrated the data

after analysing it during the interpretation phase. After having analysed the quantitative and qualitative data separately, the results were triangulated.

A sequential explanatory design that was identified and will be described here.

Howieson and Semple (2013) used a sequential transformative design to understand the impact of career websites on pupils' career management skills. In this study, the authors did not use an explicit advocacy lens and did not state the rationale for using a mixed methods design. They reported one research question (2 QUAN and 3 qual), implemented data collection sequentially (1 QUAN followed by 1 QUAN followed by 3 qual), prioritised the quantitative data, and connected the data analysis. Data were collected and analysed in two sequential phases. The quantitative data was collected and analysed first and the qualitative data second. The authors stated that they intended to collect qualitative data to guard against the influence of the participants' responses to the surveys. The qualitative data was included to augment, support, and explain the quantitative data.

One study was sequential exploratory. In this study, Kuijpers, Meijers, and Gundy (2011) used the qualitative phase as a lengthy procedure to strengthen the quantitative data. This sequencing allowed the researchers to use the qualitative data as an opportunity to explain the intricacies of statistical analysis while considering the existing contextual considerations. The authors did not use an advocacy lens, or any specified rationale for using a mixed methods design; they only stated the study's purpose and reported one research question. They collected data sequentially (qual followed by QUAN), prioritised the quantitative data, and connected the data analysis. The qualitative data was used to augment the quantitative data. This combination represented an interesting choice since the authors' approach emphasised the link between the two findings as the qualitative data shaped the quantitative data and resulted in the creation of an ethic measure (Creswell & Plano Clark,

2011). The researchers noted that this process helped them develop the appropriate measurements for the target population.

Systematic review in Lebanese settings. In Lebanon, two studies using a mixed methodology were identified. Ghandour (1991) used a multiphase design to study the impact of counselling and gender differences in career achievement, career satisfaction, and decision-making. In this study the author (1) did not use an advocacy lens, (2) did not have a rationale for using a mixed method design, (3) claimed using experimental design with no evidence of control of nuisance variables, (4) implemented the data collection concurrently and sequentially (QUAN and QUAL at the same time then QUAL), (5) did not mention whether the data was prioritised equally or not, leaving readers confused about the ultimate purpose of each study, (6) and during the interpretation and the analysis phase, the results of each study were interpreted separately to validate or not the formulated hypothesis; however, both results were not integrated in the overall analysis to answer the research question. According to Creswell and Plano Clark (2011), the multiphase design is usually used to answer a series of incremental research questions that underlie one ultimate research objective. Generally, such a research or programme is evaluated over several phases and over multiple years. It would be acceptable if Ghandour (1991) employed such a design to evaluate, over several years, the effectiveness of the Hariri foundation CG centre on a short and long term basis. Finally, the main purpose of a mixed method is eventually to collect, analyse, and integrate quantitative and qualitative data in order to present more corroborative findings (R. B. Johnson, Onwuegbuzie, & Turner, 2007); however, the author mixed only the collection of data without integrating it in the interpretation phase.

The second study consisted of a multiphase mixed method design (QUAL and QUAN and QUAL) (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Fleihan (2011) collected data over three phases to investigate the CM of Lebanese grade 12 students: qualitative

followed by quantitative followed by qualitative. The author did not use an advocacy lens, did not mention a rationale for using a mixed methods design, stated the study's purpose, implemented data collection sequentially, prioritised the data equally, and integrated the data after analysing them. The general procedure used within the study allowed the author to address four research questions, which evolved to address a larger research question, using three individual studies. However, as discussed before, the appropriateness of a multiphase design within a context similar to this study's context is questioned (2011). In addition, Sultana and Watts (2007) argued that data gathered from masters' studies would not be considered as robust especially when they are employed to guide policy-makers in formulating CG standards.

This review set out to provide an overview on how mixed methods are used in CG research. Analysing the existing studies driven by mixed methodology in international and specifically in Lebanese settings revealed consistency in findings with systematic reviews in psychology and counselling fields. In general, all studies used different designs of mixed methodology to examine a number of common themes, which are of great importance and interest for policy-makers. The researchers of these studies tended to state the purpose of their studies and their research question. Yet, some of the researchers did not mention their rationales for using mixed methodology nor the advocacy lens to depict the design of their mixed methodology. In addition, in the Lebanese studies mentioned earlier, more attention needs to be paid to the choice of mixed methods design and to the scope and rationale for mixing, so that other researchers grasp all the components of the methodology used within the study, which yielded robust findings. Hence, the researcher will be able to build on what has been found in previous studies, and develop research questions that move forward evidence-based practices.

It must be noted that while conducting this review it was found that the majority of published articles in CG used a quantitative informative approach with the aim of exploring some causality. However, predicting without insight and collecting data without complex thinking (Toomela, 2007) will not fully capture the complexity of psychological phenomena as the mixed methodology does (Henrich et al., 2010). Finally, it is important to highlight that this review was not intended to rate the quality of these studies but to offer a description and categorisation criteria. It is quite likely during this review to have some studies published within the identified period; yet, these did not show in the data base research results and were thus not reported in this section.

Current Study Epistemological View and Methodology

The research questions of this study were examined using a mixed methodology, which brought an innovative approach to the research. The study used the pragmatic paradigm with a hypothetico-deductive research process using mixed methods as a methodology. A convergent parallel design was adopted.

Mixed methodology paradigm. As discussed previously in this chapter worldviews war existed for many years stipulating that compatibility of quantitative and qualitative methods is impossible due to the discordancy of the paradigms that underlie these methods. Yet, many researchers such as Datta (1994) provided the literature with many reasons to contradict this belief. For instance, both paradigms have been used excessively by researchers, providing significant findings, and influencing existing policies. Thus, scholars, researchers, and funding agencies urged the use of such a methodology. Hence, they used a pragmatic mixed methodology, which had countered the paradigms war by allowing researchers to address the research question via asking different specific questions and

combining diverse methods that necessitate the integration of different theoretical perspectives to analyse the gathered data (J. Brewer & Hunter, 1989).

Furthermore, the pragmatic paradigm was adopted within the current study for other reasons. First it was argued that this paradigm will accept to have a deductive logic (Tashakkori & Teddlie, 1998) which is the research cycle (Krathwohl, 1993) employed in this study. Indeed, the study chain of reasoning moved from a deductive logic from the existing theories, grounded results, explanations, descriptions, and narratives in the literature, to a tentative hypothesis guided by the researcher's personal value systems, followed by the use of the most appropriate methods to analyse findings with the aim of answering the research question (Cherryholmes, 1992). Another reason for espousing the pragmatism paradigm relates the perception of reality. As a matter of fact, exploring the CG field in Lebanon cannot be determined conclusively the casual relationships between policy-makers, CG services and CR will never be completely justified. Yet, some approaches would bring more corroborative outputs than others (Cherryholmes, 1992). Finally, the researcher believed that conducting a convergent parallel mixed methodology design would help in addressing the research question; yet, it was needed to make sure that this design suits the paradigm of the study methodology. Creswell and Plano Clark (2011) reasoned that the pragmatic paradigm would form an "umbrella", for mixed methods studies, to help them overcome the challenges encountered during the collection, analysis, and unification of quantitative and qualitative interpretations. They stated that this paradigm is well suited for convergent design since it helps combine two approaches into a wider understanding.

After a thorough consideration of the aforementioned, the pragmatism justifies the use of a mixed methodology within this study.

Epistemology. The researcher typically used the positivism epistemological approach during the quantitative phase to develop the CR instrument, to measure variables, and to

assess statistical results. During the second phase, the researcher shifted to the constructionism approach to give an in-depth description of multiple perspectives. The rationale for this approach is that quantitative data and their subsequent analysis provided a general understanding of university students' CR in Lebanon. The qualitative data and their analysis refined and explained those statistical results (Morse, 1991) by exploring career professionals' subjective opinions regarding career services and public policies in Lebanon.

Epistemological approach of the quantitative study. For the quantitative investigation of CR, the researcher chose to build a questionnaire. Even if the quantitative examination of the world has existed since individuals first began to record the number of events and objects, the modern idea of quantitative research has its roots in the positivist framework of Auguste Comte (Kasim, Alexander, & Hudson, 2010). Influenced by David Hume (d.1776) and by Immanuel Kant (1781), Comte believed that all sciences necessitated a universal method of investigation. He was the foundational theorist of positivism creating the *Société Positiviste* in 1848 (Crotty, 1998). The epistemology of positivism declares that knowledge is objective and neutral; it is the “philosophical view that scientific knowledge comes from direct observation and application of empirical methods” (Gallagher Tuleya, 2007, p. 227). The objectives of positivism are description, prediction, control, explanation, and the all-encompassing purpose of positivism is the generation of universal laws (Leahey, 1987). Thus, applying a hypothetico-deductive approach to understanding the world enables cause and effect relationships to be identified. Empiricist ideas came under massive attack in the middle of the 20th century (Suppe, 1977); therefore, the influence of positivism dropped considerably through the 1960s and 1970s. However, in many disciplines, positivism dominated in the 20th century several research initiatives including psychology (Breen & Darlaston-Jones, 2010) and “within contemporary psychology, positivism remains in a

privileged position” (Breen & Darlaston-Jones, 2010, p. 70). The aim of the study is to investigate the following hypotheses:

1. The relationship between CP and CM is moderated by the socio-economic factors
2. The relationship between CDM and CM is moderated by the socio-economic factors
3. The relationship between CE and CM is moderated by the socio-economic factors
4. The relationship between WWK and CM is moderated by the socio-economic factors

Epistemological approach of the qualitative study. The viewpoint of social constructionism as research is concerned with finding the various techniques of constructing social reality that are available in a culture, investigating the situations of their use and to trace their effects for human experience and social practice (Willig, 2008). To illustrate, several psychological categories such as: emotion (Harré, 1986), prejudice (Potter & Wetherell, 1987), and psychopathology (Parker, Georgaca, Harper, McLaughlin, & Stowell-Smith, 1995), have been critically studied by social constructionist researchers in psychology in order to demonstrate how they convey a way of constructing reality rather than just reflecting it (Willig, 2008). In constructionism, the focus moves away from personal meanings and knowledge structures towards individual’s social counterparts, shared viewpoints, bodies of knowledge, or discourses (McHoul & Grace, 1995) that symbolise the fundamental, increasing and publicly reachable product of numerous human selections. These products described by John Dewey (1931/1985) as the concretion in external form of human purposes, desires, emotions, ideas, and ideals were called social facts. Thus, constructionist research targets predominantly these social facts. “Such research generally attempts to understand and map the currently predominant viewpoints or bodies of knowledge relative to a particular context, event or object of enquiry” (S. Watts & Stenner, 2012, p. 42).

“Q methodology was identified as a research method capable of identifying the currently predominant social viewpoints and knowledge structures relative to a chosen

subject” (S. Watts & Stenner, 2012, p. 42). It creates an opportunity to conduct psychological and social scientific studies in the quantum image and consequently in the image of perhaps the greatest successful scientific paradigm. Therefore, it is a useful tool for conducting research in the constructionist tradition. It acknowledges the key or preponderant views to be identified relative to a specific subject matter and rendered empirically noticeable.

“Viewpoints, understood as operant behaviours, are quantum phenomenon of Q methodology” (S. Watts & Stenner, 2012, p. 45). The aim of the study is to investigate the following hypotheses:

5. CG professionals in Lebanon provide different type of CG services
6. Types of CG services vary based upon the CG professionals’ educational background
7. Types of CG services vary based upon the CG professionals’ professional background
8. The level of need for public policy varies from CG professional point of view to another
9. The absence of public policy affects CG professionals’ choices of CG services

Research Design: The Convergent Parallel Design

The Convergent Parallel mixed methodology design was used in this study. Creswell and Plano Clark (2011) stated that this design is one of the most mutual approaches used across fields. It consists of one phase, where the quantitative and the qualitative study occur at the same time (Quant + Qual). The intent of applying this design was to gather different yet complementary data on the same area of interest (Morse, 1991) and to combine the strengths and non-overlapping dimness of the quantitative method with those of qualitative data (M. Q. Patton, 1990), in order to address the research question. Using this design of mixed methodology, the researcher collected the quantitative data and the qualitative data separately during the same phase in parallel. Findings from one study did not depend on the results of the second one. They were prioritised equally and analysed independently using a survey for the quantitative data and a Q method for the qualitative data. At the interface phase, to

facilitate the combination of both data, a matrix was developed to compare and contrast findings from both studies. The merging of results was integrated in the interpretation and the discussion phase. The statistical results of the quantitative study were complemented with the findings of the qualitative study in order to develop a more holistic understanding of the CG in Lebanon by evaluating university students' CR and the role of policy-makers in promulgating standards for CG services in Lebanon. In this study, the researcher used multiple philosophical positions as described above to analyse different data and give meaning to the overall interpretation.

Research Design

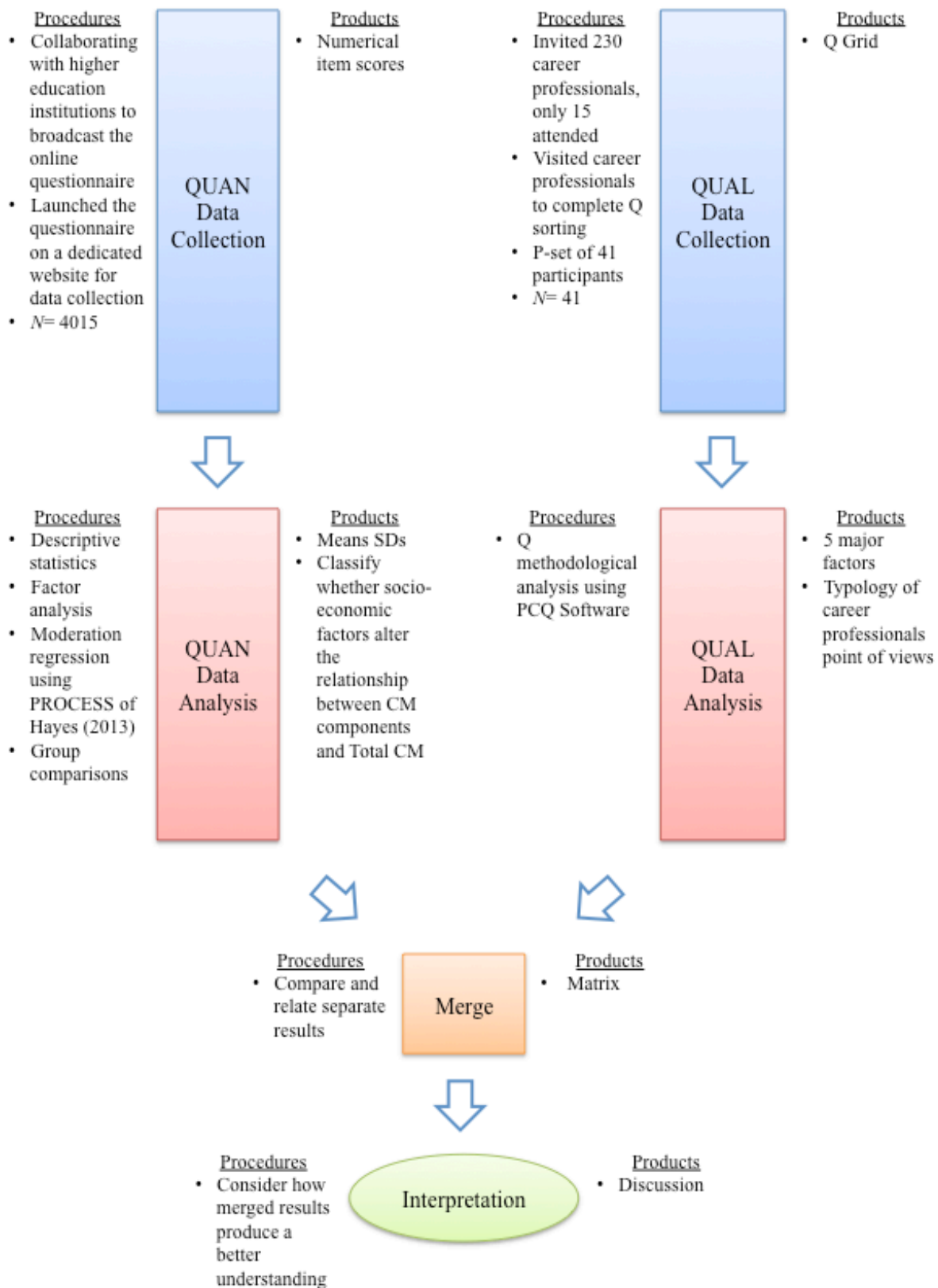


Figure 2. Research Design

Conclusion

To conclude, the use of mixed methodology across this study was found to be more efficient in addressing the research question compared to employing solely a quantitative or qualitative method. The pragmatic philosophical approach underpinning this methodology countered several issues in terms of ontology, epistemology, axiology, and by resisting the use of either the quantitative or the qualitative approach to the exclusion of the other.

Chapter 3

Quantitative Study: National Study

Overview

This quantitative study aimed to develop a theory-driven and empirically sound measure of CM. Building on the CM construct, its assumptions, and its movement from a pre-modernist to a modernist perspective (M. B. Watson, 2008), the study was inspired by the CM components from Super's theory (1983): CP, CDM, CE and WWK. To further investigate the criterion-validity of the measure, this research also sought to assess the validity of the categorisation of CM into the aforementioned four overarching components. It is assumed that individuals who actively engage in CP, CDM, CE and WWK, are more likely to have a greater CM thus a greater readiness for their career. Another aim was to provide empirical support for the moderator impact of socio-economic factors on the relationship between CM and its components.

Instrument

In the quantitative study, a questionnaire was developed and inspired from Super's theory and its evolution and from the definition of CM already stated in the Literature Review chapter. This questionnaire is called Career Readiness Measure (CRM). It is written in English and translated to Arabic and French. Two sections compose this questionnaire. The first section was an analytical questionnaire design with the following nominal measures: Career Planning (CP), Career Decision Making (CDM), Career Exploration (CE), and World of Work Knowledge (WWK). It is a 25-item inventory, which aims to assess the CM the university students from CM components and the interaction of these components with the socio-economic factors (see Appendix I). It includes statements related to each component of the CM construct reflecting the type of actions to take when individuals decide to pursue

higher education studies regardless of their socio-economic circumstances. For each statement, the participants were asked to rate on, a 4 point Likert scale, the degree to which they agreed with each statement (1= strongly disagree, 4= strongly agree). The CP dimension involved 7 statements. The CDM dimension was composed of 8 statements. The CE dimension included 4 statements. Finally the WWK dimension included 6 statements.

The second section constituted the demographic data where students were asked to report their gender, age (year of birth), region of origin, place of residency, year of graduation, university name, university type, university region, level of degree, change of major, change of major frequency, father's level of education, mother level of education, household annual income religion, and wasta (influence) (see Appendix J).

The product of these two sections attempts to provide indicators for CG professionals to help them prepare in depth one to one interviews with students and guide them in developing action plans for career decision-making.

It must be stressed that the CRM does not pretend to assess a general readiness: it is designed to assess only one aspect of the individual's readiness. The product of its two sections attempts to provide indicators for CG professionals to help them prepare in depth one-to-one interviews with students and guide them in developing action plans for career decision making. Therefore, scores must not be interpreted solely; additional qualitative data such as career counselling interviews must be combined in order to have a holistic view of the contextual elements (socio-economic, psychological, etc.).

Students with higher scores may be guided with deep career development actions and activities whereas students with lower scores may be guided with an intuitive approach for career decision. However, it must be noted that students' socio-economic factors affect largely the type of activities used for career decision making. Hence, calculating a moderation coefficient would bring further accuracy to students' scores on CRM. To do so, the readiness

of students (Y) can be predicted from an interaction between CM components (X_1) and students' socio-economic factors (X_2) using a regression model where b_n is considered as the coefficient of prediction (Waner, 2012).

The main effects plus interaction model is

$$Y' = b_0 + b_1X_1 + b_2X_2 + b_3(X_1 \times X_2).$$

The instrument was developed in three phases:

First phase: An analysis of existing questionnaires in the literature in the area of CG was conducted. Results from this analysis showed that no existing instrument was found reflecting the purpose of this study and could be used within this context. Findings on the first tool created by Crites (1978a) to evaluate the vocational maturity, showed that this measure did not embed all aspects of his desired model and failed to assess individuals' CP and CE (Super & Kidd, 1979). More robust tools such as the Career Development Inventory (CDI), despite reaching an advanced development level (Thompson et al., 1981) (1) showed inconsistent reliability, (2) was dominated by the social desirability that drives participants to pick the most acceptable answer in society rather than answers that reflect their interests, and finally (3) failed to warrant its applicability within minority populations. To elaborate on the last limitation of the CDI, Watson (2008) argued, based on his review, that available CM measures did not provide sufficient evidence to support their uses within different cultural contexts. Finally, one of the most recent tools, developed by Savickas (2005) to measure the most adapted version of CM, has been criticised for a lack of consensus among the career adaptability construct's operational definition and affiliated measures (Rottinghaus et al., 2012). Nonetheless, the available career measurements are developed within a cultural context to reflect the clients' realities. Therefore their use within another context necessitates a deconstruction of their results to reconstruct new findings in the new context (M. B. Watson, 2008). However, Watson (2008) questioned, "at what point deconstruction of a

career measure invalidates the construct that the measure supposedly assesses” (p. 520).

Three studies on CM conducted within the Lebanese settings were found in the literature. The oldest one carried by Moracco (1976) compared the vocational maturity of Arab and American high school students using the Career Maturity Inventory (CMI). However, the author, like many more in other countries, focused only on the equivalence of the measure construct and on its linguistic (M. B. Watson, 2008) while neglecting more critical constructs such as cultural relativity, cultural validity, and cultural specificity (Leong & Serafica, 2001). One other challenge that needed more consideration is related to the accommodation of age maturation between different cultural beliefs and perspectives (M. B. Watson, 2006). The second study of Theodory (1982) evaluated the CM of Lebanese students in high schools using a questionnaire developed by the researcher himself. Yet, evidence concerning psychometric issues such as construct and predictive validity were not provided, raising several concerns about the corroboration of the study’s findings and results. The most recent study conducted by Fleihan (2011) attempted to measure the CM of Lebanese grade 12 students. However, the limited nature of its sampling (W. Patton & Lokan, 2001) and its ungrounded mixed methods procedure (Creswell & Plano Clark, 2011) resulted in the inconclusiveness of its findings. Consequently, the inappropriateness of the existing measurement and the lack of systematic reviews within the Lebanese context drove the researcher to develop a new instrument to measure CM as an aspect of CR.

Second phase: Analysis from a previous informative study done in 2011 in Lebanon was used. Based on this study, additional items were formulated or existing ones adjusted. The first version of this questionnaire before piloting included 38 statements (see Appendix K).

Third phase: In the pilot study, based on the previous two phases, 672 participants responded to the study; yet, only 498 of them fully completed the questionnaire. The link to

the online questionnaire were sent to all the researcher's contact address book (around 1000 contacts) asking people who graduated from a university in Lebanon after 2006 or still studying to fill the questionnaire and broadcast it to their contacts by e-mail and social media channels, namely Whatsapp, LinkedIn, and Facebook. Data was collected online with SurveyMonkey and was analysed by the statistical software SPSS. This phase intended to examine the psychometric performance of the questionnaire items and scales in order to cull the number of items of the final questionnaire. Findings from this study guided the researcher in amending and evaluating the validity and the reliability of this questionnaire. Indeed, a factor analysis of the gathered data resulted in the elimination of 6 statements because they did not load above .30 or loaded over multiple factors. The deleted statements are the following: from CP (1) "I plan to choose different major/career options in case I couldn't pursue my first choice, from CE" (2) "I know the knowledge, skills and abilities required for the job I want to do", (3) "I know the market needs of the job I want to do", (4) "I would take initiatives and get information from materials such as books, magazines, internet, etc. to help me design my education/career plan", from WWK (5) "Career related activities such as job fairs give me information about my potential future job", from CDM (6) "If I hesitate between two majors/careers, I choose the one that needs less effort". It must be noted that only one statement, which is "I choose a major/career based on my network connections who promised to place me in a secure job in spite of my interests and abilities" was kept even though it did not load above .30. In fact, based on personal observation and professional experience, the researcher believed that *wasta* (influence) variable has a great impact on individuals' CM in Lebanon. Some statements did not load on the same intended factor from the design phase. Afterwards, the 32-item questionnaire (see Appendix L) resulting from the previous phase was used to assess the effect of socio-economic factors on university students' CR. Factor analysis results lead to the elimination of 7 statements for the same

aforementioned reason in the pilot factor analysis. The deleted statements are the following: from CP (1) “While planning my education/career I take into consideration information I get from materials such as books, magazines, internet etc.”, from CDM (5) “I know the work conditions of the job I want to pursue”, (6) “I know the different career paths that lead to the job I want to do”, (7) “I know the educational requirements of the job I want to do”, from CE (2) “It is easy to change from engineering to business”, and from WWK (3) “It is essential to make people like you when you start a new job”, (4) “It is essential to show that you are your own boss when you start a new job”. All factors taken into the final version of the questionnaire loaded on the intended factors from the pilot study.

Procedure

The researcher met with the Director General of Higher Education at the Ministry of Education and Higher Education to present the scope of the study and partnered with the latter which allowed the researcher to contact the higher education institutions in Lebanon (see Appendix M).

The final developed questionnaire was launched on a dedicated website www.careerguidancelebanon.com through a private provider. The researcher gathered a list of all private universities, got in touch with their student affairs department, presented the study, and asked them to broadcast the online questionnaire by e-mail to all their students (a template e-mail was provided by the researcher). Some showed great interest in being part of this national study, while others did not reply despite several follow-ups. As a result, 7 private universities (USJ, NDU, LAU, BAU, AUL, LIU, UOB) immediately broadcasted the questionnaire which amounts to an approximate total number of 62,000 (slightly higher than 50% of all private university students in Lebanon) university students that were invited to fill in the questionnaire. In addition, one private university (UA) distributed 150 hard copies of the questionnaire in its campus. As for the only public university, broadcasting through e-

mails was impossible due to the fact that the sole communication channel with students is through physical bulletin boards (see Appendix N). Therefore, the researcher solicited and got the written approval of the President of the university (see Appendix O) in order to collect data on the different campuses. Hence, 6,000 copies of the survey were printed out and distributed in nearly all the faculties. The data of the collected filled questionnaires was manually fed on SurveyMonkey where all questionnaire data is consolidated. Finally, to reach the university students enrolled in other universities in Lebanon, the researcher used the online questionnaire link and broadcasted it through a wide range of social media channels such as Facebook, WhatsApp, LinkedIn. In addition, the researcher contacted one of the top TV channels (Mtv) in Lebanon and requested to be hosted on one of their programmes that is dedicated to young people. The researcher was hosted on “@Mtv” on Dec 16th 2013.

The online questionnaire was open to participants for 6 months from October 2013 until March 2014.

Participants

The researcher made sure to have a representative sample of the Lebanese students' population in order to generalise results over the whole population. The official statistics of the Lebanese MEHE (see Appendix P) reported that 191,788 students were enrolled in universities in Lebanon in the academic year 2013: 120,348 (62.75%) in 40 private universities and 71,440 (37.25%) in the public one.

The following section will report some demographic characteristics of the participants. A total of 4,015 responses (only the full completed questionnaires) were used for the analysis. Two thousand five hundred and fifty two participants were women (63.6%) and 1,463 were men (36.4%). Participants included 2490 (62.02%) students from 23 private universities from which 2,151 (86.39%) are enrolled in 11 private universities that have more than 4,800 students (LIU, BAU, USJ, AUB, AUCE, USEK, NDU, LAU, UOB, AUST and

AUL) and 1,525 (37.98%) students from the public Lebanese university. The majority of participants were aged between 18 and 27 (96.2%) lived in the capital Beirut (37.3%) and the Mount Lebanon region (33.9%), and were expected to graduate in 2014 (26%) or 2015 (25.1%). In addition, 53.7% of the students were studying in universities located in the capital Beirut, and were enrolled in bachelor studies (78.4%). The majority of students did not change their major during their life (77.5%). For those who changed their majors (22.5%), 81.7% of them only changed their major once.

Data Analysis

Factor analysis. A principal component analysis (PCA) was conducted on the 32 items with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .828, and all KMO values for individual were $> .669$, which is well above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity $\chi^2 (496) = 16497.223, p < .001$, indicated that correlations between items were significantly large for PCA.

To obtain eigenvalues for each component in the data, an initial analysis was run and indicated that 8 components had eigenvalues over Kaiser's criterion of 1 and in combination explained 44.478% of the variance. The scree plot was slightly ambiguous and showed inflexions that would justify retaining both components 2 and 4. After the second inflexion, factors were very close and each of them only explained 3% of the variance on average. Based on the latter, the scree plot suggested that either four or five factors should be extracted.

Since the CM subscales are claimed to be theoretically independent from each other, orthogonal rotation was chosen as the rotation method. The factors were extracted using varimax and the results of the factor analysis were examined. Only items loading above .30

were examined. The standard deviation of each item was reviewed and all items had a *SD* above 0.5, which means that all items discriminated well among individuals (DeVellis, 1991). The component matrix and the correlation matrix were used as a basis for the interpretation. The first matrix was consulted in order to evaluate each variable contribution to a factor, and the second one was used to cross-check if the same factors emerged.

The four-factor solution and the five-factor solution were compared and the chosen solution was selected based on the researcher's judgment. The five-factor solution appeared to be non-parsimonious and led to a greater number of factors than expected. One of these factors was found to be uninterpretable and irrelevant to the CG theories. It involved 4 variables: (1) I know the different career paths that lead to the job I want to do; (2) I know the work conditions of the job I want to pursue; (3) I know the educational requirements of the job I want to do; and (4) I go to the library to get educational and occupational information. The first three variables reflect actions taken to expand the student's knowledge about the world of work and the last variable is considered an activity done by the student to further explore his career choice. Interpreting the combination of these factors was not supported by findings and theories from the literature. Given that the researcher adopted a deductive logic while conducting this study, she decided that this solution was not appropriate to analyse findings and to provide further insights to answer the research question. However, the four-factor provided a clearly identifiable factor structure, hence reflecting Super's CM theory (1953) while integrating recent findings concerning the adaptability of the used instrument to the targeted population. The items that cluster on the same components suggest that construct 1 represents CP, construct 2 CDM, construct 3 CE, and construct 4 WWK.

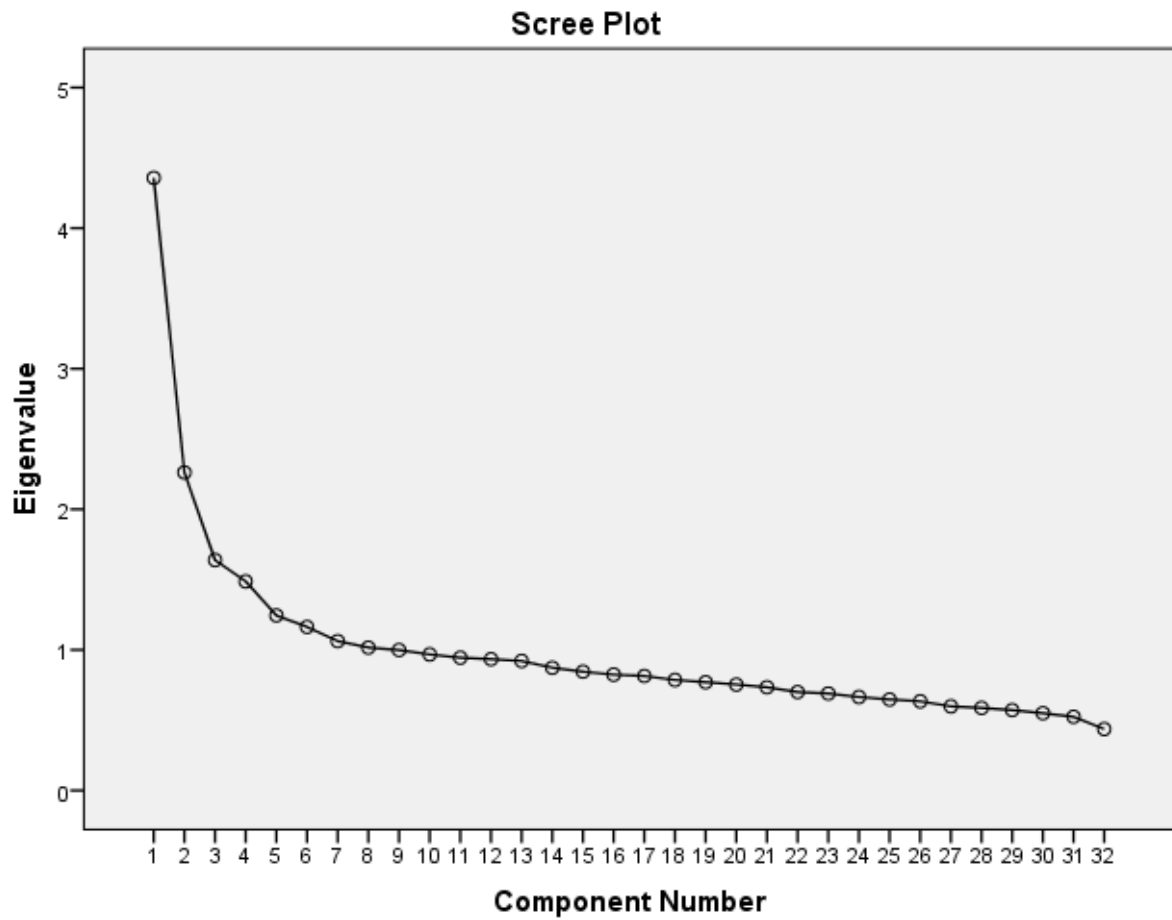


Figure 3. Factor analysis with an extraction based on Eigenvalues. Only Eigenvalues with a value > 1 are extracted. Four to five components would be extracted.

Table 1

Factor Loadings for Exploratory Factor Analysis With Varimax Rotation of CM Scales

	Career Planning	Career Decision Making	Career Exploration	World of Work Knowledge
4. I plan to discuss my education/career plans with a career advisor	.65			
6. While planning my education/career I take into consideration my career advisor suggestions/advice	.61			
3. I plan to discuss my education/career plans with my teacher(s)	.57			
13. I plan to take a career assessment to validate that I possess the required abilities to pursue my chosen major/career	.56			
8. While planning my education/career I take into consideration field experts' suggestions/advice	.50			
15. I go to the library to get educational and occupational information	.48			
10. While planning my education/career I take into consideration current market trends	.39			
11. While planning my education/career I take into consideration information I get from materials such as books, magazines, Internet etc.	.39	.33		
19. I know the different career paths that lead to the job I want to do	.37	.33		
37. I decide which career fits my professional interests		.66		
31. I decide what actions to take if I struggle with my current major/career		.57		
14. In a job interview, it is fundamental to explore if the job matches your expectations		.56		
29. I choose which major/career to pursue from a list of possible majors/careers that match my interests		.52		
30. I decide what my career goals are for the next 4 years		.47		
21. I know the educational requirements of the job I want to do	.37	.44		
33. I want to pursue my favourite major/career even though my career advisor suggested a different one		.39		
32. I agree to change my major/career in case I did not enjoy it		.39		
17. I know the work conditions of the job I want to pursue	.33	.36		
5. I consider doing an internship/job to discover my educational/career fields of interests		.33		
9. While planning my education/career I take into consideration my friends' suggestions/advice			.65	
2. I plan to discuss my education/career plans with my friend(s)			.65	
1. I plan to discuss my education/career plans with my parents/relatives			.65	
7. While planning my education/career I take into consideration my parents/relatives suggestions/advice			.65	
22. It is easy to change from engineering to business				
26. I pick a major/career that will bring me a high income despite of my interests in it				.61
35. I choose a major/career based on my PR network connections who promised to place me in a secure job in spite of my interests and abilities				.54
38. In a job interview, it is fundamental to decide about the salary package				.41
27. In a job interview, it is fundamental to tell the interviewer that you will do any work as long as the job suits you				.35
24. It is essential to show that you are your own boss when you start a new job	.32			.35
34. If I have the highest grades among students, I will choose the most difficult and demanding major/career				.35
28. While moving through their life stages individuals expect their life to get easier				.32
23. It is essential to make people like you when you start a new job				

Note. Factor loadings > .30 are in boldface. Component 1 = CP; 2 = CDM; 3 = CE; 4 = WWK

Validity. In order to examine the validity of the questionnaire, the sample was split randomly into two subsamples and findings from both samples were cross-validated (DeVellis, 1991). The first sample S1 size was of 2,059 individuals and the second one S2 was of 1,956.

Construct validity. DeVellis (1991) argued that simple factor analysis would be used to confirm the factor structure of the first subsample on the second one. Therefore, S2 was subjected to an identical factor analysis to S1 (Hashemi, 1981). Apart from one dimension the WWK, that was missing one item in the first group, the structures of the subscales were replicated identically by S2 to S1. Looking at items' loading on different factors from both samples, the factor structure was fairly constant, suggesting that the number of constructs extracted from the factor analysis and their structure were not obtained by chance and the derived scales are relatively stable (DeVellis, 1991).

Convergent validity. The convergent validity was assessed through a second-order factor analysis of a higher order of constructs. In fact, items from the same factor were added to give a final score of the factor itself. The sum of factors' total should be interpretable as an indicator of overall CM. An initial factoring using a varimax rotation was used of the S1 total factors on the 25 items and revealed the extraction of one factor with Eigenvalue greater than 1, explaining respectively 39.834 of variance. The component matrix showed that all factors loaded highly $> .45$ on the CM factor. As a result the developed questionnaire is composed of 4 dimensions that measure one construct which is the CM.

Table 2

Total Variance of Factor Loadings for Exploratory Factor Analysis of CM Higher Order Scales

CM Measure	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
CP	1.59	39.83	39.83	1.59	39.83	39.83
CDM	1.00	24.90	64.73			
CE	.77	19.32	84.05			
WWK	.64	15.95	100.00			

Note. Each component subscales were summed and their total is considered as higher scale of the CRM Questionnaire. CM = Career Maturity; CP = Career Planning, CDM= Career Decision Making; CE = Career Exploration; WWK= World of Work Knowledge

Criterion related validity. A stepwise multiple regression analysis was carried out using CM as the dependent variable and CP, CDM, CE, and WWK, as the predictor variables. Each one of the four components of CM was modelled separately carrying out the analysis in a series of steps in order to evaluate the impact of introducing each new component. Components that demonstrated significant at the level of $p < .05$ were carried forward to the next step while the non-significant components were removed.

Descriptive statistics and correlations between the variables entered into the model are presented in Table 4 below, and the results of the regression analysis are shown in Table 5. Table 4 shows that all predictor variables had a significant $p < .05$ zero-order correlation with CM. CP and CDM had a strong relationship with CM, whereas CE had a moderate correlation with CM, and WWK had a relatively weak correlation with the same concept. In addition, investigating correlations between different predictor variables were weak. Table 5 showed whether all predictor variables were necessary to predict CM. A step 1 of the analysis CP factor ($M = 20.80$, $SD = 3.02$) entered into the regression equation and was significantly related to CM, $F(4013, 4014) = 4043.764$, $p < .001$. The multiple correlation coefficient was $R = .708$, indicating approximately 50.2% of the variance of the students' CM could be

accounted for by CP. CDM ($M = 24.85$, $SD = 2.99$) was entered into the equation at step 2 of the analysis $t = 67.05$, $p < .001$. It was significantly related to CM, $F(4012, 4014) = 6534.36$, $p < .001$. The multiple correlation coefficient of the second model was $R = .875$, indicating approximately 76.5% of the variance of the students' CM could be accounted for by CP and CDM. WWK ($M = 15.59$, $SD = 2.47$) was entered at the equation at step 3 of the analysis $t = 27.09$, $p < .001$. WWK appeared to be significantly predicting CM of university students, $F(4011, 4014) = 11027.36$, $p < .001$. The third model explained 89.2% of the variance of the CM concept indicated by the multiple correlation coefficient of the third model $R = .944$. The CE factor ($M = 10.89$, $SD = 2.05$) was entered at the last equation at step 4 of the analysis $t = 39.15$, $p < .001$. This factor seemed to be significantly predicting CM concept $F(4010, 4014) = 1.278E+17$, $p < .001$. The multiple correlation of the fourth model 1 explained 100% of the variance of the CM concept could be accounted by the four components. The latter indicated that none of the predictor variables were removed from the regression. Thus, the regression equation for predicting university students' CM in Lebanese settings was:

$$\text{Predicted CM} = \text{CP Score} + \text{CDM Score} + \text{WWK Score} + \text{CE Score} + 5.149E-013$$

Table 3

Summary of CP, CDM, CE, WWK, and CM Characteristics

CM Measure	<i>n</i>	<i>M</i>	<i>SEM</i>	<i>Mdn</i>	<i>Mode</i>	<i>SD</i>	<i>Skewness</i>	<i>SE Skewness</i>	<i>Kurtosis</i>	<i>SE Kurtosis</i>	<i>Min</i>	<i>Max</i>
Total CP	4015	20.81	.05	21	21	3.02	-.34	.04	.64	.08	7	28
Total CDM	4015	24.85	.05	25	24	2.99	-.36	.04	1.12	.08	8	32
Total CE	4015	10.89	.03	11	12	2.05	-.37	.04	.59	.08	4	16
Total WWK	4015	15.59	.04	16	16	2.47	-.24	.04	.55	.08	6	24
Total CM	4015	72.14	.09	72	73	5.86	-.23	.04	.84	.08	43	92

Note. CM = Career Maturity; CP = Career Planning, CDM= Career Decision Making; CE = Carer Exploration; WWK= World of Work Knowledge

Table 4

Summary of Pearson Correlations for the CP, CDM, CE, and WWK as a Component of CM

CM Measure	1	2	3	4	5
Total CP	—	0.291*	0.282*	-.13*	0.708*
Total CDM	0.291*	—	0.118*	-.01	0.697*
Total CE	0.282*	0.118*	—	-.21*	0.466*
Total WWK	-.13*	-.01	-.21*	—	0.279*
Total CM	0.708*	0.697*	0.466*	0.279*	—

Note. For all correlations, higher scores are indicative of high multicollinearity meaning that the two predictors in question are measuring the same thing. A high multicollinearity is considered when Pearson-correlations is $> .9$. CM = Career Maturity; CP = Career Planning, CDM= Career Decision Making; CE = Carer Exploration; WWK= World of Work Knowledge. * $p < .01$

Table 5

Linear Regression Using Stepwise Method Predicting CM From CP, CDM, CE, WWK

Predictor	<i>b</i>	<i>SE b</i>	β
Step 1	43.50	0.46	
Total CP	1.38	0.02	0.708***
Step 2	23.66	0.43	
Total CP	1.07	0.02	0.552***
Total CDM	1.05	0.02	0.536***
Step 3	8.95	0.36	
Total CP	1.17	0.01	0.601***
Total CDM	1.03	0.01	0.525***
Total WWK	0.85	0.01	0.359***
Step 4	0.00	0.00	
Total CP	1.00	0.00	0.515***
Total CDM	1.00	0.00	0.51***
Total WWK	1.00	0.00	0.421***
Total CE	1.00	0.00	0.349***

Note. CM = Career Maturity; CP = Career Planning, CDM= Career Decision Making; CE = Carer Exploration; WWK= World of Work Knowledge. $p < .01$. * $p < .05$. *** $p < .001$

Reliability. First coefficient Cronbach's α for each variable was calculated on the total of the questionnaire items loading above .30 on each component. Then, the assessment

of standard deviation revealed that all variables did discriminate well among participants ($SD < 0.50$). Reliability of each components' subscales was computed in tandem showing that CP, CDM, and CE subscales of the CRM all had reasonable reliabilities, all Cronbach's α are around .70. However, the WWK subscale had low reliability, Cronbach's $\alpha = .39$. An iterative process did not enhance the reliability of this component. Finally, the overall Cronbach's α showed a relatively high reliability $\alpha = .70$.

Normality Test. To test the normality of the chosen population on the CM a K-S test was conducted. The test's results showed that the percentage on the students' CM, $D(2015) = .051, p < .001$, was significantly non-normal. However, the sample size of this study was relatively large suggesting that this test will tend to be significant even the CM scores were slightly different from a normal distribution. Thus, the interpretation of Q-Q plots and the values of skewness and kurtosis seem crucial. The value of skewness was lightly negative indicating a slight pile-up on the right and the kurtosis value was slightly positive indicating a slight heavy-tailed distribution. In order to show how likely these value are to occur, z-scores were calculated and their absolute value were compared to a criterion value equivalent to 2.58. The latter was increased due to the sample size (Field, 2009). A z-score of skew or kurtosis higher than this criterion indicates a significant test of skew and kurtosis. The z-score of skewness was $-.232/.039 = -5.95$ and the kurtosis z-score was $.843/.077 = 10.95$. Therefore, there is a significant skew and kurtosis. Even though these calculations reveal a fairly normal distribution, relying solely on them does not sound largely satisfactory. Therefore, assessing the shape of the distribution visually and the Q-Q plot appeared evident. The observation of the histogram (see *Figure 4*) confirmed the statistical information discussed earlier showing a fairly distribution with a slight negative skew and a distribution centred on scores of about 74%. The Q-Q plot (see *Figure 5*) showed that only at lower

values of observed CM does the line sag above the diagonal indicating a slight deviation from normality. Yet, it adjusted and showed that the observed values of CM fall consistently and exactly along the straight line indicating that these values are similar to what is expected from a normal distribution. This indicated a fairly normal distribution with as slight deviation of skewness and kurtosis.

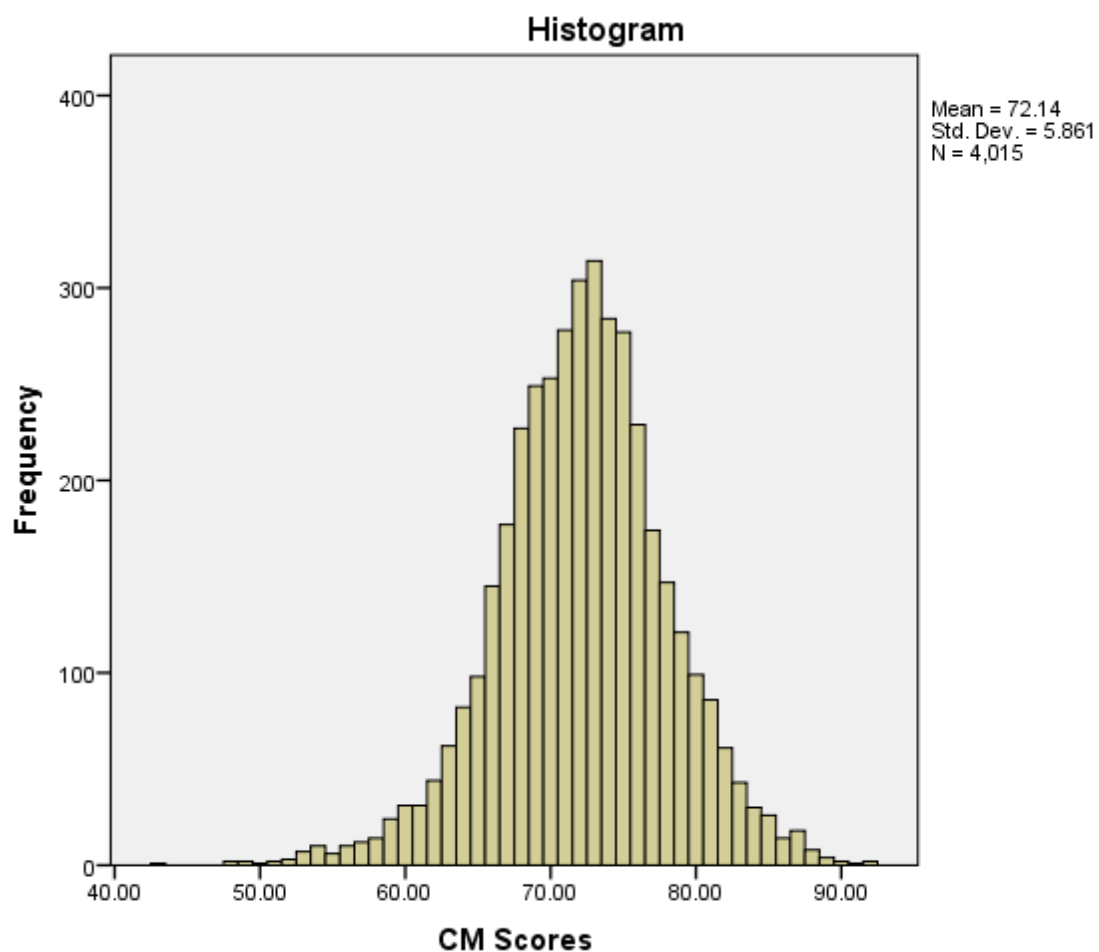


Figure 4. Distributions of CM scores for university students in Lebanon

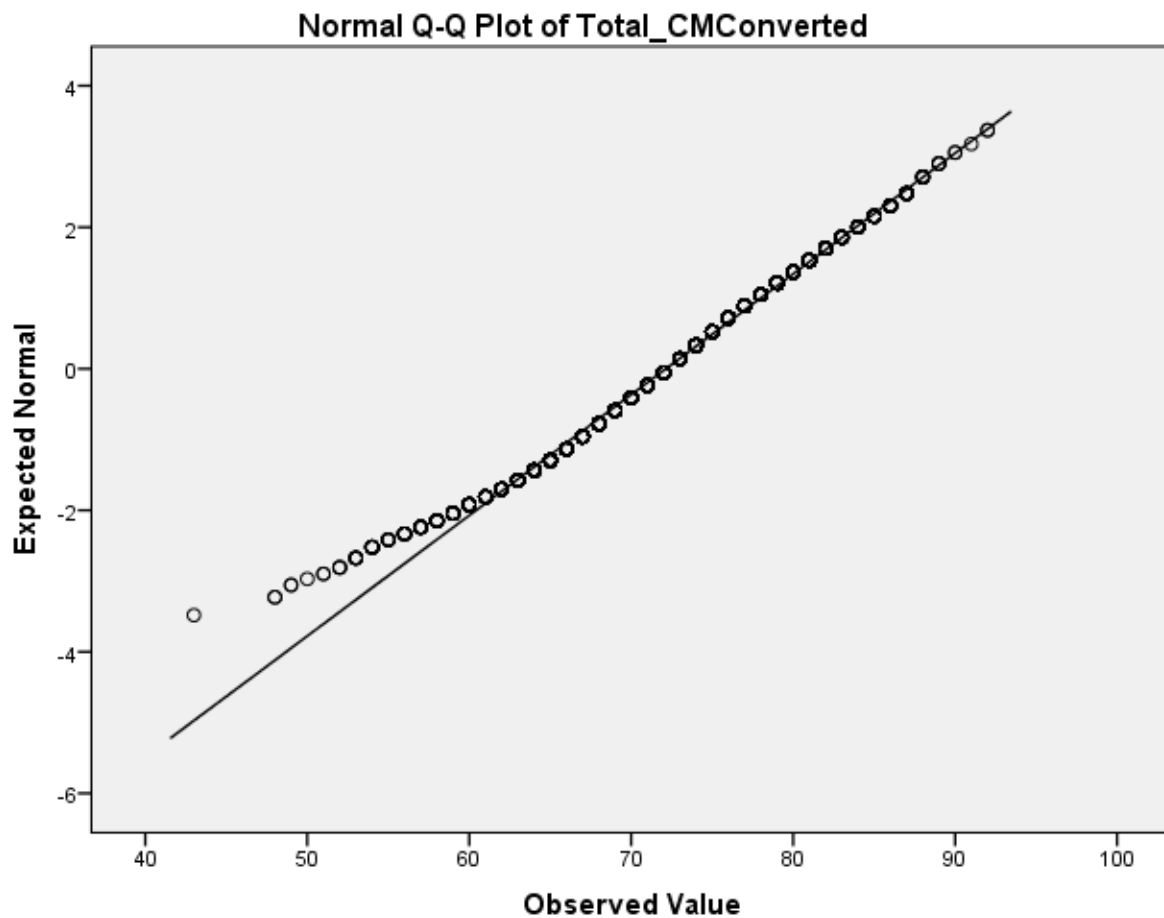


Figure 5. Q-Q plots of the CM scores for university students in Lebanon

Moderations. A multiple regression model was tested to investigate whether the association between CM components (CP, CE, CDM, and WWK) with the concept of CM depends on the socio-economic factors, thus affecting the prediction of individual's readiness. It must be noted that items from the same scale were added to give a final score of the component. The score of CM was calculated by adding the total score of each component. The socio-economic factors are the following: gender, age (year of birth), region of origin, place of residency, year of graduation, university name, university type, university region, level of degree, change of major, change of major frequency, father's level of education, mother's level of education, household annual income, religion, and wasta (influence). After centring CM components and all socio-economic factors and computing the interaction between each CM component-by-each socio-economic factor interaction term (Aiken &

West, 1991), the two predictors and the interaction were entered into a simultaneous regression model. For further clarifications, a moderator variable is defined as a variable, which “alters the strength of the causal relationship” (Kenny, 2013). To evaluate the moderation effect, the researcher used a dialogue developed for SPSS by (Hays, 2013) called PROCESS. This dialogue assisted the researcher in estimating the direct and indirect effect in the adopted moderation model in this study while providing simple slopes and regions of significance in order to investigate interactions.

Results by socio-economic factor revealed the following:

Gender. For gender, the studied sample ($N = 4015$) had a mean score of $M = 1.64$, $SD = 0.48$ shown in Table 6. The mean and standard deviation of the mean of each category's scores on CM and its components are summarised in Table 7.

Table 6

Mean and Standard Deviation of Mean of Gender

	<i>N</i>	<i>M</i>	<i>SD</i>
Gender	4015	1.64	.48

Table 7

Mean and Standard Deviation of Mean of Gender subscales on CP, CDM, CE, WWK, and CM

CM Measure	Male			Female		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1463	20.69	2.99	2552	20.88	3.03
Total CDM	1463	25.03	2.86	2552	24.75	3.05
Total CE	1463	10.93	2.05	2552	10.87	2.04
Total WWK	1463	15.41	2.50	2552	15.70	2.45
Total CM	1463	72.06	5.68	2552	72.19	5.96

CP

The overall effect of gender on CM, when CP is equal to zero, is $b = -0.12$, $SE = 0.14$, $p > .05$. The overall effect of CP on CM, when gender is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and gender is equal to $R^2 = .7078$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CP and CM were tested and revealed positive for all gender values; yet, the causal effect of CP on CM was slightly more amplified or strengthened for female students, $b = 1.4$, $SE = 0.027$, $p < .001$, than for male students, $b = 1.34$, $SE = 0.036$, $p < .001$. Thus, hypothesis 1.1 was not confirmed: “The relationship between CP and CM is moderated by students’ gender”.

CDM

The overall effect of gender on CM, when CDM is equal to zero, is $b = 0.504$, $SE = 0.1377$, $p < .001$. The overall effect of CDM on CM, when gender is equal to zero, is $b = 1.37$, $SE = 0.047$, $p < .001$. The interaction between CDM and Gender is equal to $R^2 = .6987$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0003$. Simple slopes for the association between CDM and CM were tested and revealed positive for all gender values; yet, the causal effect of CDM on CM was slightly more amplified or strengthened for female students, $b = 1.4$, $SE = 0.027$, $p < .001$, than for male students, $b = 1.32$, $SE = 0.038$, $p < .001$. To illustrate, the starting CM scores for males were higher than for females, but, at higher levels of CDM, the predicted CM for females were slightly greater than males. Thus, the hypothesis 2.1 is not confirmed: “The relationship between CDM and CM is moderated by students’ gender”.

CE

The overall effect of gender on CM, when CE is equal to zero, is $b = 0.22$, $SE = 0.17$, $p > .05$. The overall effect of CE on CM, when gender is equal to zero, is $b = 1.34$, $SE = 0.04$,

$p < .001$. The interaction between CE and Gender is equal to $R^2 = .4666$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CE and CM were tested and revealed positive for all gender values; yet, the causal effect of CE on CM was relatively the same for female students, $b = 1.337$, $SE = 0.05$, $p < .001$, and for male students, $b = 1.335$, $SE = 0.066$, $p < .001$. In general, the difference in mean on CM between female and male students remained the same across all values of CE. Thus, the hypothesis 3.1 is not confirmed: “The relationship between CE and CM is moderated by students’ gender”.

WWK

The overall effect of gender on CM, when WWK is equal to zero, is $b = -0.058$, $SE = 0.19$, $p > .05$. The overall effect of WWK on CM, when gender is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and Gender is equal to $R^2 = .2789$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between WWK and CM were tested and revealed positive for all gender values; yet, the causal effect of WWK on CM was slightly more amplified or strengthened for female students, $b = 0.68$, $SE = 0.046$, $p < .001$, than for male students, $b = 0.63$, $SE = 0.059$, $p < .001$. To illustrate, the starting CM scores for males were higher than for females, but, at higher levels of WWK, the predicted CM for females were slightly greater than males. Thus, the hypothesis 4.1 is not confirmed: “The relationship between WWK and CM is moderated by students’ gender”.

Age (year of birth). On the age (year of birth), the studied sample ($N = 4015$) had a mean score of $M = 21.92$, $SD = 3.31$ as shown in Table 8. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 9.

Table 8

Mean and Standard Deviation of Mean of Age

	<i>N</i>	<i>M</i>	<i>SD</i>
Age (year of birth)	4015	21.92	3.31

Table 9

Mean and Standard Deviation of Mean of Age Subscales on CP, CDM, CE, WWK, and CM

CM Measure	18			19			20		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	72	21.15	2.83	633	21.18	2.86	666	21.12	2.87
Total CDM	72	24.79	2.98	633	24.90	2.76	666	24.78	3.01
Total CE	72	11.13	2.30	633	11.03	1.83	666	10.95	1.96
Total WWK	72	15.78	2.36	633	15.56	2.38	666	15.50	2.50
Total CM	72	72.85	6.21	633	72.67	5.52	666	72.35	6.05

CM Measure	21			22			23		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	758	20.64	2.99	680	20.48	3.11	440	20.93	3.09
Total CDM	758	24.69	3.12	680	24.53	2.91	440	24.99	3.05
Total CE	758	10.97	1.93	680	10.99	2.05	440	10.85	2.11
Total WWK	758	15.58	2.40	680	15.64	2.31	440	15.51	2.55
Total CM	758	71.88	5.93	680	71.63	5.97	440	72.28	5.68

CM Measure	24			25			26		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	278	20.73	3.14	163	20.83	3.04	102	20.44	3.33
Total CDM	278	25.37	3.24	163	24.91	2.92	102	25.45	2.62
Total CE	278	10.87	2.28	163	10.60	2.27	102	10.33	2.47
Total WWK	278	15.67	2.64	163	15.60	2.68	102	15.51	2.72
Total CM	278	72.64	5.99	163	71.94	5.94	102	71.74	5.58

CM Measure	27			28			29		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	70	20.04	3.15	32	21.13	3.51	21	19.14	2.71
Total CDM	70	25.33	2.62	32	25.69	2.49	21	25.10	3.27
Total CE	70	10.54	2.08	32	10.03	2.80	21	10.38	2.22
Total WWK	70	15.64	2.56	32	16.06	2.93	21	15.43	2.18
Total CM	70	71.56	5.60	32	72.91	5.24	21	70.05	6.89

CM Measure	30			31			32		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	21	19.67	3.26	10	20.90	1.97	10	20.80	2.53
Total CDM	21	24.71	3.20	10	25.30	2.63	10	25.80	3.08
Total CE	21	9.86	2.41	10	10.40	1.71	10	9.70	1.70
Total WWK	21	15.43	3.03	10	15.60	2.32	10	14.80	1.75
Total CM	21	69.67	5.87	10	72.20	4.16	10	71.10	3.81

CM Measure	33			34			35		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	10	19.90	3.00	11	21.55	3.33	8	19.63	1.30
Total CDM	10	27.00	2.49	11	25.27	3.04	8	24.38	2.62
Total CE	10	9.80	2.66	11	10.36	2.34	8	10.13	1.36
Total WWK	10	17.70	2.45	11	15.91	3.99	8	16.75	2.12
Total CM	10	74.40	6.60	11	73.09	5.13	8	70.88	3.91

CM Measure	36			37			39		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	23.00	.	4	22.50	2.89	1	17.00	.
Total CDM	1	28.00	.	4	27.50	1.73	1	24.00	.
Total CE	1	15.00	.	4	10.00	2.71	1	9.00	.
Total WWK	1	13.00	.	4	13.50	1.91	1	13.00	.
Total CM	1	79.00	.	4	73.50	3.11	1	63.00	.

CM Measure	40			41			42		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	20.00	.	6	20.50	2.95	1	24.00	.
Total CDM	1	22.00	.	6	25.17	2.64	1	25.00	.
Total CE	1	10.00	.	6	11.17	0.98	1	11.00	.
Total WWK	1	17.00	.	6	18.83	1.83	1	18.00	.
Total CM	1	69.00	.	6	75.67	4.80	1	78.00	.

CM Measure	43			44			45		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	19.00	.	3	20.67	.58	1	21.00	.
Total CDM	1	23.00	.	3	25.67	2.08	1	24.00	.
Total CE	1	13.00	.	3	9.00	1.73	1	10.00	.
Total WWK	1	16.00	.	3	16.67	2.52	1	19.00	.
Total CM	1	71.00	.	3	72.00	3.00	1	74.00	.

CM Measure	46			47			49		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	21.00	.	3	23.33	2.08	1	21.00	.
Total CDM	1	28.00	.	3	25.33	3.06	1	21.00	.
Total CE	1	8.00	.	3	12.00	.00	1	11.00	.
Total WWK	1	17.00	.	3	16.00	1.00	1	17.00	.
Total CM	1	74.00	.	3	76.67	2.89	1	70.00	.

CM Measure	50			53			54		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	2	15.50	6.36	1	24.00	.	1	22.00	.
Total CDM	2	17.50	9.19	1	26.00	.	1	24.00	.
Total CE	2	8.50	2.12	1	10.00	.	1	12.00	.
Total WWK	2	20.50	4.95	1	17.00	.	1	16.00	.
Total CM	2	62.00	12.73	1	77.00	.	1	74.00	.

CM Measure	59			76		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	14.00	.	1	20.00	.
Total CDM	1	16.00	.	1	25.00	.
Total CE	1	8.00	.	1	9.00	.
Total WWK	1	18.00	.	1	18.00	.
Total CM	1	56.00	.	1	72.00	.

CP

The overall effect of age (year of birth) on CM when CP is equal to zero, is $b = -0.023$, $SE = 0.02$, $p > .05$. The overall effect of CP on CM when age (year of birth) is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and age (year of birth) is equal to $R^2 = .7086$, and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CP and CM were tested and revealed positive for the majority of age (year of birth) values; yet, the causal effect of CP on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on age (year of birth) (-3.3050), $b = 1.36$, $SE = 0.03$, $p < .001$ than for students who are one standard deviation above the mean (3.3050), $b = 1.4$, $SE = 0.031$, p

$< .001$. Thus, the hypothesis 1.2 is not confirmed “The relationship between CP and CM is moderated by students’ age”.

CDM

The overall effect of age (year of birth) on CM, when CDM is equal to zero, is $b = 0.077$, $SE = 0.02$, $p < .001$. The overall effect of CDM on CM, when age (year of birth) is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and students’ age (year of birth) is equal to $R^2 = .6987$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CDM and CM were tested and revealed positive for all age (year of birth) values; yet, the causal effect of CDM on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on age (year of birth) (-3.3050), $b = 1.35$, $SE = 0.029$, $p < .001$, than for students who are one standard deviation above the mean (3.3050), $b = 1.4$, $SE = 0.03$, $p < .001$. Thus, the hypothesis 2.2 is not confirmed “The relationship between CDM and CM is moderated by students’ age”.

CE

The overall effect of age (year of birth) on CM, when CE is equal to zero, is $b = -0.013$, $SE = 0.026$, $p > .05$. The overall effect of CE on CM, when age (year of birth) is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and students’ age (year of birth) is equal to $R^2 = .4671$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0006$. Simple slopes for the association between CE and CM were tested and revealed positive for the majority of age (year of birth) values; yet, the causal effect of CE on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on age (year of birth) (-3.3050), $b = 1.28$, $SE = 0.055$, $p < .001$, than for students who are one standard deviation below the mean (3.3050), $b = 1.42$,

$SE = 0.06, p < .001$. Thus, the hypothesis 3.2 is confirmed “The relationship between CE and CM is moderated by students’ age”.

WWK

The overall effect of age (year of birth) on CM, when WWK is equal to zero, is $b = -0.03, SE = 0.028, p > .05$. The overall effect of WWK on CM, when age (year of birth) is equal to zero, is $b = 0.67, SE = 0.036, p < .001$. The interaction between WWK and students’ age (year of birth) is equal to $R^2 = .2884$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0041$. Simple slopes for the association between WWK and CM were tested and revealed positive for the majority of age (year of birth) values except of five groups of students who had an age below the age mean; yet, the causal effect of CE on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on age (year of birth) (-3.3050), $b = 0.82, SE = 0.051, p < .001$, than for students who are one standard deviation below the mean (-3.3050), $b = 0.52, SE = 0.048, p < .001$, than for students who are one standard deviation above the mean (3.3050), $b = 0.82, SE = 0.051, p < .001$. Thus, the hypothesis 4.2 is confirmed “The relationship between WWK and CM is moderated by students’ age”.

Region of origin. On the region of origin, the studied sample ($N = 4015$) had a mean score of $M = 2.94, SD = 1.47$ as shown in Table 10. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 11.

Table 10

Mean and Standard Deviation of Mean of Region of Origin

	<i>N</i>	<i>M</i>	<i>SD</i>
Region of Origin	4015	2.94	1.47

Table 11

Mean and Standard Deviation of Mean of Region of Origin Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Mount Lebanon			Beirut			Bekaa		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1005	20.60	2.92	587	20.51	3.24	769	21.24	3.00
Total CDM	1005	24.98	2.99	587	24.80	3.21	769	24.53	2.90
Total CE	1005	10.73	2.05	587	11.03	2.07	769	10.89	2.03
Total WWK	1005	15.61	2.49	587	15.85	2.36	769	15.21	2.51
Total CM	1005	71.92	5.75	587	72.19	6.65	769	71.87	5.60

CM Measure	South			North			My father is not Lebanese		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1107	21.06	2.92	379	20.46	2.94	168	20.26	3.26
Total CDM	1107	24.89	2.90	379	24.93	2.95	168	25.32	3.10
Total CE	1107	10.96	2.03	379	10.91	2.05	168	10.90	2.07
Total WWK	1107	15.53	2.45	379	15.93	2.38	168	15.96	2.65
Total CM	1107	72.44	5.63	379	72.23	6.06	168	72.43	5.74

CP

The overall effect of region of origin on CM, when CP is equal to zero, is $b = 0.052$, $SE = 0.044$, $p > .05$. The overall effect of CP on CM, when region of origin is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and students' region of origin is equal to $R^2 = .7089$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0005$. Simple slopes for the association between CP and CM were tested and revealed positive for all region of origin values; yet, the causal effect of CP on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on region of origin and especially who are originally from the Beirut region (-1.4747), $b = 1.42$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and especially who have a non-Lebanese father (1.4741), $b = 1.33$, $SE = 0.031$, $p < .001$. Thus,

the hypothesis 1.3 is not confirmed: “The relationship between CP and CM is moderated by students’ region of origin”.

CDM

The overall effect of region of origin on CM, when CDM is equal to zero, is $b = 0.097$, $SE = 0.045$, $p < .05$. The overall effect of CDM on CM, when region of origin is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and students’ region of origin is equal to $R^2 = .6978$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CDM and CM were tested and revealed positive for all region of origin values; yet, the causal effect of CDM on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on region of origin and especially who are originally from the Beirut region, (-1.4747) , $b = 1.4$, $SE = 0.03$, $p < .001$, than for students who are one standard deviation above the mean and especially who have a non-Lebanese father (1.4741) , $b = 1.34$, $SE = 0.03$, $p < .001$. Thus, the hypothesis 2.3 is not confirmed: “The relationship between CDM and CM is moderated by students’ region of origin”.

CE

The overall effect of region of origin on CM, when CE is equal to zero, is $b = 0.059$, $SE = 0.056$, $p > .05$. The overall effect of CE on CM, when region of origin is equal to zero, is $b = 1.33$, $SE = 0.04$, $p < .001$. The interaction between CE and students’ region of origin is equal to $R^2 = .4667$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CE and CM were tested and revealed positive for all region of origin values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on region of origin and especially who are originally from Beirut (-1.4747) , $b = 1.3$, $SE = 0.056$, $p < .001$, than for students who are one standard deviation above the mean and especially

who are originally from the Bekaa region (1.4741), $b = 1.37$, $SE = 0.056$, $p < .001$. Thus, the hypothesis 3.3 is not confirmed: “The relationship between CE and CM is moderated by students’ region of origin”.

WWK

The overall effect of region of origin on CM, when WWK is equal to zero, is $b = 0.099$, $SE = 0.06$, $p > .05$. The overall effect of WWK on CM, when region of origin is equal to zero, is $b = 0.6606$, $SE = 0.036$, $p < .001$. The interaction between WWK and students’ region of origin is equal to $R^2 = .2799$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between WWK and CM were tested and revealed positive for all region of origin values; yet, the causal effect of WWK on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on region of origin and especially who are originally from the Beirut region, (-1.4747), $b = 0.69$, $SE = 0.051$, $p < .001$, than its effect for students who are one standard deviation above the mean and especially who have a non-Lebanese father (1.4741), $b = 0.63$, $SE = 0.051$, $p < .001$. Thus, the hypothesis 4.3 is not confirmed: “The relationship between WWK and CM is moderated by students’ region of origin”.

Place of residency. On the residency, the studied sample ($N = 4015$) had a mean score of $M = 2.197$, $SD = 1.21$ as shown in Table 12. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 13.

Table 12

Mean and Standard Deviation of Mean of Place of Residency

	<i>N</i>	<i>M</i>	<i>SD</i>
Place of Residency	4015	2.20	1.21

Table 13

Mean and Standard Deviation of Mean of Place of Residency Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Mount Lebanon			Beirut			Bekaa		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1360	20.59	2.91	1496	20.67	3.14	423	21.45	2.86
Total CDM	1360	25.08	2.88	1496	24.90	3.09	423	24.22	2.86
Total CE	1360	10.80	1.98	1496	10.99	2.10	423	10.86	2.02
Total WWK	1360	15.59	2.49	1496	15.63	2.46	423	15.26	2.56
Total CM	1360	72.06	5.66	1496	72.19	6.15	423	71.79	5.49

CM Measure	South			North		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	480	21.34	2.95	256	20.71	2.99
Total CDM	480	24.60	2.96	256	24.89	3.08
Total CE	480	10.90	2.05	256	10.83	2.12
Total WWK	480	15.62	2.40	256	15.90	2.39
Total CM	480	72.45	5.66	256	72.33	6.16

CP

The overall effect of residency on CM, when CP is equal to zero, is $b = -.17$, $SE = 0.054$, $p < .01$. The overall effect of CP on CM, when residency is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and students' place of residency is equal to $R^2 = .7094$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CP and CM were tested and revealed positive for all region of origin values; yet, the causal effect of CP on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on place of residency and living in Beirut or Mount Lebanon regions (-1.1970), $b = 1.36$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and living in the Bekaa, South, or North regions (1.2073), $b = 1.4$, $SE = 0.031$, $p < .001$. Thus the

hypothesis 1.4 is not confirmed: “The relationship between CP and CM is moderated by students’ place of residency”.

CDM

The overall effect of residency on CM, when CDM is equal to zero, is $b = 0.25$, $SE = 0.055$, $p < .001$. The overall effect of CDM on CM, when residency is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and students’ residency is equal to $R^2 = .6993$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CDM and CM were tested and revealed positive for all place of residency values; yet, the causal effect of CDM on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on place of residency and living in Beirut or Mount Lebanon region (-1.1970), $b = 1.4$, $SE = 0.03$, $p < .001$, than for students who are one standard deviation above the mean and living in the Bekaa, South, or North regions (1.2073), $b = 1.35$, $SE = 0.03$, $p < .001$. Thus the hypothesis 2.4 is not confirmed: “The relationship between CDM and CM is moderated by students’ place of residency”.

CE

The overall effect of residency on CM, when CE is equal to zero, is $b = 0.056$, $SE = 0.068$, $p > .05$. The overall effect of CE on CM, when residency is equal to zero, is $b = 1.33$, $SE = 0.04$, $p < .001$. The interaction between CE and students’ place of residency is equal to $R^2 = .4667$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CE and CM were tested and revealed positive for all place of residency values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on place of residency and especially are living in the Beirut region (-1.1970) is slightly smaller, $b = 1.29$, $SE = 0.056$, $p < .001$, than for students who are one standard deviation above the mean and

especially are living in the Bekaa region (1.2073), $b = 1.38$, $SE = 0.056$, $p < .001$. Thus the hypothesis 3.4 is not confirmed: “The relationship between CE and CM is moderated by students’ place of residency”.

WWK

The overall effect of residency on CM, when WWK is equal to zero, is $b = 0.06$, $SE = 0.074$, $p > .05$. The overall effect of WWK on CM, when residency is equal to zero, is $b = 0.6603$, $SE = 0.036$, $p < .001$. The interaction between WWK and students’ place of residency is equal to $R^2 = .2793$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between WWK and CM were tested and revealed positive for all places of residency values; yet, the causal effect of WWK on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on place of residency and living in the Beirut or Mount Lebanon regions (-1.1970), $b = 0.7$, $SE = 0.051$, $p < .001$, than for students who are one standard deviation above the mean and living in the Bekaa or South regions (1.2073), $b = 0.62$, $SE = 0.052$, $p < .001$. Thus the hypothesis 4.4 is not confirmed: “The relationship between WWK and CM is moderated by students’ place of residency”.

Year of graduation. On the year of graduation, the studied sample ($N = 4015$) had a mean score of $M = 2015.36$, $SD = 1.83$ as shown in Table 14. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 15.

Table 14

Mean and Standard Deviation of Mean of Graduation Year

	<i>N</i>	<i>M</i>	<i>SD</i>
Graduation year	4015	2015.36	1.83

Table 15

Mean and Standard Deviation of Mean of Graduation Year Subscales on CP, CDM, CE, WWK, and CM

CM Measure	2012			2013		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	129	20.33	3.18	233	20.18	3.28
Total CDM	129	25.15	3.05	233	25.68	2.91
Total CE	129	10.20	2.31	233	11.05	2.22
Total WWK	129	15.63	3.18	233	15.86	2.38
Total CM	129	71.30	6.01	233	72.76	5.83

CM Measure	2014			2015			2016		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1043	20.66	3.09	1006	20.92	2.89	761	21.01	2.92
Total CDM	1043	25.05	2.99	1006	24.88	2.99	761	24.63	2.92
Total CE	1043	10.85	2.09	1006	10.84	2.08	761	11.01	1.91
Total WWK	1043	15.70	2.53	1006	15.63	2.45	761	15.40	2.34
Total CM	1043	72.26	5.78	1006	72.26	5.79	761	72.05	5.86

CM Measure	2017			2018			2019		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	427	20.89	3.08	213	20.87	3.19	58	21.19	2.80
Total CDM	427	24.48	2.89	213	24.39	3.00	58	25.14	3.05
Total CE	427	10.91	1.95	213	11.21	2.00	58	10.90	2.20
Total WWK	427	15.34	2.43	213	15.34	2.33	58	15.64	2.68
Total CM	427	71.62	5.86	213	71.81	6.62	58	72.86	5.69

CM Measure	2020			2021			2022		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	95	20.84	2.89	26	21.04	2.37	8	21.00	1.60
Total CDM	95	24.06	3.17	26	25.58	3.04	8	24.38	2.92
Total CE	95	10.75	1.76	26	10.54	2.06	8	11.63	1.30
Total WWK	95	16.15	2.18	26	16.54	2.52	8	16.13	2.30
Total CM	95	71.80	5.61	26	73.69	5.27	8	73.13	4.79

CM Measure	2023			2024			2025		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	5	20.40	1.82	3	21.00	.00	3	21.67	1.15
Total CDM	5	22.80	3.35	3	25.33	1.53	3	24.33	1.15
Total CE	5	10.40	1.34	3	11.67	.58	3	10.67	2.31
Total WWK	5	16.20	3.42	3	16.00	1.00	3	15.33	3.21
Total CM	5	69.80	6.46	3	74.00	1.73	3	72.00	1.73

CM Measure	2026			2030		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	2	25.50	.71	3	23.33	3.21
Total CDM	2	30.00	.00	3	25.33	6.11
Total CE	2	11.50	.71	3	10.67	2.08
Total WWK	2	20.50	2.12	3	15.67	4.51
Total CM	2	87.50	2.12	3	75.00	7.55

CP

The overall effect of year graduation on CM, when CP is equal to zero, is $b = -0.07$, $SE = 0.03$, $p < .05$. The overall effect of CP on CM, when year of graduation is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and students' year of graduation is equal to $R^2 = .71$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CP and CM were tested and revealed positive; yet, the causal effect of CP on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on year of graduation (-2.2921), $b = 1.35$, $SE = 0.032$, $p < .001$, than for students who are one standard deviation above the mean (2.2921), $b = 1.41$, $SE = 0.032$, $p < .001$. Thus the hypothesis 1.5 is not confirmed: "The relationship between CP and CM is moderated by students' year of graduation".

CDM

The overall effect of year of graduation on CM, when CDM is equal to zero, is $b = 0.09$, $SE = 0.029$, $p < .01$. The overall effect of CDM on CM, when year of graduation is

equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and students' year of graduation is equal to $R^2 = .6985$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0005$. Simple slopes for the association between CDM and CM were tested and revealed positive; yet, the causal effect of CDM on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on year of graduation (-2.2921), $b = 1.32$, $SE = 0.034$, $p < .001$, than for students who are one standard deviation above the mean (2.2921) $b = 1.42$, $SE = 0.034$, $p < .001$. Thus the hypothesis 2.5 is not confirmed: "The relationship between CDM and CM is moderated by students' year of graduation".

CE

The overall effect of year of graduation on CM, when CE is equal to zero, is $b = -0.04$, $SE = 0.036$, $p > .05$. The overall effect of CE on CM, when year of graduation is equal to zero, is $b = 1.335$, $SE = 0.04$, $p < .001$. The interaction between CE and students' place of residency is equal to $R^2 = .4685$ and is statistically significant $p < .01$, with a small effect size $\Delta R^2 = .0018$. Simple slopes for the association between CE and CM were tested and revealed positive; yet, the causal effect of CE on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on year of graduation (-2.2921), $b = 1.19$, $SE = 0.062$, $p < .001$, than for students who are one standard deviation above the mean (2.2921) $b = 1.51$, $SE = 0.069$, $p < .001$. Thus the hypothesis 3.5 is confirmed: "The relationship between CE and CM is moderated by students' year of graduation".

WWK

The overall effect of year of graduation on CM, when WWK is equal to zero, is $b = -0.021$, $SE = 0.039$, $p > .05$. The overall effect of career WWK on CM, when residency is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and students' year of graduation is equal to $R^2 = .2802$ and is statistically significant $p < .001$, with a small

effect size $\Delta R^2 = .0009$. Simple slopes for the association between WWK and CM were tested and revealed positive; yet, the causal effect of WWK on CM was significantly more amplified or strengthened for students who are one standard deviation below the mean on year of graduation (-2.2921), $b = 0.58$, $SE = 0.054$, $p < .001$, than for students who are one standard deviation above the mean (2.2921), $b = 0.75$, $SE = 0.057$, $p < .001$. Thus the hypothesis 4.5 is confirmed: “The relationship between WWK and CM is moderated by students’ year of graduation”.

University name. On the university name, the studied sample ($N = 4015$) had a mean score of $M = 28.06$, $SD = 12.34$ as shown in Table 16. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 17.

Table 16

Mean and Standard Deviation of Mean of University Name

	<i>N</i>	<i>M</i>	<i>SD</i>
University name	4015	28.06	12.35

Table 17

Mean and Standard Deviation of Mean of University Name Subscales on CP, CDM, CE, WWK, and CM

CM Measure	University A			University B		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	23	21.57	3.57	23	21.26	2.70
Total CDM	23	23.74	4.15	23	23.57	2.57
Total CE	23	11.87	2.10	23	11.48	2.06
Total WWK	23	14.61	2.92	23	15.04	1.85
Total CM	23	71.78	6.99	23	71.35	6.62

CM Measure	University C			University D			University E		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	381	19.36	3.01	5	21.40	1.82	9	19.67	2.18
Total CDM	381	25.66	2.59	5	25.60	1.82	9	24.00	3.50
Total CE	381	11.26	1.97	5	11.80	2.17	9	10.00	3.39
Total WWK	381	16.33	2.40	5	12.80	3.03	9	15.11	2.67
Total CM	381	72.61	5.36	5	71.60	3.13	9	68.78	6.50

CM Measure	University F			University G			University H		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	3	20.67	1.53	72	21.06	2.55	64	21.95	2.69
Total CDM	3	26.33	.58	72	24.33	2.16	64	24.97	2.83
Total CE	3	10.33	1.53	72	11.13	1.91	64	11.36	2.04
Total WWK	3	16.67	2.08	72	15.67	2.42	64	14.33	3.22
Total CM	3	74.00	1.73	72	72.18	4.48	64	72.61	4.64

CM Measure	University I			University J			University K		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	117	21.17	3.12	5	19.60	3.78	1	20.00	.
Total CDM	117	25.47	2.75	5	24.80	4.32	1	25.00	.
Total CE	117	11.04	2.02	5	9.40	2.41	1	11.00	.
Total WWK	117	14.97	2.37	5	18.80	1.92	1	18.00	.
Total CM	117	72.65	5.48	5	72.60	7.83	1	74.00	.

CM Measure	University L			University M			University N		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	189	20.56	3.49	140	20.43	2.94	2	22.50	2.12
Total CDM	189	26.34	2.68	140	26.36	2.49	2	28.50	4.95
Total CE	189	11.12	1.97	140	11.00	1.94	2	10.50	2.12
Total WWK	189	15.74	2.52	140	16.04	2.43	2	12.50	2.12
Total CM	189	73.75	6.28	140	73.84	5.36	2	74.00	7.07

CM Measure	University O			University P			University Q		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	745	21.42	2.99	1	26.00	.	112	20.52	2.78
Total CDM	745	24.89	2.84	1	28.00	.	112	26.79	2.56
Total CE	745	10.75	2.18	1	12.00	.	112	10.60	2.02
Total WWK	745	15.75	2.37	1	19.00	.	112	15.74	2.65
Total CM	745	72.80	5.62	1	85.00	.	112	73.64	5.46

CM Measure	University R			University S			University T		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1	18.00	.	124	21.03	2.13	83	20.70	2.76
Total CDM	1	25.00	.	124	24.46	2.51	83	25.72	2.90
Total CE	1	4.00	.	124	10.86	1.93	83	9.88	2.44
Total WWK	1	17.00	.	124	15.42	2.28	83	15.30	2.99
Total CM	1	64.00	.	124	71.77	4.88	83	71.60	6.22

CM Measure	University U			University V			University W		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1525	20.88	2.92	30	20.40	3.08	241	20.64	3.30
Total CDM	1525	23.89	2.96	30	25.33	2.86	241	25.95	2.97
Total CE	1525	10.85	1.94	30	10.43	2.34	241	10.95	2.06
Total WWK	1525	15.31	2.33	30	16.47	3.27	241	15.81	2.81
Total CM	1525	70.94	5.94	30	72.63	6.75	241	73.35	5.88

CM Measure	University X			University Y		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	118	20.85	3.08	1	21.00	.
Total CDM	118	25.86	3.22	1	23.00	.
Total CE	118	10.99	2.24	1	12.00	.
Total WWK	118	16.18	2.19	1	17.00	.
Total CM	118	73.87	6.78	1	73.00	.

CP

The overall effect of the university name on CM, when CP is equal to zero, is $b = -0.057$, $SE = 0.005$, $p < .001$. The overall effect of CP on CM, when university name is equal to zero, is $b = 1.4$, $SE = 0.021$, $p < .001$. The interaction between CP and university name is equal to $R^2 = .722$ and is statistically significant $p < .05$, with a small effect size $\Delta R^2 = .003$. Simple slopes for the association between CP and CM were tested and revealed positive for all university name values; yet, the causal effect of CP on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on university name (-12.3499), $b = 1.29$, $SE = 0.029$, $p < .001$, than for students who are one standard deviation above the mean (12.3499), $b = 1.50$, $SE = 0.031$, $p < .001$. Thus the

hypothesis 1.6 is confirmed: “The relationship between CP and CM is moderated by students’ university name”.

CDM

The overall effect of university name on CM, when CDM is equal to zero, is $b = 0.004$, $SE = 0.005$, $p > .05$. The overall effect of CDM on CM, when year of graduation is equal to zero, is $b = 1.36$, $SE = 0.023$, $p < .001$. The interaction between CDM and university name is equal to $R^2 = .6983$ and is statistically significant $p < .01$, with a small effect size $\Delta R^2 = .0013$. Simple slopes for the association between CDM and CM were tested and revealed positive for all university name values except one university; yet, the causal effect of CDM on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on university name (-12.3499), $b = 1.29$, $SE = 0.034$, $p < .001$, than for students who are one standard deviation above the mean (12.3499), $b = 1.44$, $SE = 0.031$, $p < .001$. Thus the hypothesis 2.6 is confirmed: “The relationship between CDM and CM is moderated by students’ university name”.

CE

The overall effect of year of graduation on CM, when CE is equal to zero, is $b = -0.025$, $SE = 0.007$, $p < .001$. The overall effect of CE on CM, when university name is equal to zero, is $b = 1.33$, $SE = 0.04$, $p < .001$. The interaction between CE and university name is equal to $R^2 = .4691$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CE and CM were tested and revealed positive for the majority of university name values; and the causal effect of CE on CM was amplified or strengthened for students who are one standard deviation below the mean on university name (-12.3499), $b = 1.32$, $SE = 0.057$, $p < .001$, as much as for students who are one standard deviation above the mean (12.3499), $b = 1.33$, $SE = 0.057$, $p < .001$. Thus the hypothesis 2.6

is not confirmed: “The relationship between CE and CM is moderated by students’ university name”.

WWK

The overall effect of university name on CM, when WWK is equal to zero, is $b = -0.033$, $SE = 0.007$, $p < .001$. The overall effect of career WWK on CM, when university name is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and university name is equal to $R^2 = .2953$ and is statistically significant $p < .05$, with a small effect size $\Delta R^2 = .0052$. Simple slopes for the association between WWK and CM were tested and revealed positive for the majority of university name values; yet, the causal effect of WWK on CM was significantly less amplified or strengthened for students who are one standard deviation below the mean on university name (-12.3499), $b = 0.49$, $SE = 0.049$, $p < .001$, than for students who are one standard deviation above the mean (12.3499), $b = 0.83$, $SE = 0.051$, $p < .001$. Thus the hypothesis 4.6 is confirmed: “The relationship between WWK and CM is moderated by students’ university name”.

University type. On the university type, the studied sample ($N = 4015$) had a mean score of $M = 1.37$, $SD = 0.48$ as shown in Table 18. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 19.

Table 18

Mean and Standard Deviation of Mean of University Type

	<i>N</i>	<i>M</i>	<i>SD</i>
University Type	4015	1.38	.49

Table 19

Mean and Standard Deviation of Mean of University Type Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Private			Public		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	2490	20.76	3.08	1525	20.88	2.92
Total CDM	2490	25.44	2.85	1525	23.89	2.96
Total CE	2490	10.92	2.11	1525	10.85	1.94
Total WWK	2490	15.76	2.53	1525	15.31	2.33
Total CM	2490	72.88	5.69	1525	70.94	5.94

CP

The overall effect of university type on CM, when CP is equal to zero, is $b = -2.11$, $SE = 0.13$, $p < .05$. The overall effect of CP on CM, when university type is equal to zero, is $b = 1.39$, $SE = 0.021$, $p < .001$. The interaction between CP and university type is equal to $R^2 = .7315$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0028$. Simple slopes for the association between CP and CM were tested and revealed positive for all university type values; yet, the causal effect of CP on CM was significantly more amplified or strengthened for students who are enrolled in public universities (0.6202), $b = 1.52$, $SE = 0.035$, $p < .001$, than for students who are enrolled in private universities (-0.3072), $b = 1.31$, $SE = 0.026$, $p < .001$. Further analysis revealed that at the starting scores of CP for public university students scored on CM lower than private university students. Yet, at higher scores of CP public university students and private university students scored approximately the same on CM. This would indicate that public university students need to plan more than private university students in order to be ready to make career decision making. Thus the hypothesis 1.7 is confirmed: “The relationship between CP and CM is moderated by students’ university type”.

CDM

The overall effect of university type on CM, when CDM is equal to zero, is $b = 0.24$, $SE = 0.14$, $p > .05$. The overall effect of CDM on CM, when university type is equal to zero, is $b = 1.37$, $SE = 0.023$, $p < .001$. The interaction between CDM and university type is equal to $R^2 = .6986$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0017$. Simple slopes for the association between CDM and CM were tested and revealed positive for all university type values; yet, the causal effect of CDM on CM was significantly more amplified or strengthened for students who are enrolled in public universities (0.6202), $b = 1.48$, $SE = 0.036$, $p < .001$, than for students who are enrolled in private universities (-0.3798), $b = 1.31$, $SE = 0.03$, $p < .001$. Further analysis revealed that at the starting scores of CDM for public university students scored on CM lower than private university students. Yet, at higher scores of CDM public university students scored higher than private university students. This would indicate that CDM initiatives at public universities seem to be better than those employed within private universities. Thus the hypothesis 2.7 is confirmed: "The relationship between CDM and CM is moderated by students' university type".

CE

The overall effect of university type on CM, when CE is equal to zero, is $b = -1.85$, $SE = 0.17$, $p < .05$. The overall effect of CE on CM, when university type is equal to zero, is $b = 1.33$, $SE = 0.04$, $p < .001$. The interaction between CE and university type is equal to $R^2 = .4913$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0003$. Simple slopes for the association between CE and CM were tested and revealed positive for all university type values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students who are enrolled in public universities (0.6202), $b = 1.4$, $SE = 0.067$, $p < .001$, than for students who are enrolled in private universities (-0.3798),

$b = 1.29$, $SE = 0.049$, $p < .001$. Thus the hypothesis 3.7 is not confirmed: “The relationship between CE and CM is moderated by students’ university type”.

WWK

The overall effect of university type on CM, when WWK is equal to zero, is $b = -1.64$, $SE = 0.18$, $p < .001$. The overall effect of WWK on CM, when university type is equal to zero, is $b = 0.64$, $SE = 0.036$, $p < .001$. The interaction between WWK and university type is equal to $R^2 = .3127$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0013$. Simple slopes for the association between WWK and CM were tested and revealed positive for all university type values; yet, the causal effect of WWK on CM was significantly more amplified or strengthened for students who are enrolled in public universities (0.6202), $b = 0.75$, $SE = 0.061$, $p < .001$, than for students who enrolled in private universities (-0.3798), $b = 0.57$, $SE = 0.044$, $p < .001$. Further analysis revealed that at the starting scores of WWK for public university students scored on CM lower than private university students. As well, at higher scores of WWK public university students scored reasonably lower than private university students on CM. This would indicate that actions taken by private university students towards career exploration appear more efficient than WWK actions taken by public university students. Thus the hypothesis 4.7 is confirmed: “The relationship between WWK and CM is moderated by students’ university type”.

University region. On the university region, the studied sample ($N = 4015$) had a mean score of $M = 2.15$, $SD = 1.03$ as shown in Table 20. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 21.

Table 20

Mean and Standard Deviation of Mean of University Region

	<i>N</i>	<i>M</i>	<i>SD</i>
University region	4015	2.15	1.03

Table 21

Mean and Standard Deviation of Mean of University Region Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Mount Lebanon			Beirut			Bekaa		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	989	20.74	2.86	2158	20.63	3.11	359	21.49	2.86
Total CDM	989	25.13	2.91	2158	24.85	3.03	359	24.22	2.90
Total CE	989	10.80	2.03	2158	10.96	2.05	359	10.81	2.05
Total WWK	989	15.47	2.50	2158	15.68	2.46	359	15.25	2.59
Total CM	989	72.14	5.78	2158	72.11	5.93	359	71.77	5.50

CM Measure	South			North		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	310	21.40	2.94	199	20.92	2.87
Total CDM	310	24.48	2.95	199	25.21	2.93
Total CE	310	10.79	2.02	199	10.92	2.08
Total WWK	310	15.67	2.34	199	15.76	2.36
Total CM	310	72.35	5.76	199	72.81	6.28

CP

The overall effect of university region on CM, when CP is equal to zero, is $b = -.15$, $SE = 0.063$, $p < .05$. The overall effect of CP on CM, when university region is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and university region is equal to $R^2 = .709$ and is not statistically significant $p > .05$. Simple slopes for the association between WWK and CM were tested and revealed positive for all university type values; yet, the causal effect of WWK on CM was significantly more amplified or strengthened for students who are enrolled in public universities (0.6202), $b = 0.75$, $SE = 0.061$, $p < .001$, than

for students who enrolled in private universities (-0.3798), $b = 0.57$, $SE = 0.044$, $p < .001$.

Further analysis revealed. Thus, the hypothesis 1.8 is not confirmed: “The relationship between CP and CM is moderated by students’ university region”.

CDM

The overall effect of university region on CM, when CDM is equal to zero, is $b = 0.26$, $SE = 0.064$, $p < .001$. The overall effect of CDM on CM, when university region is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and university region is equal to $R^2 = .6987$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CDM and CM were tested and revealed positive for all university region values; and the causal effect of CDM on CM was amplified or strengthened for students who are one standard deviation above the mean on university region and enrolled in universities located in the Bekaa, South, or North districts (1.0342), $b = 1.38$, $SE = 0.032$, $p < .001$, as much as for students who are one standard deviation below the mean and enrolled in universities located in the Beirut and Mount Lebanon districts (-1.0342), $b = 1.37$, $SE = 0.032$, $p < .001$. Thus, the hypothesis 2.8 is not confirmed: “The relationship between CDM and CM is moderated by students’ university region”.

CE

The overall effect of university region on CM, when CE is equal to zero, is $b = 0.09$, $SE = 0.08$, $p > .05$. The overall effect of CE on CM, when university region is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and university region is equal to $R^2 = .467$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0005$. Simple slopes for the association between CE and CM were tested and revealed positive for all university region values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students who are one standard deviation above the mean on university region and enrolled in universities located in the Bekaa, South, or North districts

(1.0342), $b = 1.4$, $SE = 0.056$, $p < .001$, than for students who are one standard deviation below the mean and enrolled in universities located in the Beirut and Mount Lebanon districts (-1.0342) $b = 1.27$, $SE = 0.057$, $p < .001$. Thus, the hypothesis 3.8 is not confirmed: “The relationship between CE and CM is moderated by students’ university region”.

WWK

The overall effect of university region on CM, when WWK is equal to zero, is $b = 0.068$, $SE = 0.086$, $p > .05$. The overall effect of WWK on CM, when university region is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and university region is equal to $R^2 = .2788$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between WWK and CM were tested and revealed positive for all university region values; and the causal effect of WWK on CM was amplified or strengthened for students who are one standard deviation above the mean on university region and enrolled in universities located in the Bekaa, South, or North districts (1.0342), $b = 0.67$, $SE = 0.052$, $p < .001$, as much as for students who are one standard deviation above the mean (1.0342), $b = 0.65$, $SE = 0.051$, $p < .001$. Thus, the hypothesis 4.8 is not confirmed: “The relationship between WWK and CM is moderated by students’ university region”.

Level of degree. On the level of degree, the studied sample ($N = 4015$) had a mean score of $M = 1.24$, $SD = 0.47$ as shown in Table 22. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 23.

Table 22

Mean and Standard Deviation of Mean of Level of Degree

	<i>N</i>	<i>M</i>	<i>SD</i>
Level of Degree	4015	1.24	.47

Table 23

Mean and Standard Deviation of Mean of Level of Degree Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Bachelor			Master			Doctorate		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	3146	20.87	2.98	789	20.65	3.13	80	20.03	3.13
Total CDM	3146	24.88	2.97	789	24.76	3.04	80	24.81	3.12
Total CE	3146	10.95	1.99	789	10.66	2.23	80	10.70	2.24
Total WWK	3146	15.60	2.43	789	15.52	2.59	80	15.94	2.88
Total CM	3146	72.30	5.84	789	71.59	5.87	80	71.48	6.27

CP

The overall effect of level of degree on CM, when CP is equal to zero, is $b = -.023$, $SE = 0.14$, $p > .05$. The overall effect of CP on CM, when level of degree is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and level of degree is equal to $R^2 = .7088$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CP and CM were tested and revealed positive for all level of degree values; yet, the causal effect of CP on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on level of degree and enrolled in bachelor degrees (-0.2364), $b = 1.4$, $SE = 0.025$, $p < .001$, than for students who are one standard deviation above the mean and enrolled in masters degrees (0.4695), $b = 1.35$, $SE = 0.03$, $p < .001$. Thus, the hypothesis 1.9 is not confirmed: “The relationship between CP and CM is moderated by students’ level of degree”.

CDM

The overall effect of level of degree on CM, when CDM is equal to zero, is $b = -0.49$, $SE = 0.14$, $p < .05$. The overall effect of CDM on CM, when level of degree is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and level of degree is equal to $R^2 = .6984$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$.

Simple slopes for the association between CDM and CM were tested and revealed positive for all level of degree values; and the causal effect of CDM on CM was amplified or strengthened for students who are one standard deviation below the mean on level of degree and enrolled in bachelor degrees (-0.2364), $b = 1.37$, $SE = 0.025$, $p < .001$, as much as for students who are one standard deviation above the mean and enrolled in masters and doctorate degrees (0.4695), $b = 1.35$, $SE = 0.03$, $p < .001$. Thus, the hypothesis 2.9 is not confirmed: “The relationship between CDM and CM is moderated by students’ level of degree”.

CE

The overall effect of level of degree on CM, when CE is equal to zero, is $b = -0.33$, $SE = 0.17$, $p > .05$. The overall effect of CE on CM, when level of degree is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and level of degree is equal to $R^2 = .4686$ and is statistically significant $p < .01$, with a null effect size $\Delta R^2 = .0016$. Simple slopes for the association between CE and CM were tested and revealed positive for all level of degree values; yet, the causal effect of CE on CM was significantly more amplified or strengthened for students who are one standard deviation below the mean on level of degree and enrolled in bachelor degrees (-0.2364), $b = 1.4$, $SE = 0.046$, $p < .001$, than for students who are one standard deviation above the mean and enrolled in masters and doctorate degrees (0.4695), $b = 1.23$, $SE = 0.053$, $p < .001$. Further analysis revealed that at the starting scores of CE doctorate students scored on CM higher than bachelor and masters’ students. Yet, at higher scores of CE bachelor students came in the first place in terms of CM, followed by masters’ students, then by doctorate students. One assumption could be made here, which is students at advanced educational level would appear more aware of their career interest after accumulating all needed information to make a career choice. Perhaps attaining an advanced stage where individuals believe that they have chosen the most suitable career for their

aspirations would less occupy themselves in planning, decision-making, and in expanding world of work knowledge initiatives. Thus, the hypothesis 3.9 is confirmed: “The relationship between CE and CM is moderated by students’ level of degree”.

WWK

The overall effect of level of degree on CM, when WWK is equal to zero, is $b = -.061$, $SE = 0.19$, $p < .01$. The overall effect of WWK on CM, when level of degree is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and level of degree is equal to $R^2 = .2831$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between WWK and CM were tested and revealed positive for all level of degree values; yet, the causal effect of WWK on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean on level of degree and enrolled in bachelor degrees (-0.2364), $b = 0.68$, $SE = 0.041$, $p < .001$, than for students who are one standard deviation above the mean and enrolled in masters and doctorate degrees (0.4695), $b = 0.63$, $SE = 0.048$, $p < .001$. Thus, the hypothesis 4.9 is not confirmed: “The relationship between WWK and CM is moderated by students’ level of degree”.

Change of major. On the change of major, the studied sample ($N = 4015$) had a mean score of $M = 1.78$, $SD = 0.42$ as shown in Table 24. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 25.

Table 24

Mean and Standard Deviation of Mean of Change of Major

	<i>N</i>	<i>M</i>	<i>SD</i>
Change of Major	4015	1.78	.42

Table 25

Mean and Standard Deviation of Mean of Change of Major Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Yes			No		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	903	20.70	3.23	3112	20.84	2.95
Total CDM	903	25.08	3.06	3112	24.79	2.96
Total CE	903	10.75	2.17	3112	10.93	2.01
Total WWK	903	15.80	2.45	3112	15.53	2.47
Total CM	903	72.33	6.08	3112	72.09	5.79

CP

The overall effect of change of major on CM, when CP is equal to zero, is $b = -0.43$, $SE = 0.16$, $p < .01$. The overall effect of CP on CM, when change of major is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CP and change of major is equal to $R^2 = .7092$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CP and CM were tested and revealed positive for all change of major values; yet, the causal effect of CP on CM was slightly more amplified or strengthened for students who did not change their major (0.2249), $b = 1.39$, $SE = 0.025$, $p < .001$, than for students who did change their majors (-0.7751), $b = 1.35$, $SE = 0.043$, $p < .001$. Thus, the hypothesis 1.10 is not confirmed: “The relationship between CP and CM is moderated by students’ change of major”.

CDM

The overall effect of change of major on CM, when CDM is equal to zero, is $b = 0.15$, $SE = 0.16$, $p > .05$. The overall effect of CDM on CM, when change of major is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and change of major is equal to $R^2 = .6974$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$.

Simple slopes for the association between CDM and CM were tested and revealed positive

for all change of major values; and the causal effect of CDM on CM was amplified or strengthened for students who did not change their major (0.2249), $b = 1.37$, $SE = 0.025$, $p < .001$, as much as for students who did change their majors, $b = 1.35$, $SE = 0.046$, $p < .001$. Thus, the hypothesis 2.10 is not confirmed: “The relationship between CDM and CM is moderated by students’ change of major”.

CE

The overall effect of change of major on CM, when CE is equal to zero, is $b = -0.48$, $SE = 0.2$, $p < .05$. The overall effect of CE on CM, when change of major is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and change of major is equal to $R^2 = .4676$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CE and CM were tested and revealed positive for all change of major values; and the causal effect of CE on CM was amplified or strengthened for students who did not change their major (0.2249), $b = 1.37$, $SE = 0.08$, $p < .001$, as much as for students who did not change their majors, $b = 1.33$, $SE = 0.046$, $p < .001$. Thus, the hypothesis 3.10 is not confirmed: “The relationship between CE and CM is moderated by students’ change of major”.

WWK

The overall effect of change of major on CM, when WWK is equal to zero, is $b = -0.07$, $SE = 0.21$, $p > .05$. The overall effect of WWK on CM, when change of major is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and change of major is equal to $R^2 = .2787$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between WWK and CM were tested and revealed positive for all change of major values; and the causal effect of WWK on CM was amplified or strengthened for students who did not change their major (0.2249), $b = 0.67$, $SE = 0.041$, $p < .001$, as much as for students who did change their majors, $b = 0.63$, $SE = 0.077$, $p < .001$.

Thus, the hypothesis 4.10 is not confirmed: “The relationship between WWK and CM is moderated by students’ change of major”.

Change of major frequency. On the change of major frequency, the studied sample ($n = 904$) had a mean score of $M = 1.27$, $SD = 0.67$ as shown in Table 26. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 27.

Table 26

Mean and Standard Deviation of Mean of Change of Major Frequency

	<i>n</i>	<i>M</i>	<i>SD</i>
Change of Major Frequency	904	1.27	.67

Table 27

Mean and Standard Deviation of Mean of Change of Major Frequency Subscales on CP, CDM, CE, WWK, and CM

CM Measure	1			2			3		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	739	20.74	3.13	117	20.63	3.53	30	21.20	3.17
Total CDM	739	25.18	2.85	117	24.75	3.55	30	25.00	3.56
Total CE	739	10.78	2.16	117	10.74	2.17	30	10.47	1.98
Total WWK	739	15.80	2.36	117	15.74	2.74	30	15.93	2.69
Total CM	739	72.49	5.74	117	71.86	7.51	30	72.60	5.73

CM Measure	4			>= 5		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	8	19.38	7.56	10	18.90	4.98
Total CDM	8	25.88	4.45	10	21.60	6.92
Total CE	8	10.75	3.58	10	9.80	2.15
Total WWK	8	15.25	3.20	10	16.20	4.08
Total CM	8	71.25	9.65	10	66.50	9.95

CP

The overall effect of change of major frequency on CM, when CP is equal to zero, is $b = -0.43$, $SE = 0.21$, $p < .05$. The overall effect of CP on CM, when change of major frequency is equal to zero, is $b = 1.33$, $SE = 0.044$, $p < .001$. The interaction between CP and change of major frequency is equal to $R^2 = .7233$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0007$. Simple slopes for the association between CP and CM were tested and revealed positive for all change of major frequency values; yet, the causal effect of CP on CM was slightly more amplified or strengthened for students are one standard deviation above the mean on change of major frequency and changed their majors two or five times (0.6695), $b = 1.37$, $SE = 0.049$, $p < .001$, than for students who are one standard deviation below the mean and changed their majors only one time (-0.2666), $b = 1.32$, $SE = 0.048$, $p < .001$. Thus, the hypothesis 1.11 is not confirmed: “The relationship between CP and CM is moderated by students’ change of major frequency”.

CDM

The overall effect of change of major frequency on CM, when CDM is equal to zero, is $b = -0.21$, $SE = 0.23$, $p > .05$. The overall effect of CDM on CM, when change of major frequency is equal to zero, is $b = 1.34$, $SE = 0.051$, $p < .001$. The interaction between CDM and change of major frequency is equal to $R^2 = .6736$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CDM and CM were tested and revealed positive for all change of major frequency values; yet, the causal effect of CDM on CM was slightly less amplified or strengthened for students are one standard deviation above the mean on change of major frequency and changed their majors three, four or five times (0.6695), $b = 1.33$, $SE = 0.052$, $p < .001$, than for students who are one standard deviation below the mean and changed their majors only one time (-0.2666), $b = 1.34$, $SE = 0.055$, $p < .001$. Thus, the hypothesis 2.11 is not

confirmed: “The relationship between CDM and CM is moderated by students’ change of major frequency”.

CE

The overall effect of change of major frequency on CM, when CE is equal to zero, is $b = -0.35$, $SE = 0.27$, $p > .05$. The overall effect of CE on CM, when change of major frequency is equal to zero, is $b = 1.35$, $SE = 0.08$, $p < .001$. The interaction between CE and change of major frequency is equal to $R^2 = .5058$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0168$. Simple slopes for the association between CE and CM were tested and revealed positive for all change of major frequency values; yet, the causal effect of CE on CM was significantly more amplified or strengthened for students are one standard deviation above the mean on change of major frequency and changed their majors two or more times (0.6695), $b = 1.69$, $SE = 0.11$, $p < .001$, than for students who are one standard deviation below the mean and changed their majors only one time (-0.2666), $b = 1.22$, $SE = 0.088$, $p < .001$. Further analysis revealed that at the starting scores of CE for students, who changed their majors more than 5 times, scored on CM was largely lower than other students. Yet, at higher scores of CE students, who changed their majors more than 5 times, scored higher than other students. This would indicate that exploring a wider range of existing majors would improve individuals’ skills during the career decision making process. Thus, the hypothesis 3.11 is confirmed: “The relationship between CE and CM is moderated by students’ change of major frequency”.

WWK

The overall effect of change of major frequency on CM, when WWK is equal to zero, is $b = -0.71$, $SE = 0.29$, $p < .05$. The overall effect of WWK on CM, when change of major frequency is equal to zero, is $b = 0.7$, $SE = 0.08$, $p < .001$. The interaction between WWK and change of major frequency is equal to $R^2 = .3081$ and is statistically significant $p < .001$, with

a small effect size $\Delta R^2 = .0206$. Simple slopes for the association between WWK and CM were tested and revealed positive for only students who changed their majors for three times or less; yet, the causal effect of WWK on CM was significantly less amplified or strengthened for students are one standard deviation above the mean on change of major frequency and changed their majors three or five times (0.6695), $b = 0.42$, $SE = 0.09$, $p < .001$, than for students who are one standard deviation below the mean and changed their majors only one time (-0.2666), $b = 0.81$, $SE = 0.087$, $p < .001$. Further analysis revealed that at the starting scores of WWK for students, who changed their majors more than 4 times, scored on CM largely higher than other students. Yet, at higher scores of WWK students, who changed their majors more than 4 times, scored largely lower than other students. Perhaps experiencing several career indecisions during individuals' life that resulted in a career decision-making that suits personal aspirations. Thus, further planning, exploration, or decision-making would not appear necessary. Consequently, being less engaged in such type of actions would affect negatively the CM of individuals. Thus, the hypothesis 4.11 is confirmed: "The relationship between WWK and CM is moderated by students' change of major frequency".

Father's level of education. On the father's level of education, the studied sample ($n = 4010$) had a mean score of $M = 2.05$, $SD = 0.86$ as shown in Table 28. The mean and standard deviation of the mean of each category's scores on CM and its components are summarised in Table 29.

Table 28

Mean and Standard Deviation of Mean of Father's Level of Education

	<i>n</i>	<i>M</i>	<i>SD</i>
Father's Level of Education	4010	2.05	.86

Table 29

Mean and Standard Deviation of Mean of Father's Level of Education Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Did not finish high school			High school			University		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1368	21.16	2.94	1068	20.91	3.00	1574	20.44	3.05
Total CDM	1368	24.59	3.05	1068	24.72	2.91	1574	25.17	2.95
Total CE	1368	10.81	2.07	1068	10.90	2.09	1574	10.96	2.00
Total WWK	1368	15.47	2.45	1068	15.41	2.49	1574	15.83	2.46
Total CM	1368	72.03	5.91	1068	71.94	5.94	1574	72.39	5.76

CP

The overall effect of father's level of education on CM, when CP is equal to zero, is $b = 0.7$, $SE = 0.076$, $p < .001$. The overall effect of CP on CM, when father's level of education is equal to zero, is $b = 1.4$, $SE = 0.022$, $p < .001$. The interaction between CP and father's level of education is equal to $R^2 = .7168$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .002$. Simple slopes for the association between CP and CM were tested and revealed positive for all father's level of education values; yet, the causal effect of CP on CM was significantly more amplified or strengthened for students are one standard deviation below the mean on father's level of education and have fathers who attained a high school level or lower (-0.8551), $b = 1.49$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and have fathers who obtained a university diploma (0.8551), $b = 1.31$, $SE = 0.03$, $p < .001$. Further analysis revealed that at the starting scores of CP for students, who have a father who completed university studies, scored higher on CM than students who have a father who completed or not high school studies. Yet, at higher scores of CP all students regardless of the father level of education scored approximately the same on CM. This would indicate that differences at the lower scores of CM would be attributed to the influence of students' father's level of education. Thus, the hypothesis 1.12 is

confirmed: “The relationship between CP and CM is moderated by students’ father’s level of education”.

CDM

The overall effect of father’s level of education on CM, when CDM is equal to zero, is $b = -0.22$, $SE = 0.78$, $p < .05$. The overall effect of CDM on CM, when father’s level of education is equal to zero, is $b = 1.37$, $SE = 0.022$, $p < .001$. The interaction between CDM and father’s level of education is equal to $R^2 = .698$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CDM and CM were tested and revealed positive for all father’s level of education values; yet, the causal effect of CDM on CM was slightly more amplified or strengthened for students are one standard deviation below the mean on father’s level of education and have fathers who attained a high school level or lower (-0.8551), $b = 1.38$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and have fathers who obtained a university diploma (0.8551), $b = 1.37$, $SE = 0.032$, $p < .001$. Thus, the hypothesis 2.12 is not confirmed: “The relationship between CDM and CM is moderated by students’ father’s level of education”.

CE

The overall effect of father’s level of education on CM, when CE is equal to zero, is $b = 0.088$, $SE = 0.096$, $p < .05$. The overall effect of CE on CM, when father’s level of education is equal to zero, is $b = 1.33$, $SE = 0.04$, $p < .001$. The interaction between CE and father’s level of education is equal to $R^2 = .4673$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0002$. Simple slopes for the association between CE and CM were tested and revealed positive for all father’s level of education values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students are one standard deviation below the mean on father’s level of education and have fathers who

attained a high school level or lower (-0.8551), $b = 1.38$, $SE = 0.056$, $p < .001$, than for students who are one standard deviation above the mean and have fathers who obtained a university diploma (0.8551 , $b = 1.29$, $SE = 0.058$, $p < .001$). Thus, the hypothesis 3.12 is not confirmed: “The relationship between CE and CM is moderated by students’ father’s level of education”.

WWK

The overall effect of father’s level of education on CM, when WWK is equal to zero, is $b = 0.061$, $SE = 0.01$, $p > .05$. The overall effect of WWK on CM, when father’s level of education is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and father’s level of education is equal to $R^2 = .2797$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0005$. Simple slopes for the association between WWK and CM were tested and revealed positive for all father’s level of education values; yet, the causal effect of WWK on CM was slightly less amplified or strengthened for students are one standard deviation below the mean on father’s level of education and have fathers who attained a high school level or lower (-0.8551), $b = 0.71$, $SE = 0.051$, $p < .001$, than for students who are one standard deviation above the mean and have fathers who obtained a university diploma (0.8551), $b = 0.61$, $SE = 0.051$, $p < .001$, than for students who have fathers who finished high school or university studies, $b = 0.71$, $SE = 0.051$, $p < .001$. Thus, the hypothesis 4.12 is not confirmed: “The relationship between WWK and CM is moderated by students’ father’s level of education”.

Mother’s level of education. On the mother level of education, the studied sample ($n = 3982$) had a mean score of $M = 2.06$, $SD = 0.81$) as shown in Table 30. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 31.

Table 30

Mean and Standard Deviation of Mean of Mother's Level of Education

	<i>n</i>	<i>M</i>	<i>SD</i>
Mother Level of Education	3982	2.06	.82

Table 31

Mean and Standard Deviation of Mean of Mother's Level of Education Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Did not finish high school			High school			University		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1207	21.24	2.92	1317	20.79	2.94	1458	20.48	3.11
Total CDM	1207	24.50	3.01	1317	24.65	2.96	1458	25.31	2.93
Total CE	1207	10.82	2.09	1317	10.88	2.06	1458	10.95	2.00
Total WWK	1207	15.57	2.45	1317	15.41	2.46	1458	15.78	2.48
Total CM	1207	72.14	5.93	1317	71.73	5.80	1458	72.53	5.81

CP

The overall effect of mother level of education on CM, when CP is equal to zero, is $b = 0.75$, $SE = 0.08$, $p < .001$. The overall effect of CP on CM, when mother level of education is equal to zero, is $b = 1.4$, $SE = 0.022$, $p < .001$. The interaction between CP and mother level of education is equal to $R^2 = .7156$ and is statistically significant $p < .001$, with a small effect size $\Delta R^2 = .0015$. Simple slopes for the association between CP and CM were tested and revealed positive for all mother's level of education values; yet, the causal effect of CP on CM was significantly more amplified or strengthened for students are one standard deviation below the mean on mother's level of education and have mothers who attained a high school level or lower (-0.8158), $b = 1.47$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and have mothers who obtained a university diploma (0.8158), $b = 1.32$, $SE = 0.03$, $p < .001$. Further analysis reveals that at the starting scores of CP for students, who have a mother who completed university studies, scored higher on CM

than students who have a mother who completed or not high school studies. Yet, at higher scores of CP all students regardless of the mother level of education scored approximately the same on CM. This would indicate that differences at the lower scores of CM would be attributed to the influence of students' mother level of education. Thus, the hypothesis 1.13 is confirmed: "The relationship between CP and CM is moderated by students' mother level of education".

CDM

The overall effect of mother level of education on CM, when CDM is equal to zero, is $b = -.035$, $SE = 0.82$, $p < .001$. The overall effect of CDM on CM, when mother level of education is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CDM and change of father's level of education is equal to $R^2 = .6982$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CDM and CM were tested and revealed positive for all mother's level of education values; yet, the causal effect of CDM on CM was slightly more amplified or strengthened for students are one standard deviation below the mean on mother's level of education and have mothers who attained a high school level or lower (-0.8158), $b = 1.39$, $SE = 0.031$, $p < .001$, than for students who one standard deviation above the mean and have mothers who obtained a university diploma (0.8158), $b = 1.36$, $SE = 0.032$, $p < .001$. Thus, the hypothesis 2.13 is not confirmed: "The relationship between CDM and CM is moderated by students' mother level of education".

CE

The overall effect of mother level of education on CM, when CE is equal to zero, is $b = 0.13$, $SE = 0.1$, $p > .05$. The overall effect of CE on CM, when mother level of education is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and mother level of education is equal to $R^2 = .4698$ and is not statistically significant $p > .05$, with a less than

small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CE and CM were tested and revealed positive for all mother's level of education values; yet, the causal effect of CE on CM was slightly more amplified or strengthened for students are one standard deviation below the mean on mother's level of education and have mothers who attained a high school level or lower (-0.8158), $b = 1.37$, $SE = 0.056$, $p < .001$, than for students who are one standard deviation above the mean and have mothers who obtained a university diploma (0.8158), $b = 1.31$, $SE = 0.058$, $p < .001$. Thus, the hypothesis 3.13 is not confirmed: "The relationship between CE and CM is moderated by students' mother level of education".

WWK

The overall effect of mother level of education on CM, when WWK is equal to zero, is $b = 0.14$, $SE = 0.11$, $p > .05$. The overall effect of WWK on CM, when mother level of education is equal to zero, is $b = 0.65$, $SE = 0.036$, $p < .001$. The interaction between WWK and mother level of education is equal to $R^2 = .2776$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = 0$. Simple slopes for the association between WWK and CM were tested and revealed positive for all mother's level of education values; yet, the causal effect of WWK on CM was slightly less amplified or strengthened for students are one standard deviation below the mean on mother's level of education and have mothers who attained a high school level or lower (-0.8158), $b = 0.63$, $SE = 0.051$, $p < .001$, than for students who are one standard deviation above the mean and have mothers who obtained a university diploma, $b = 0.68$, $SE = 0.051$, $p < .001$. Thus, the hypothesis 4.13 is confirmed: "The relationship between WWK and CM is moderated by students' mother level of education".

Household annual income. On the household annual income, the studied sample ($N = 4015$) had a mean score of $M = 3.4$, $SD = 1.79$ as shown in Table 32. The mean and

standard deviation of the mean of each category's scores on CM and its components are summarised in Table 33.

Table 32

Mean and Standard Deviation of Mean of Household Annual Income

	<i>N</i>	<i>M</i>	<i>SD</i>
Household annual income	4015	3.40	1.79

Table 33

Mean and Standard Deviation of Mean of Household Annual Income Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Less than \$5,400			Between \$5,401 - \$12,000			Between \$12,001 - \$24,000		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	653	21.28	3.19	744	21.18	2.85	932	20.89	2.94
Total CDM	653	24.69	3.09	744	24.68	2.81	932	24.78	2.85
Total CE	653	10.87	2.26	744	10.92	1.96	932	10.91	1.97
Total WWK	653	15.53	2.54	744	15.55	2.39	932	15.52	2.39
Total CM	653	72.38	6.24	744	72.33	5.53	932	72.10	5.63

CM Measure	Between \$24,001 - \$36,000			Between \$36,001 - \$48,000			Between \$48,001 - \$60,000		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	712	20.75	2.85	346	20.48	3.02	277	20.18	3.13
Total CDM	712	24.87	2.91	346	24.93	3.12	277	25.41	3.06
Total CE	712	10.84	1.96	346	10.69	2.13	277	11.28	2.04
Total WWK	712	15.58	2.50	346	15.59	2.48	277	15.74	2.38
Total CM	712	72.04	5.83	346	71.69	6.09	277	72.61	6.04

CM Measure	Above \$60,000		
	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	351	19.86	3.13
Total CDM	351	25.15	3.38
Total CE	351	10.80	2.07
Total WWK	351	15.90	2.68
Total CM	351	71.71	6.10

CP

The overall effect of household annual income on CM, when CP is equal to zero, is $b = 0.24$, $SE = 0.037$, $p < .001$. The overall effect of CP on CM, when household annual income is equal to zero, is $b = 1.4$, $SE = 0.022$, $p < .001$. The interaction between CP and household annual income is equal to $R^2 = .7127$ and is statistically significant $p < .05$, with a very small effect size $\Delta R^2 = .0005$. Simple slopes for the association between CP and CM were tested and revealed positive for all household annual income values; yet, the effect of CP on CM was significantly more amplified or strengthened for students who are one standard deviation below the mean and declaring a household annual income below \$12,000 (-1.7949), $b = 1.44$, $SE = 0.03$, $p < .001$, than for students who are one standard deviation above the mean and declaring a household annual income higher than \$24,000 (1.7949), $b = 1.35$, $SE = 0.03$, $p < .001$. Further analysis revealed that at the starting scores of CP for students, who claimed a household annual income above \$48,001, scored higher on CM than students who claimed a household annual income below \$36,001. Yet, at higher scores of CP all students regardless of their household income scored approximately the same on CM, except students who claimed a household annual income between \$48,001 and \$60,000 scored higher on CM at higher score of CP. This would indicate that differences at the lower scores of CM would be attributed to the influence of the household annual income. Thus, the hypothesis 1.14 is confirmed: “The relationship between CP and CM is moderated by students’ household annual income”.

CDM

The overall effect of household annual income on CM, when CDM is equal to zero, is $b = -0.22$, $SE = 0.037$, $p < .001$. The overall effect of CDM on CM, when household annual income is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CDM and household annual income is equal to $R^2 = .7004$ and is not statistically significant $p > .05$,

with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CDM and CM were tested and revealed positive for all household annual income values; yet, the effect of CDM on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean and declaring a household annual income below \$12,000 (-1.7949), $b = 1.38$, $SE = 0.031$, $p < .001$, than its effect for students who are one standard deviation above the mean and declaring a household annual income higher than \$24,000 (1.7949), $b = 1.37$ $SE = 0.03$, $p < .001$. Thus, the hypothesis 2.14 is not confirmed: “The relationship between CDM and CM is moderated by students’ household annual income.

CE

The overall effect of household annual income on CM, when CE is equal to zero, is $b = -0.08$, $SE = 0.046$, $p > .05$. The overall effect of CE on CM, when household annual income is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and household annual income is equal to $R^2 = .467$ and is not statistically significant $p > .05$, with a null effect size $\Delta R^2 = 0$. Simple slopes for the association between CE and CM were tested and revealed positive for all household annual income values; yet, the effect of CE on CM was slightly more amplified or strengthened for students who are one standard deviation below the mean and declaring a household annual income below \$12,000 (-1.7949), $b = 1.35$, $SE = 0.055$, $p < .001$, than its effect for students who are one standard deviation above the mean and declaring a household annual income higher than \$24,000 (1.7949), $b = 1.33$ $SE = 0.056$, $p < .001$. Thus, the hypothesis 3.14 is not confirmed: “The relationship between CE and CM is moderated by students’ household annual income”.

WWK

The overall effect of household annual income on CM, when WWK is equal to zero, is $b = -0.12$, $SE = 0.05$, $p < .05$. The overall effect of WWK on CM, when household annual income is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and

household annual income is equal to $R^2 = .2813$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0003$. Simple slopes for the association between WWK and CM were tested and revealed positive for all household annual income values; yet, the effect of WWK on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean and declaring a household annual income below \$12,000 (-1.7949), $b = 0.62$, $SE = 0.051$, $p < .001$, than its effect for students who are one standard deviation above the mean and declaring a household annual income higher than \$24,000 (1.7949), $b = 0.7$ $SE = 0.05$, $p < .001$. Thus, the hypothesis 4.14 is not confirmed: “The relationship between WWK and CM is moderated by students’ household annual income”.

Religion. On the religion, the studied sample ($N = 4015$) had a mean score of $M = 1.73$, $SD = 0.62$ shown in Table 34. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 35.

Table 34

Mean and Standard Deviation of Mean of Religion

	<i>N</i>	<i>M</i>	<i>SD</i>
Religion	4015	1.73	.62

Table 35

Mean and Standard Deviation of Mean of Religion Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Christian			Muslim			Druze		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1133	20.32	2.96	2493	21.04	3.03	282	20.73	2.93
Total CDM	1133	25.27	2.89	2493	24.63	2.97	282	24.63	3.20
Total CE	1133	10.85	2.03	2493	10.97	2.03	282	10.61	2.09
Total WWK	1133	15.66	2.60	2493	15.50	2.39	282	15.84	2.48
Total CM	1133	72.10	5.87	2493	72.14	5.85	282	71.82	5.95

CM Measure	Other		
	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	107	20.65	3.04
Total CDM	107	26.25	2.95
Total CE	107	10.23	2.32
Total WWK	107	16.47	2.55
Total CM	107	73.61	5.59

CP

The overall effect of religion on CM, when CP is equal to zero, is $b = -0.72$, $SE = 0.105$, $p < .001$. The overall effect of CP on CM, when religion is equal to zero, is $b = 1.4$, $SE = 0.022$, $p < .001$. The interaction between CP and religion is equal to $R^2 = .7127$ and is statistically significant $p < .05$, with a less than small effect size $\Delta R^2 = .0001$. Simple slopes for the association between CP and CM were tested and revealed positive for all religion values; and the effect of CP on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on religion and claimed other religion (-0.6235), $b = 1.36$, $SE = 0.031$, $p < .001$, than for students who are one standard deviation above the mean and claimed a Christian, Muslim, or Druze religion (0.6235), $b = 1.41$, $SE = 0.031$, $p < .001$. Thus, the hypothesis 1.15 is not confirmed: “The relationship between CP and CM is moderated by students’ religion”.

CDM

The overall effect of religion on CM, when CDM is equal to zero, is $b = 0.52$, $SE = 0.11$, $p < .001$. The overall effect of CDM on CM, when religion is equal to zero, is $b = 1.38$, $SE = 0.022$, $p < .001$. The interaction between CDM and religion is equal to $R^2 = .6994$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = 0$. Simple slopes for the association between CDM and CM were tested and revealed positive for all religion values; and the effect of CDM on CM was amplified or strengthened for students who are one

standard deviation below the mean on religion and claimed other religion (-0.6235), $b = 1.39$, $SE = 0.032$, $p < .001$, as much as for students who are one standard deviation above the mean and claimed a Christian, Muslim, or Druze religion (0.6235), $b = 1.36$, $SE = 0.031$, $p < .001$. Thus, the hypothesis 2.15 is not confirmed: “The relationship between CDM and CM is moderated by students’ religion”.

CE

The overall effect of religion on CM, when CE is equal to zero, is $b = -0.302$, $SE = 0.13$, $p < .05$. The overall effect of CE on CM, when religion is equal to zero, is $b = 1.34$, $SE = 0.04$, $p < .001$. The interaction between CE and religion is equal to $R^2 = .4678$ and is not statistically significant $p > .05$, with a less than small effect size $\Delta R^2 = .0003$. Simple slopes for the association between CE and CM were tested and revealed positive for all religion values; yet, the effect of CE on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on religion and claimed other religion (-0.6235), $b = 1.29$, $SE = 0.055$, $p < .001$, than for students who are one standard deviation above the mean and claimed a Christian, Muslim, or Druze religion (0.6235), $b = 1.39$, $SE = 0.056$, $p < .001$. Thus, the hypothesis 3.15 is not confirmed: “The relationship between CE and CM is moderated by students’ religion”.

WWK

The overall effect of religion on CM, when WWK is equal to zero, is $b = -0.134$, $SE = 0.14$, $p > .05$. The overall effect of WWK on CM, when religion is equal to zero, is $b = 0.66$, $SE = 0.036$, $p < .001$. The interaction between WWK and religion is equal to $R^2 = .2793$ and is not statistically significant $p > .05$. Simple slopes for the association between WWK and CM were tested and revealed positive for all religion values; yet, the effect of WWK on CM was slightly less amplified or strengthened for students who are one standard deviation below the mean on religion and claimed other religion (-0.6235), $b = 0.63$, $SE = 0.052$, $p < .001$,

than for students who are one standard deviation above the mean and claimed a Christian, Muslim, or Druze religion (0.6235), $b = 0.69$, $SE = 0.049$, $p < .001$. Thus, the hypothesis 4.15 is not confirmed: “The relationship between WWK and CM is moderated by students’ religion”.

Wasta (Influence). On the wasta (influence), the studied sample ($N = 4015$) had a mean score of $M = 1.9$, $SD = 0.84$ as shown in Table 36. The mean and standard deviation of the mean of each category’s scores on CM and its components are summarised in Table 37.

Table 36

Mean and Standard Deviation of Mean of Wasta (Influence)

	<i>N</i>	<i>M</i>	<i>SD</i>
Wasta (Influence)	4015	1.90	.84

Table 37

Mean and Standard Deviation of Mean of Wasta (Influence) Subscales on CP, CDM, CE, WWK, and CM

CM Measure	Strongly Disagree			Disagree			Agree		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	213	20.92	3.82	614	20.77	3.10	1751	20.73	2.67
Total CDM	213	24.93	3.72	614	24.19	2.96	1751	24.69	2.81
Total CE	213	11.47	2.35	614	11.32	1.96	1751	10.97	1.87
Total WWK	213	12.18	2.69	614	13.68	2.15	1751	15.47	1.85
Total CM	213	69.51	7.33	614	69.95	5.76	1751	71.85	5.22

CM Measure	Strongly Agree		
	<i>n</i>	<i>M</i>	<i>SD</i>
Total CP	1437	20.91	3.24
Total CDM	1437	25.33	3.01
Total CE	1437	10.52	2.17
Total WWK	1437	17.07	2.08
Total CM	1437	73.83	5.89

CP

The overall effect of *wasta* (influence) on CM, when CP is equal to zero, is $b = -1.65$, $SE = 0.073$, $p < .001$. The overall effect of CP on CM, when *wasta* (influence) is equal to zero, is $b = 1.37$, $SE = 0.02$, $p < .001$. The interaction between CP and *wasta* (influence) is equal to $R^2 = .7479$ and is statistically significant $p < .05$, with a very small effect size $\Delta R^2 = .0010$. Simple slopes for the association between CP and CM were tested and revealed positive for all *wasta* (influence) values; yet, the effect of CP on CM was significantly more amplified or strengthened for students who are one standard deviation above the mean on *wasta* (influence) (0.8447), $b = 1.42$, $SE = 0.027$, $p < .001$, than its effect for students who are one standard deviation below the mean (-0.8447), $b = 1.32$, $SE = 0.028$, $p < .001$. Furthermore, at all levels of CP, the less the students rely on *wasta* (influence) for career decision making, the higher they score on CM and vice versa. Thus, the hypothesis 1.16 is confirmed: “The relationship between CP and CM is moderated by students’ dependency on *wasta* (influence)”.

CDM

The overall effect of *wasta* (influence) on CM, when CDM is equal to zero, is $b = -1.22$, $SE = 0.077$, $p < .001$. The overall effect of CDM on CM, when *wasta* (influence) is equal to zero, is $b = 1.33$, $SE = 0.022$, $p < .001$. The interaction between CDM and *wasta* (influence) is equal to $R^2 = .7196$ and is statistically significant $p < .05$, with a small effect size $\Delta R^2 = .0012$. Simple slopes for the association between CDM and CM were tested and revealed positive for all *wasta* (influence) values; yet, the effect of CDM on CM was significantly more amplified or strengthened for students who are one standard deviation above the mean on *wasta* (influence) (0.8447), $b = 1.39$, $SE = 0.029$, $p < .001$, than its effect for students who are one standard deviation below the mean (-0.8447), $b = 1.27$, $SE = 0.03$, $p < .001$. Furthermore, at all levels of CDM, the less the students rely on *wasta* (influence) for

career decision making, the higher they score on CM and vice versa. Thus, the hypothesis 2.16 is confirmed: “The relationship between CDM and CM is moderated by students’ dependency on wasta (influence)”.

CE

The overall effect of wasta (influence) on CM, when CE is equal to zero, is $b = -2.27$, $SE = 0.091$, $p < .001$. The overall effect of CE on CM, when wasta (influence) is equal to zero, is $b = 1.48$, $SE = 0.038$, $p < .001$. The interaction between CE and wasta (influence) is equal to $R^2 = .5685$ and is statistically significant $p < .05$, with a very small effect size $\Delta R^2 = .0038$. Simple slopes for the association between CE and CM were tested and revealed positive for all wasta (influence) values; yet, the effect of CE on CM was significantly more amplified or strengthened for students who are one standard deviation above the mean on wasta (influence) (0.8447), $b = 1.64$, $SE = 0.052$, $p < .001$, than its effect for students who are one standard deviation below the mean (-0.8447), $b = 1.32$, $SE = 0.05$, $p < .001$. Furthermore, at all levels of CE, the less the students rely on wasta (influence) for career decision making, the higher they score on CM and vice versa. It must be noted that students who strongly believe that they should choose their career based on their PR and connections, exhibited high CM at higher score on CE. Thus, the hypothesis 3.16 is confirmed: “The relationship between CE and CM is moderated by students’ dependency on wasta (influence)”.

WWK

The overall effect of wasta (influence) on CM, when WWK is equal to zero, is -1.1 , $SE = 0.13$, $p < .001$. The overall effect of WWK on CM, when wasta (influence) is equal to zero, is $b = 0.51$, $SE = 0.034$, $p < .001$. The interaction between WWK and wasta (influence) is equal to $R^2 = .3129$ and is statistically significant $p < .05$, with a very small effect size $\Delta R^2 = .0089$. Simple slopes for the association between WWK and CM were tested and revealed positive for all wasta (influence) values expect for Strongly Agree value; yet, the effect of

WWK on CM was significantly less amplified or strengthened for students who are one standard deviation above the mean on wasta (influence) (0.8447), $b = 0.31$, $SE = 0.052$, $p < .001$, than its effect for students who are one standard deviation below the mean (-0.8447), $b = 0.7$, $SE = 0.055$, $p < .001$. Furthermore, at all levels of WWK, the less the students rely on wasta (influence) for career decision making, the higher they score on CM and vice versa. It must be noted that students who strongly believe that they should choose their career based on their PR and connections, exhibited a decrease of CM when WWK was increasing. Thus, the hypothesis 4.16 is confirmed: “The relationship between WWK and CM is moderated by students’ dependency on wasta (influence)”.

Discussion

Instrument. This study had two main objectives. The first, was to examine the validity of the CRM questionnaire and to analyse the effect of the socio-economic factors on the relationship between CM components and the construct of CM itself. In the context of the present study, CP, CE, CDM, and WWK were considered to be the major scales of the CRM questionnaire.

To start, the construct validity of the CRM was relatively confirmed by this study. Indeed, splitting the questionnaire sample into two sub-samples, which had approximately an equal share of participants, showed that the factor structure was statistically well replicated. Compared to the emergent assessment tools of CM found in the literature, results from (Thompson et al., 1981) research provided further support for the structure identified in this study. As a matter of fact, their research purpose was to assess the validity of the Career Development Inventory, which consists of two parts. The first part contains four scales that measure the same four important aspects of CM used within this study (E. M. Levinson et al., 1998). However, the second part was dedicated to the measure of professional occupational

group, which was not being assessed by the CDI (Thompson et al., 1981). Findings from this study questioned the appropriateness and stability of the CM construct of Super (1983) in the present century and within the cultural context of the present study (F. W. Vondracek & Reitzle, 1998). The career development stage model that underlies the CM construct was found inappropriate to encompass the world of work changes (F. W. Vondracek & Reitzle, 1998). Therefore, predicting universal transitions between stages appears inapplicable nowadays. Furthermore, measurements of CM developed in western country revealed to be inconsistent when used in other cultural contexts (M. B. Watson, 2008). Many research found in the literature showed a high interest in examining the correlations between CM and contextual factors (W. Patton & Lokan, 2001). Findings from these studies criticised the CDI for its scales' reliability, stability, and universal meanings (Hackett & Watkins, 1995). Thus, integrating the context into the career development of individuals would be useful when predicting their CR (Savickas, 1995). Consequently, the researcher attempted to develop an instrument to measure students' CR within the Lebanese contexts. The instruments structure was inspired from the Super's theory on career development (1983); yet, scales for each component of CM were accommodated in a way that suits the Lebanese cultural contexts. Finally, integrating the interaction between CM components and socio-economic factors in the instrument have been worked largely by the researcher in order to take into consideration the alteration effect rather than the correlation one of this interaction on individuals' readiness to make a career choice. The developed instrument consisted of a questionnaire with two sections. The first one involved CM scales and the second one encompassed socio-economic variables.

With regard to the first section, a closer investigation of the questionnaire content at item level was conducted to discover probable reasons why these variables loaded onto one construct. CP construct which deals with autonomy, time perspective, and self-esteem (Super,

1983) is described using the verb “to plan”, indicating an attitude towards being able to make career and/or educational choices, and a disposition to prepare for career decision making. CDM variables included a common verb which is “decide” or a synonym of this verb such as “agree” or “want”. This competency refers to the individual’s ability to apply the principles of CDM with respect of individual’s educational and/or career choices (Glavin & Rehfuß, 2005). CE is characterised with terms such as “discuss and take into consideration”, showing an attitude toward asking questions within the institution the student feels affiliate with and a willingness or not to use the resources provided by these institutions (Super, 1983). The factor analysis revealed that institutions in the Lebanese context are referred to as parents/relatives and friends. Finally, the WWK component is referred to the terms that bear “additional information on the earnings, the suitability of the job” and others. This information would help individuals in their career decision making (Super, 1983). The communality of these four components with the definition of Super (1955) of CM components would be taken as a proof of the discriminant validity of the CRM.

Evidence was also provided with respect of the convergent validity of the questionnaire. Factor analysis of the questionnaire at a higher level of the constructs was needed to provide further confirmation of the suitability of CRM to measure only one construct, which is the CM.

Finally, the criterion validity of the questionnaire was interpreted using a linear regression which revealed a high correlation between each of the CM components and the construct of CM itself and a relative low correlation between each component and the other components of CM. It validated as well a prediction of CM from each individual’s score on CP, CE, CDM and WWK scales. Results from the regression model showed that the level of CM significantly increased as the level of students’ CP, CE, CDM, and/or WWK is/are strengthened. These results were found corroborative of Thompson, Lindeman, Super,

Jordan, & Myers' (1981) 40 years of research findings confirming the measure of CM by four subtests, career planning, career exploration, decision-making, and world of work information (E. M. Levinson et al., 1998). E. M. Levinson *et al.* (1998) concluded from their review that the CDI "may be particularly useful for assessing readiness" (p. 478) in order to make career decision making.

Moderation. Reviewing the results of the moderation analysis indicated only partial support for the hypothesis previously formulated. The impact of socio-economic factors on the relationship between CM and its components was not found to be consistent over all factors. To elucidate, if one socio-economic factor moderated the relationship between CP and CM for instance, this did not stipulate that the same factor will have the similar moderation effect on the relationship between CDM and CM. The following is a summary of each socio-economic factor moderation impact on the relationship between CM and its components.

Gender. While gender does not significantly moderate the effect of CP, CDM, CE, and WWK on CM, additional analysis showed that being female and having higher CDM predicted higher CM. The review of the literature indicated that findings on the impact of gender differences on CM were found to be equivocal and inconsistent (Herr & Cramer, 1984). Similar to the majority of studies, results from the current study indicated that females have a higher maturity level than males (Luzzo, 1995; Westbrook, 1984). Others, such as Watson, Stead and De Jager (1995) reported similar results. Differences of CDM found in this study were consistent with Gupta's (1987) findings, and the absence of significant differences in CP and CM were similar to Fouad's (1988) results. As a conclusion, the causal patterns were similar for male and female students; there were no significant moderation effects of gender on the relationship between CM and its components. Yet, females showed a

very small and possibly not statistically significant stronger relationship between CDM and CM.

Age (year of birth). Results from the moderation effect of age (year of birth) on the relationship between CM and every components of CM excluding the CE, showed no significant moderation effect for all age groups, nor within these groups, indicating that age was only a statistically significant predictor of the relationship between CE and CM. Analyses reported in this study indicated that this association was stronger for individuals under 24 years old. A causal inference cannot be made from this study because it is not experimental nor longitudinal, but results seem to suggest that the younger the individuals are the less they are influenced by the idea of finding a secured job at the price of their personal interest. Research within this field pointed out that age did not appear to be related to CM, but, the idea of being unemployed would impact negatively students' career decision making (Super & Kidd, 1979) and drive them to choose careers which allow them to cope with the existing political instability and conflict. The interaction between employment and CE need further investigation.

University type. Within this study, an analysis was performed to assess whether university type interacts with CM components to predict CM. Results showed that the predicted CM from CP, CDM, or WWK for public university students was significantly higher than the predicted CM for private university students. However, information about the mean explained that, on average, private university students scored higher than public university students on CM. Additional analysis indicated that CE of private university students was found to be better than public university students. All the above would mean that private university students show higher CM than public university students because of their attitude toward CE which, appears to be better. Based on the literature, no findings were

found regarding the effect of university type on CM. Yet, it would be suggested that these differences are due essentially to the role of the institutional system in influencing the students' career decisions making (Gottfredson, 1981; Osipow, 1973). Therefore, the differences of CM prediction from CP, CDM, and WWK need further investigation to check whether this increase was due to better services in the private universities or to personal development initiatives.

Level of degree. The analysis of the moderation effect of level of degree yielded a significant effect only on CE when predicting CM. The statistically significant interaction between level of degree and CE indicated that the association between CE and CM was the strongest at the bachelor level and the weakest at masters' level. Further analysis demonstrated that the level of degree, CDM, WWK were statistically significant predictors of CM; indicating that being a bachelor student and having higher scores on CDM and/or WWK predicted higher CM. Seemingly CE, CDM, and WWK matter more for bachelor students; perhaps their effect show up more when students are attempting to start new university studies. Research focusing on the level of degree differences in CM was not found consistent with the current study's findings. In fact, studies showed a uniform positive impact of the level of the degree on CM (Crites, 1965; Tilden, 1978). To interpret the aforementioned, one assumption could be made. Masters' students would perceive themselves as ready to make career decisions; thus, they wouldn't indulge themselves in CE, CDM, or WWK actions. Conversely, bachelor students appear to be more involved in the CM process. The reason behind being more mature and ready to make career decisions would be related to personal efforts, guidance from career professionals, or to educational system that request from students to make grade-related career decisions (Gottfredson, 1981). However, in case the individual relies on the existing career services to make career choices, it must be noted that

the above differences are not reasonably high to report a massive improvement in CG services in Lebanon. This assumption needs further investigation and validation.

Change of major frequency. Evaluation of whether change of major would affect the prediction of CM from its components did not reveal any significant effect. Further digging into these findings showed that the moderation effect of change of major frequency on CE or WWK when predicting CM is confirmed. When the frequency of change of major increased the prediction of CM from CE was higher. For instance, the prediction of CM from CE was much higher for students who have changed their majors more than 5 times, than students who have changed their majors one time. To elucidate from the literature, Jones and Chenery (1980) argued that career indecision has been found to be related to work salience, where the latter is defined as the product and interaction of personal and situational factors (Super, 1990), which might stimulate CE (Blustein, 1988). Thus, students who experienced some career transition during their lives demonstrated a higher level of exploration. In addition, Sultana and Watts (2008) claimed from their research in the Middle East region that the notion of choice is actually bounded by family circumstances and expectations. Also, the directiveness exhibited by the students' families would undermine as well any individual career aspirations.

With respect to WWK, the more students who changed their major 1, 2 or 3 times are knowledgeable about the world of work, the more they appear ready to make career decisions. Conversely, students who changed their major 4 times or more showed a decrease of the prediction of CM from WWK. It would be possible that individuals who experienced a repetitive career indecision accumulated a broad fund of information to support their career decision making, resulting in scoring high on WWK. A low score on CM when WWK is high could be explained by dismissing CP, CDM, and/or CE actions due to a personal belief that, with experience, individuals develop career decision making skills which allow them to make

decisions without following the same steps when choosing careers for the first time. Moreover, Super (1990) claimed that the frequency or the number of trials would be dependent on the individuals' socio-economic status and the available work opportunities they have. Hence, an investigation of the socio-economic status and the *wasta* (influence) variables would provide further robust evidence.

Socio-economic status. As previously stated in the literature chapter, the socio-economic status is measured through the analysis of income, education, and occupation (National Center for Educational Statistics, 2008). This factor has been identified as one of the most robust predictors of individuals' career interests and achievements (F. W. Vondracek, Lerner, & Schulenberg, 1986). Results from this study showed that the parental level of education and household annual income had the same influence on the prediction of CM from its components. This is consistent with social and cultural differences where individuals get married with partners who have the same educational and social level. Findings reveal that only the prediction of CM from CP increases with higher parental level of education and higher annual income. The starting score of CM were higher for university parental level of education than high school and lower parental level of education. This would indicate that students who have a low tendency for CP might be influenced by their parents' level of awareness and/or beliefs in national aspirations or ideals. Yet, those who show a high score on CP tend to be independent from their parents when making career choices. With respect of the household annual income, the increase of the prediction of CM from CP appeared to be higher for students who claimed a high household annual income. In addition, an investigation of the different range of income means indicated that the highest scores on CM is attributed to students who had a high annual income ranging between \$48,001 and \$60,000. It must be noted that students who stated a household annual income above \$60,000 showed lower score on CM at higher scores on CP. This can be explained by the expected

commitment from students to their family business (Sultana & Watts, 2008), which might shift students' career choices from what is interesting to them to what is expected from them in terms of family's responsibilities. This suggestion needs further investigation to confirm its validity.

Wasta (Influence). In this study, the researcher intended to collect data from university students only; thus, participants' occupations cannot be considered as a factor. Yet, wasta (influence) factor was considered to reflect on available work opportunities secured by the individuals and their families' connections. Nasser and Abouchédid (2006) found that informal individual and family's connections can play a major factor in the increase of opportunities for employment. Hence, some students would believe that their family connections would secure them a job, and consequently they restrain themselves from taking personal career decisions (Sultana & Watts, 2008). Dependence on wasta (influence) did differ significantly in predicting CM from CP, CDM, and CE. The stronger the dependency on wasta (influence) is, the lower is the prediction of CM from these components. In addition, the more the individuals believed in wasta (influence), the less they appeared ready to make career decisions. Indeed, the lowest and the highest scores of CM were higher for individuals who did not base their career choices on wasta (influence) than those who did. This indicates that students who are aware of their career aspirations and interests appeared to be more ready to make career choices than those who relied more on wasta (influence). Moreover, the prediction of CM from WWK was greater for individuals who did not believe in wasta (influence) than for those who believed in wasta (influence). Results showed that CM increases when WWK decreases and vice versa for individuals who tend to choose their career based on wasta (influence). This would indicate that some individuals, even though acknowledging the need to choose the desired career, appear to be ready to choose their careers based on their connections rather than on personal planning and exploration

initiatives. This orientation tends to be relevant to cultural factors which are common in the Arabic societies (Hofstede, 2001). Findings from this study demonstrated that even though students are more aware about their career aspiration, they are still having an inclination toward *wasta* (influence) and connections. Further studies are needed to elaborate more on this point.

Religion. Theorists in literature such as Hotchkiss and Borow (1990) suggested that individuals' career choice might be influenced by their locus of control. Indeed, individuals who have high internal locus of control are expected to be more mature (Gardner, 1981). Sultana and Watts (2008) found from their exploration study that people from the Mediterranean region displayed a high degree of external locus of control and tended to shape their career paths based on their religion and what was destined for them. However, results focusing on religion differences in the relationship between CM and its components have been uniformly non-significant, indicating that the moderation effect of religion does not impact the prediction of CM from its components. To conclude, findings from this study appear to contradict those of Sultana and Watts (2004) and show that the effect of CM components on CM is not altered by individuals' beliefs or religion.

Other factors (region of origin, place of residency, and university region).

Region of origin, place of residency, and university region, did not moderate significantly the prediction of CM from its components. These factors were added based on the researcher's beliefs and observations from the cultural differences between different Lebanese regions. No robust findings with respect of these factors were found in the literature.

Table 38

Summary of Moderators Impact on the Relationship of Each of CP, CDM, CE, and WWK on CM

	CP			DM			WW			CE		
	Sig	+/-	Dir	Sig	+/-	Dir	Sig	+/-	Dir	Sig	+/-	Dir
Gender	No	+	↗	No	+	↗	No	+	↗	No	+	↗
Age (year of birth)	No	+	↗	No	+	↗	No	+	↗	Yes	+	↗
Region of Origin	No	+	↘	No	+	↘	No	+	↘	No	+	↗
Place of Residency	No	+	↗	No	+	↘	No	+	↘	No	+	↗
Year of Graduation	No	+	↗	No	+	↗	Yes	+	↗	Yes	+	↗
University Name	Yes	+	↗	Yes	+	↗	Yes	+	↗	No	+	↗
University Type	Yes	+	↗	Yes	+	↗	Yes	+	↗	No	+	↗
University Region	No	+	↗	No	+	↗	No	+	↗	No	+	↗
Level of Degree	No	+	↘	No	+	↘	No	+	↘	Yes	+	↘
Change of Major	No	+	↗	No	+	↗	No	+	↗	No	+	↘
Change of Major Frequency	No	+	↘	No	+	↗	Yes	+	↘	Yes	+	↗
Father's Level of Education	Yes	+	↘	No	+	↘	No	+	↘	No	+	↗
Mother Level of Education	Yes	+	↘	No	+	↘	No	+	↘	No	+	↗
Household annual income	Yes	+	↘	No	+	↘	No	+	↘	No	+	↗
Religion	No	+	↗	No	+	↘	No	+	↗	No	+	↘
Wasta (Influence)	Yes	+	↗	Yes	+	↗	Yes	+	↗	Yes	+	↘

Note. Sig = Significance of impact of moderators on each of CP, CDM, CE, and WWK on CM; + = Positive association between each of CM components and CM; - = Negative association between each of CM components and CM; ↗ = Effect of moderator on the relationship between each of CM component and CM is increasing increase from minus 1 standard deviation to 1 standard deviation of the moderator value; ↘ = Effect of moderator on the relationship between each of CM component and CM is decreasing increase from minus 1 standard deviation to 1 standard deviation of the moderator value

Chapter 4

Qualitative Study: Q Method

Overview

This chapter explains the procedure for Q factor statistical data analysis, discusses and interprets the results of the qualitative study.

Q method is a method that enables the researcher to conduct a systematic study on a specific topic to investigate the subjectivity and the communicability of subjective perceptions. It requires a central focus on individuals' perceptions and opinions as an integral part of its procedures.

Instrument

The researcher used the Q method. Thirty statements were created from both the literature and three interviews. In addition, a translation from English to French and Arabic was available to participants. Detailed instructions were drafted to guide the participants through the completion of the Q grid. Personal/demographic information was collected. A nine-point distribution ranging from -4 to +4 was used for a Q set of 30 items.

Procedure

This section will present the case for the Q-method as a phenomenological research method used to explore subjective accounts of CR phenomena in Lebanon from career professionals' perspectives, which attempts to identify broad dimensions and common beliefs and experiences to address the status of CG services in Lebanon.

Identifying a concourse on the topic of interest. The first step is considered to be the most critical one where a 'communication of subjectivity' occurs in order to collect different 'vantage points' on a specific topic (Thorsen, 2006). The communication of different

aspects of CG in Lebanon constituted the concourse used within this study. This concourse represents the role of career professionals in Lebanon and consists of a variety of statements expressing viewpoints about what career professionals do and how they work, the current status of CG services in Lebanon, and the contribution and role of policy-makers in defining standards for best practices in these field and monitoring their applications in the current context. Participants in the study had a wide range of different experiences (Hove, 2002) and their perceptions of CG services in Lebanon composed the concourse used in this study. McKeown & Thomas (1988) cautioned against using an unstructured sampling since the latter may lead to the selection of over or underrepresented Q-sample items. Hence, the Q-sample items of this study were selected based on existing theory in literature and inductively from an analysis of unstructured interviews and previous research done within this field (Weber, Danielson, & Tuler, 2009). The researcher during the interviews asked umbrella questions allowing the interviewees to provide answers rich in qualitative nuances (Donner, 2001). Statements from the concourse were developed from secondary sources such as academic literature (W. Stainton Rogers, 1991) and items from a previous informative study done in 2011 in Lebanon, which explored CG services status from Lebanese students' perspective (McLeod, 1993).

Developing a representative set of statements (Q sample). The researcher attempted to select the statements from the three aforementioned sources based on the holistic pattern of the Q sort rather than the statements themselves (Eden, Donaldson, & Walker, 2005). The number of statements in a Q sort has been disputed in the literature (Simons, 2013). Brown (1993) argued that the overall selected statements must be representative of the larger process being modelled. However, Watts and Stenner (2005) stated that a Q set can never be complete and that there will always be something new to add about any topic. All statements were sorted in categories and sub-categories to ensure that all aspects of the

qualitative study research question were covered within this method (Coogan & Herrington, 2011). During this step, the researcher attempted to reduce the number of statements while taking into consideration the studied topic and participants' capacities (Stephenson, 1953). Some of the career professionals' answers from the interviews and students' statements from previous research were repetitive and some others were too specific and needed to be paraphrased and reformulated. Large batch of statements (63 statements) was generated to ensure that all relevant grounds have been identified within these statements. To reduce duplications and to ensure that all statements were clear and concise, the researcher conducted a pilot study (S. Watts & Stenner, 2012) using one expert in the Q methodology and three Lebanese career professionals. Afterwards, some statements were refined and others were reduced through an ongoing piloting process. Based on the expert's suggestions, statements were categorised into positive, negative, and neutral attitude towards the content of statements. A total of 30 statements were developed to represent the concourse for career professionals' viewpoints of the research question. Each statement was numbered and written on a separate card to be used during the sorting task.

Specifying the respondents for the study (P-set) and conditions of instruction. P-set is defined as the number of participants that participated to the Q sorting. Brown (1995) suggested that a P-set of 40 to 60 individuals is considered adequate to answer a research question. Yet, this set of representation of different viewpoints about the studied topic is of greater importance than the proportion of individuals with specific beliefs and experiences (S. R. Brown, 1995).

In the current study, the researcher aimed to demonstrate a wider range of viewpoints, which required more participants. Thus, a total of 230 career professionals were invited using multiple medium of communication (phone calls, e-mail, text messages) to participate in the Q sorting. The researcher scheduled a day to conduct the Q sorting with the invited career

professionals. Fifty of them confirmed their attendance and only 15 actually attended this session. Thus, the researcher contacted those who did not attend and went to their premises in order to conduct the Q sorting. The choice of participants was based on the different types of educational institutions (schools and universities, public/private) and of organisations that employs career professionals in order to make sure that the collected viewpoints are from a variety of perspectives and are more or less representative of the P-set in question.

During this step, the researcher defined the instruction to be given to participants during the Q sorting session. A PowerPoint presentation was prepared which included a video with verbal communication that showed step-by-step instructions on how to proceed with the Q sorting. This presentation elucidated how participants are supposed to compare and rate Q-sample statements with respect to the extent to which they agree or disagree with them (M. McKeown, Stowell-Smith, & Foley, 1999).

Administering the Q sort (rank ordering of statements). The fourth step of Q method is represented by the Q sorting procedure. The distribution of statements was quasi-normal where a small number of items must be placed in the extreme ends of the distribution representing strongly agreed and disagreed viewpoints, while the majority of these items must be placed more towards the centre of the distribution (S. Watts & Stenner, 2005). A response grid to record participants' answers was designed (Cross, 2005). The number of spaces in this grid corresponded to the number of written statements (see Appendix Q). The grid scale ranged from -4 to +4 where +4 represented the item that the participant most agreed with, and -4 represented the item that the participant most disagreed with (see Appendix R). This method, based on Brown (1980), defines a scalability of most intense expression of the written statement to most intense expression of reversed expression. Furthermore, a forced distribution was used during this study. This distribution forces participants to distribute different statements in a pre-defined grid. This distribution was

adopted for the simple reason that it helps the participant distinguish nuances between different statements.

During the administration, the participants were told that there is no right or wrong way to do the sorting and that each statement can actually be understood and perceived in a different way by different individuals (Stephenson, 1961). In addition, participants were asked to provide demographic data (see Appendix S).

Post-sorting information and interviewing. To bring further richness and detailed understanding to the Q study results, the researcher decided to conduct a post-sorting information step. Giving the time constraints and schedules of the CG professionals who participated in the Q study, follow-up interviews were not possible to conduct by the researcher. To attempt to overcome this issue, Gallagher and Porock (2010) stated that even though interviews would bring an increased quality to the data, gathering information paper would meet the goal of this phase. Thus, the researcher decided to send an online questionnaire (CG Professionals 2013). Based on the researcher discussions with professionals on the day of data collection for the Q study, she decided to proactively collect in writing what has been deliberated on that day in order to support the overall findings of the current research. Other professionals than those who attended the Q study event day were invited to participate as well to this complementary study. The total number of respondents was equal to 41, where only 38 fully completed the questionnaire and represented professionals from major schools and universities in Lebanon.

This step seemed advantageous in order to understand widely participants' understanding about the study topic. This post-qualitative study was divided into two parts (see Appendix T). The first one involved the same statements used within the Q study, where the participants were asked to rate on a 4 point Likert scale the degree to which they agreed with each statement (1= strongly disagree, 4= strongly agree). By doing so the researcher

allowed them to specify the ranking that they would allocate to items without being forced to assign a specific value to each item. Therefore, the probability of omitting an important variable from the Q set would be decreased. The second part involved open-ended questions and a comment section, which added narrative data to overall interpretation of the research findings. The most important function of this study is to compare what is calculated and to some extent reflect what is happening on the scene of CG and participants intuition depicted from a projective research technique (Stephenson, 1952).

Participants

The qualitative study gathered data from 41 individuals who deliver career services in:

- 17 private universities;
- 16 private schools;
- 4 private organisations;
- 1 private school and public university;
- 1 private school and private organisation;
- 1 private university and private organisation;
- 1 public university, private organisation and private university

It must be noted that public schools do not provide CG services due to a lack of resources (Abdul Ghani, 2006).

Data Analysis

Factor analysis and interpretation. The last step consists of analysing and interpreting the Q sorting outcomes and findings. This study used the PQMethod software to conduct this step. The researcher entered into the software each of the participants' answers

and a by-person analysis was employed (S. Watts & Stenner, 2005) to determine differences and similarities in opinions. The variations in many viewpoints are explained by the creation of a few variables (Weber et al., 2009). This first phase of this step is to conduct the correlations matrix of the participants' Q-sorts (M. Brown, 2004). Once the correlation is executed, a centroid factor analysis was used to categorise participants who sorted the Q-sample similarly. During this factor analysis, a Varimax rotation was employed in order to maximise statistical differences (B. McKeown & Thomas, 1988). It has been argued that centroid extractions factor analysis with Varimax rotations provide an indeterminate number of rotated solutions and allow the researcher to make decisions from more appropriate theoretical perspectives, as opposed to mathematical ones (S. Watts & Stenner, 2005).

Findings. As already discussed, each data set was subjected to the same statistical procedure in terms of factor extraction and rotation. After the factor extraction, a number of loadings representing the extent to which each Q sort is correlated with each factor extracted (S. R. Brown, 1991; Comrey, 1973) were generated. The number of factor to extract depends on the study of variance (B. McKeown & Thomas, 1988). In fact, these Q sorts might be assembled in an infinite number of ways reflecting different viewpoints; thus, the number of factors to extract will depend on a range of statistical and theoretical principles. Upon the conducted factor analysis, factors with an eigenvalue value < 1 will be excluded (S. R. Brown, 1980) from the complete matrix, which represents the full meaning and variability within the data. In addition, each factor must have at least two Q sorts loading on it alone (S. Watts & Stenner, 2005). Factors that will be taken into account by the rotation method must have a significance level equal to or greater than the value of two standard deviations from the mean. Since the Q sample included a small number of statements, which will increase the significance level of Q sorts (Stricklin & Almeida, 2001), the level of significance was increased to .4. The latter will maximise the number of Q sorts loading upon one factor (B.

McKeown & Thomas, 1988). Q sorts which do not load significantly on any factor will be considered as idiosyncratic and will be removed from the Q factor analysis results (Schmolck, 2002). Moreover, the combination of all extracted factors must capture at least 40% of the study variance (S. Watts & Stenner, 2005).

Based on the aforementioned, a varimax rotation factor analysis helped determine the best solution for the number of factors to extract. A matrix of 5, 6, and 7 factors were analysed and compared. The matrix of 7 factors did not include a high number of significant Q sorts, the matrix of 6 factors presented Q sorts with low loading values, and the matrix of 5 factors showed robust results respecting the earlier highlighted criteria.

Career guidance professionals' data. Five factors were retained and interpreted within the CG Professionals data, which, combined, explained 54% of the study variance. As shown in Appendix U, all participants Q sort correlated with the emerging factors; yet, only 30 of the 41 participants loaded significantly on one of the five factors.

Since a large P-Set would lead to biased results (S. R. Brown, 1995), it was crucial to investigate whether all extracted factors are significant or not using a simple mathematical calculation showing the variance value of each factor. This value must be > 1 to be considered statistically significant. All factors were significant and had a value of 6.56 for factor 1, 4.10 for factor 2, 4, and 5, and 3.28 for factor 3.

Furthermore, to ensure that the Q sample reflected a list of distinguishing statements, Watts & Stenner (2012) argued that the greater the correlation between factors, the fewer distinctions there will be between the statements. Thus, a correlation study was carried out to check whether all factors are highly correlated or no. Results, shown in Table 39, show that all factors appeared to be positively correlated, with a coefficient that varies between .30 and .69 demonstrating that the correlation between factors varies between low and moderate

correlation. Factor 3 appears to be the least dependent of other factors and factor 1 the most dependent one.

Table 39

Correlation Matrix Between Sorts

Factors	1	2	3	4	5
1	1.00	.40	.30	.59	.69
2	.40	1.00	.40	.34	.25
3	.30	.40	1.00	.23	.34
4	.59	.34	.23	1.00	.42
5	.69	.25	.34	.42	1.00

Note. For all scales, lower scores are indicative of a more distinctive factor and independent from other factors. 1 = I Use my Knowledge to Assist Students in their Career Choices, 2 = I Use my Structured Approach to Assist Students in their Educational Choices, 3 = I Need Governmental Interventions to Help Me Assist Students in their Career & Educational Choices, 4 = My Qualifications Are Only Needed to Assist Students in their Career & Educational Choices, 5 = Loving my Job Help me in Assisting Students in their Career and Educational Choices

Factors Interpretation

This section incorporates the interpretation of the Q sorts pattern provided by the factor extraction and rotation, as well any qualitative data gathered through the study. A qualitative description of each factor will be presented and captured, and an overall title for the factor will be presented as well. In order to deliver a genuinely holistic factor interpretation derived from a consistent analysis in the context of each and every factor, a crib sheet system was used (S. Watts & Stenner, 2012). The crib sheet is a template that includes all needed information in an organised manner that will simplify the interpretation of each factor array and make sure all Q sorts are not missed or overlooked. Using this rigorous procedure allowed the researcher to elucidate each factor in a systematic way, providing a description and explanation of distinguishing statements and consensus statements. In fact, according to the number of statements, which received significantly different normalised scores from those received in other factors; the number of distinguishing statements will be specified and different for each factor (S. R. Brown, 1980). However, consensus statements

are statements which did not show any significant difference between factors (S. R. Brown, 1997). These statements will probably receive the same score by all segments of participants; therefore, it will not distinguish one factor from the other. Yet, as argued by Watts and Stenner (2012) each and every single item provides information, which must be investigated by the researcher.

A thorough crib sheet for each factor is presented in Appendix V and a complete factor array for each factor is presented in Table 40.

Table 40

Factor Q-Sort Values for Each Statement

No	Statement	1	2	3	4	5
1	I do not use assessment tools in my work with students	-2	0	-2	1	-3
2	It is hard to assist students in investigating work opportunities	-2	0	-1	2	-1
3	The majority of students do not know how to evaluate their options	-1	1	3	1	-1
4	Students do not believe in the benefits of career guidance services	-1	-1	0	0	0
5	I feel that students are not well informed about career guidance	0	1	2	0	-1
6	Access to labour trends and market statistics is limited	1	4	0	-1	0
7	The majority of the students who seek career guidance hesitate to take career related decisions	-1	1	1	-1	1
8	I think that students are not interested in career guidance services	-3	0	-1	-2	-2
9	It is not necessary to coordinate with government on the delivery of career guidance services	0	0	-4	0	-2
10	I usually help students to make educational choices	0	3	2	3	2
11	I enjoy assisting students to understand themselves	2	3	1	2	4
12	It is beneficial for a student to have career portfolios	1	2	1	1	0
13	I think that I have the required qualifications to practise career guidance	2	1	-1	4	1
14	I think that career guidance is fundamental for all students	4	2	3	0	3
15	Career guidance national guidelines are very important for my job	1	1	0	-3	1
16	Most of the students that I meet are aware of how to plan their career	-1	-3	-3	-2	1
17	Students think that career guidance at the university/school is efficient	0	0	2	-1	2
18	I am confident about the positive impact of my career guidance interventions	3	2	-1	3	2
19	Coordinating with employers and training providers is important in my job	3	-1	0	2	0
20	I only assist students who seek career guidance advice	-1	2	-2	-3	-4
21	The most frequent service that I provide to students is career information	1	-1	-1	-1	1
22	Organizing sessions that focus on job skills and personal development is part of my job	2	-2	0	2	2
23	I invite professionals from different sectors to talk about their profession	2	-2	1	0	3
24	I trust that students benefit from Open Day in Universities	0	-1	4	0	-2
25	I think anyone can guide students in their career choices	-4	-3	-3	-4	-3
26	I use free psychometrics tests found on the internet	-2	-4	-2	-2	0
27	I prefer to use an unstructured guidance approach	-2	-2	-2	-2	0
28	I do not have the necessary theoretical knowledge in career guidance	-3	0	2	-1	-1
29	I apply foreign career guidance standards	0	-2	0	1	-2
30	More funds are needed for career guidance services	1	-1	1	1	-1

Table 41

Summary of the Five Factors Descriptions

		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Career Guidance Services	Assessment Tools	2	0	2	1	3
	Educational Choices	0	3	2	3	2
	Career Portfolios	1	2	1	1	0
	Coordinating with Employers & Training Providers	3	-1	0	2	0
	Career Information	1	-1	-1	-1	1
	Job Skills & Personal Development Sessions	2	-2	0	2	2
	Professionals Invitations	2	-2	1	0	3
	Universities Open Day	0	-1	4	0	-2
	Free Psychometrics Tests	-2	-4	-2	-2	0
Professionals Profiles	Theoretical Knowledge	3	0	-2	1	1
	Required Qualifications	2	1	-1	4	1
Public Policies	Coordinating with Government	0	0	4	0	2
	Career Guidance National Guidelines	1	1	0	-3	1

Note. For all scales, 4 & 3 = Most Agree; 2 & 1 = Slightly Agree; 0 = Neutral; -1 & -2 = Slightly Disagree; -3 & -4 = Most Disagree. Factor 1 = I Use my Knowledge to Assist Students in their Career Choices, Factor 2 = I Use my Structured Approach to Assist Students in their Educational Choices, Factor 3 = I Need Governmental Interventions to Help Me Assist Students in their Career & Educational Choices, Factor 4 = My Qualifications Are Only Needed to Assist Students in their Career & Educational Choices, Factor 5 = Loving my Job Help me in Assisting Students in their Career and Educational Choices

Factor 1: I Use my Knowledge to Assist Students in their Career Choices. Factor 1 explains 16% of the study variance. Eleven participants are significantly associated with this factor. Nine of them are females and the rest are males employed in educational institutions. Four of them work in private schools, 5 in private universities, 1 in a private school and a public university at the same time; and one in public and private universities,

and in a public organisation. Nine of these institutions are located in Beirut, and 2 in the Mount Lebanon region. Seven participants work in the counselling department, 2 in the educational department, 1 in the administration department, and 1 in the student affairs department. Yet, none of them holds a diploma relevant to the CG studies. In fact, 2 of them are holding degrees in education, and the rest hold other types of degrees. Six of the 11 participants did training, internships, and/or attended workshops and seminars relevant to the CG field. Finally, based on the participants' responses, 4 of them had between 1 and 5 years of experience in the CG field, 5 of them had between 5 and 10 years of experience, and the rest had more than 10 years of experience in this field.

-4	-3	-2	-1	0	+1	+2	+3	+4
25	8	1	3	5	6	11	18	14
	28	2	4	9	12	13	19	
		26	7	10	15	22		
		27	16	17	21	23		
			20	24	30			
				29				

Figure 6. Q-Sort Grid: Factor 1

As CG professionals this group believes that CG services are crucial for all students (14: +4) and they feel that in general students appear to be interested in them (8: -3). Yet, they slightly agree with respect of students' perception of the positive benefits of these services (4: -1). When delivering CG services in their jobs, they first tend to strongly coordinate with employers and training providers (19: +3). Later in the process, the type of service on which they might rely is inviting professionals from different sectors to describe the types of tasks and responsibilities they are handling in their profession (23: +2) and

organising sessions for students to help them develop their skills related for future jobs (22: + 2). Last but not least, assisting students in understanding their career interests and their capabilities (11: + 2) using assessment tools is one of the options considered by these professionals (1: - 2). Based on the aforementioned, this group seemingly uses a combination of CG services. However undoubtedly, relying on existing expertise in the market would be their primary source for guiding students with their careers rather than using educational choices. However, compared to other groups they appeared to be the least concerned with educational guidance. In fact, they do not tend to accord high importance to services that help students in their educational choices (10: 0). Despite the fact that as much these CG professionals thought that not anyone can guide students in their career choices (25: - 4) as the most of the other groups, they slightly agreed on the need of CG national guidelines (15: +1). They believe that coordinating with government in order to deliver high standards and consistent CG services of low priority (9: 0). On the contrary, acquiring the necessary knowledge in the CG field is of greater importance than following standardised guidelines in all institutions, which provide CG services. Indeed, they feel very confident about the positive impact of their career interventions on students (18: + 3) because they believe that they acquired the fundamental theoretical knowledge in CG (28: - 3) that allows them to adopt a structured approach when providing CG services (27: - 2), and to be aware that the free psychometric tests found on the internet are useless since they were not proven to be valid and reliable (26: - 2).

Yet, they feel slightly less confident in terms of the required qualifications to hold in order to practise CG (13: + 2, 23: + 2). The latter would explain the reason behind this group's tendency to rely on professionals and experts' skills and knowledge (19: +3) rather than their own expertise in practising CG services such as creating portfolios for each student (12: + 1), which is of lesser importance, according to them. They exhibited this confidence by

claiming that assisting and helping students explore the existing work opportunities that match their abilities and their interests is easy to some extent (2: - 2), which suggests that acquiring the required knowledge and qualifications would simplify the CG practitioner job. Compared to other groups, this group feels comfortable and assured about the CG services they are delivering in response to the students' needs. Although they feel very convinced about the positive impact of their CG practices (18: + 3), they appear unsure about whether students perceive CG practices as efficient or not (17: 0). Possibly, this group would explain this assumption by the simple fact that students are not well informed about CG services and their effectiveness (5: 0). However, these professionals do not appear to be acting proactively to change this perception. Indeed, it seems as if they are not approaching students enough in order to promote what they are delivering (20: - 1). Yet, they seemed to be enjoying their jobs and assisting students in their career investigation (11: + 2). These participants might feel more than other groups that funds are needed (30: + 1) to promote CG services, to be better paid, to purchase the required tools, and/or be enrolled in mandatory training related to this field.

Finally, in terms of students' CR capability, they believe that the minority of students are able, to plan for their career to some extent, after having assessed their available career opportunities (3: - 1, 16: - 1), and to be decisive upon that (7: - 1).

Table 42

Distinguishing Statements for Factor 1

No	Distinguishing Statement	No	RNK	SCR
19	Coordinating with employers and training providers is important in my job	19	3	1.67
13	I think that I have the required qualifications to practise career guidance	13	2	1.04*
6	Access to labour trends and market statistics is limited	6	1	.81*
10	I usually help students to make educational choices	10	0	.46
28	I do not have the necessary theoretical knowledge in career guidance	28	-3	-1.48*

Note. For all statement distinctive significance at $p < .05$; asterisk * indicates significance at $p < .01$. Factor 1 = I Use my Knowledge to Assist Students in their Career Choices

Factor 2: I Use my Structured Approach to Assist Students in their Educational

Choices. Factor 2 explains 10% of the study variance. Six participants are significantly associated with this factor. Four of them are females and the rest are males, all employed in educational institutions except one participant who is a self-employed. Two of them work in private schools, 3 in private universities, and 1 in a private organisation. Five of these institutions are located in Beirut, and 1 in the Mount Lebanon region. Four participants work in the counselling department, 1 in the educational department, and 1 in the student affairs department. Yet, none of them holds a diploma relevant to the CG studies except one participant who validated studies in psychology. Only one of the participants participated in a CG training. Finally, based on the participants' responses, 4 of them had between 1 and 5 years of experience and the rest had more than 10 years of experience in this field.

-4	-3	-2	-1	0	+1	+2	+3	+4
26	16	22	4	1	3	12	10	6
	25	23	19	2	5	14	11	
		27	21	8	7	18		
		29	24	9	13	20		
			30	17	15			
				28				

Figure 7. Q-Sort Grid: Factor 2

The CG professionals who represent this point of view showed much more interests in labour trends and market statistics than other factors (6: + 4). Seemingly they rely enormously on these studies outputs in order to help students in their career decisions. Yet, using other assessment tools in their work with students is not an option that they rely on heavily (1: 0). They do not believe in the benefits of the free psychometric tests available on the Internet to assist them in their CG practices (26, - 4). Moreover, they have doubts about the benefit of university open days for student career and educational choices. Contrary to other factors, they consider students' career portfolios as beneficial (12: + 2). Seemingly, these types of CG tools would assist these professionals in their major tasks. These tasks include but are not limited to helping students understand themselves (11: + 3) and assisting them when they are attempting to make educational choices (10, + 3).

With respect to helping students in their career choices, this group appears to be less involved in such activities. They explicitly stated that they do not deliver services that might help students in their career decisions. Indeed, they do not organise sessions that inform students on needed skills for each job and focus on students' personal development in order to acquire these skills (22: - 2). They are the only group which does not consider that

coordinating with employers and training providers is crucial for their jobs (19: - 1) and that does not tend to invite professionals from different sectors to provide students with more information and details about their jobs (23: - 2). This clear tendency to provide services related to educational choices rather than career choices might be explained by the simple fact that these participants strongly believe that not anyone can guide students in their career choices (25: - 3) and they might not be able to provide such services. Actually, they slightly agreed on the need for qualifications to provide CG services (13: + 1) and they appeared not certain about whether they assimilated the necessary theoretical knowledge in CG (28: 0).

Furthermore, they prefer to use a structured approach when they are delivering CG services (27: - 2). Thus, CG national guidelines would help them adopt a more structured approach in their jobs (15: + 1). However, in the absence of such guidelines, they do not show any willingness to apply foreign CG standards (29: - 2) nor to coordinate with the government on the delivery of CG services (9: 0).

Within this point of view, CG professionals slightly agree that students are not well informed about CG services (5: + 1). Therefore, they appear doubtful about students' perception with respect to CG services' efficiency at universities and schools (17: 0).

In terms of students' CR, participants of this group suggest that students are in need of guidance and awareness with regards to career planning (16: - 3). Yet, students are more capable when it comes to evaluating their options (3: + 1). Thus, students would hesitate to make career-related decisions (7: + 1).

Even though, this group thinks that career guidelines are needed and students are not well informed about the importance of CG, they believe more than the majority of other factors that more funds for CG services are not needed (30: - 1).

Table 43

Distinguishing Statements for Factor 2

No	Distinguishing Statement	No	RNK	SCR
6	Access to labour trends and market statistics is limited	6	4	2.04*
20	I only assist students who seek career guidance advice	20	2	1.20*
23	I invite professionals from different sectors to talk about their profession	23	-2	-.76
26	I use free psychometric tests found on the internet	26	-4	-2.57*

Note. For all statement distinctive significance at $p < .05$; asterisk * indicates significance at $p < .01$. Factor 2 = I Use my Structured Approach to Assist Students in their Educational Choices

Factor 3: I Need Governmental Interventions to Help Me Assist Students in their Career & Educational Choices. Factor 3 explains 8% of the study variance. Only 3 participants are significantly associated with this factor. All of them are females employed in educational institutions. One of them works in a private school located in Beirut, 1 in a private university located in Mount Lebanon region, and 1 in a private organisation that has branches in all Lebanese regions. Two participants work in the counselling department, and 1 in the administration department. Yet, only one of them holds a diploma relevant to the CG studies and the two others have diploma in other fields. None of them participated in training, internships, nor attended workshops relevant to the CG field. Finally, all of them had between 1 and 5 years of experience in the CG field.

-4	-3	-2	-1	0	+1	+2	+3	+4
9	16	1	2	4	7	5	3	24
	25	20	8	6	11	10	14	
		26	13	15	12	17		
		27	18	19	23	28		
			21	22	30			
				29				

Figure 8. Q-Sort Grid: Factor 3

CG professionals expressing this point of view strongly think that students can benefit from open days in universities (24: + 4) when they are making career decisions. Yet, considering other options of CG services, they appear more or less convinced of their benefits. For instance, in their work with students, they agree to use assessment tools (1: - 2). As with most CG professionals, they do not consider free psychometrics tests found on the Internet as reliable tools to be used (26: - 2). They rarely invite professionals to talk about their professions (23: + 1) and provide students with career information (21: - 1). When it comes to coordinating with employers and training providers, they appear to be indecisive about whether they want to use this services with students. This hesitation about what kind of CG service to use is illustrated by a lack of confidence with regards to the positive impact of their interventions in this field (18: - 1). Apparently, this lack of self-assurance would be derived from a lack of the necessary theoretical knowledge in CG (28: + 2) and a feeling of not having the required qualifications to practise CG services (13: - 1). This group appears to be the only one admitting to not having the necessary requirements for CG practices. They are probably feeling incapable of performing their jobs as they would wish to, which is

impacting their satisfaction with their job negatively. Actually, this factor rates last in enjoying assisting students to understand themselves (11: + 1).

Furthermore, since these professionals strongly believe that not just anyone is able to assist students in their career and educational choices (25: - 3), they strongly urge government to coordinate them when delivering CG services (9: - 4). They appear confused and indecisive about the importance of CG guidelines and standards. They seem unfamiliar with national CG guidelines (15: 0) and foreign CG standards (29: 0).

As for students' CR, participants of this group are strongly certain about students' need to be assisted when planning their careers (16: - 3) and when assessing their careers and educational choices (3: + 3). Hence, students appear to be hesitating when making career decisions (7: + 1). Consequently, CG professionals of this group were strongly convinced that CG practices are fundamental to all students (14: + 3), and that their benefits must be better communicated to students (5: + 2). This group especially believes that universities and schools' students who experienced CG services are satisfied with the effectiveness of such services (17: + 2).

Table 44

Distinguishing Statements for Factor 3

No	Distinguishing Statement	No	RNK	SCR
24	I trust that students benefit from Open Day in Universities	24	4	1.76*
3	The majority of students do not know how to evaluate their options	3	3	1.44
5	I feel that students are not well informed about career guidance	5	2	1.33
28	I do not have the necessary theoretical knowledge in career guidance	28	2	.88*
18	I am confident about the positive impact of my career guidance interventions	18	-1	-.46*
13	I think that I have the required qualifications to practise career guidance	13	-1	-.80*
9	It is not necessary to coordinate with government on the delivery of career guidance services	9	-4	-1.99*

Note. For all statement distinctive significance at $p < .05$; asterisk * indicates significance at $p < .01$. Factor 3 = I Need Governmental Interventions to Help Me Assist Students in their Career & Educational Choices

Factor 4: My Qualifications Are Only Needed to Assist Students in their Career & Educational Choices. Factor 4 explains 10% of the study variance. Five participants are significantly associated with this factor. Four participants from this group are females and one is a male employed in educational institutions. Three of them work in private schools and 2 in private universities. Three of these institutions are located in Beirut, and 2 in the Mount Lebanon region. Four participants work in the counselling department, and 1 in the administration department. Only one of them is specialised in counselling studies and the rest are specialised in other fields. Four of the 5 participants participated in training, internships, and/or attended workshops and seminars related to the CG field. Finally, based on the participants' responses, 1 of them had from 1 to 5 years of experience in the CG field, 2 of them had between 5 and 10 years of experience, and the last two had more than 10 years of experience in this field.

-4	-3	-2	-1	0	+1	+2	+3	+4
25	15	8	6	4	1	2	10	13
	20	16	7	5	3	11	18	
		26	17	9	12	19		
		27	21	14	29	22		
			28	23	30			
				24				

Figure 9. Q-Sort Grid: Factor 4

Much more than other factors, CG professionals with this point of view believe that government guidelines are not needed to practise CG services (15: - 3). The absence of such guidelines, these professionals are the only participants who would slightly rely on foreign CG standards (29: + 1). Similarly to factor 3 participants appear unsure about the positive impact of coordinating with the government when attempting to deliver these services (9: 0). On the contrary, they reveal to be strongly confident about the benefits of their CG interventions (18: + 3). Believing that having a qualified CG practitioner status might be the accreditation that enables these participants to guide students in their career and educational choices (25: - 4). After consulting the demographic data, results show that the majority of this group hold training certificates relevant to the CG field. Yet, this factor seems not highly confident about the theoretical knowledge that participants have learned during their years of experience within the field (28: - 1). This seems consistent with participants' specialisation, since none of them pursued studies relevant to the CG field.

In terms of the type of CG services that they provide, helping students in their educational choices is weighted more than other services (10: + 3). Organising sessions that focus on job skills and students' personal development (22: + 2) and providing career

information (21: - 1) would come in second place. Indeed, this group believes, more than other groups, that helping students in investigating work opportunities is relatively hard (2: + 2); although they slightly feel more than other factors, that access to labour trends and market statistics is not limited (6: - 1).

Based on these professionals experience with students, they believe as much as the majority of professionals that students are strongly interested in such services (8: - 2). Yet, they are the only ones who claimed that students do not believe in the effectiveness of the existing CG services at universities and/or schools (17: - 1). Investigating reasons behind this assumption reveals that this factor would think that students might not be well informed about the benefits of the existing CG services (4: 0, 5: 0).

Contrary to other points of view, this factor might think that students' CR is variable since participants of this factor seem uncertain whether CG services are fundamental to all students (14: 0). In addition, based on their experience, they felt that students face difficulties when planning for their careers (16: -2) more than when evaluating their options (3: + 1) or making career educational decisions (7: - 1).

Finally, the satisfaction felt by these professionals when helping students to understand themselves (11: + 2) pushed them to help students seeking advice unrelated to CG (20: - 3).

Table 45

Distinguishing Statements for Factor 4

No	Distinguishing Statement	No	RNK	SCR
13	I think that I have the required qualifications to practise career guidance	13	4	2.00*
19	Coordinating with employers and training providers is important in my job	19	2	1.14
2	It is hard to assist students in investigating work opportunities	2	2	1.06*
29	I apply foreign career guidance standards	29	1	.50
14	I think that career guidance is fundamental for all students	14	0	.12*
23	I invite professionals from different sectors to talk about their profession	23	0	-.12
15	Career guidance national guidelines are very important for my job	15	-3	-1.37*

Note. For all statement distinctive significance at $p < .05$; asterisk * indicates significance at $p < .01$. Factor 4 = My Qualifications Are Only Needed to Assist Students in their Career & Educational Choices

Factor 5: Loving my Job Helps Me in Assisting Students in their Career and Educational Choices. Factor 5 explains 10% of the study variance. Five participants are significantly associated with this factor. All of the participants who responded to the demographic questions are females employed in educational institutions except one who is self-employed. Four of them work in private schools and 1 in a private school and a private organisation at the same time. Two of these institutions are located in Beirut, and 2 in the Mount Lebanon region and one in the North of Lebanon region. Three participants work in the counselling department, 1 in the administration department, and one in the social field. None of them is specialised in counselling studies. One finished her studies in the sociology field, 1 in the education field, and the rest in other fields. Only one of the 5 participants did training, internships, and/or attended workshops and seminars relevant to the CG field. Finally, based on the participants' responses, 2 of them had between 1 and 5 years of

experience in the CG field, 1 of them had between 5 and 10 years of experience, and the last two had more than 10 years of experience in this field.

-4	-3	-2	-1	0	+1	+2	+3	+4
20	1	8	2	4	7	10	14	11
	25	9	3	6	13	17	23	
		24	5	12	15	18		
		29	28	19	16	22		
			30	26	21			
				27				

Figure 10. Q-Sort Grid: Factor 5

Professionals who share this viewpoint clearly express their interest in helping students with their career and educational choices. Their feeling of fulfilment when providing CG services (11: + 4) and their strong belief that CG services are fundamental for all students (14: + 3) drive them to help all students not only those who seek such services (20: - 4). According to this group not anyone is competent in terms of guiding students with their career choices (25: - 3). However, when these professionals were asked to rank whether they have learned the needed theoretical knowledge in CG (28: - 1) and assimilated the necessary qualifications to practise CG (13: + 1), they slightly agreed. Despite this limitation, they still appear fairly confident about their CG interventions (18: + 2) and believe that students are capable of perceiving the efficiency of their practices in schools/universities (17: + 2). After analysing all the aforementioned, it is possible that professionals of this group believe that loving the job of CG and demonstrating a high level of interest would positively affect the delivery of CG services.

With respect to the type of services they rely on when providing CG practices, more than other factors they appear to rely heavily on inviting professionals to provide information about their jobs (23: + 3) and on using assessment tools to help students understand themselves (1: - 3). Seemingly, one of the assessment tools that they consider are the free psychometric tests available on the internet (26: 0). As a matter of fact, they were the only group who did not disagree with using such assessment tools and preferred to stay undecided with regard of this issue. Other types of services they might consider in their jobs are organising sessions that focus on job skills and students' personal development (22: + 2), assisting students in their educational choices (10: + 2), and finally providing occasionally some career information (21: + 1). However, these participants do not perceive any benefit in inviting students to participate in open days in universities (24: - 2). Compared to other professionals, they appear to be the last supporters of creating portfolios for each student (12: 0). The latter would explain their more or less structured approach when assisting students in their choices (27: 0).

Furthermore, adopting such an approach (27: 0) would explain the minor need exhibited by these professionals when they were asked to rank the importance of national CG guidelines (15: + 1) and their total disagreement with applying foreign CG standards in the absence of such guidelines (29: - 2). Yet, they consider coordinating with the government on the delivery of CG services as necessary (9: - 2).

As for these professionals' perception of students' CR, they agree more than other groups that the majority of students are able to plan for their careers (16: + 1) and to evaluate their options (3: - 1). Yet, regarding students' decision-making, similarly to most other groups, they feel that the majority of students hesitate to make career decisions (7: + 1).

Finally, it is possible that the institutions they work for are dedicating some funds to back-up CG practices and therefore more funds might not be needed (30: - 1).

Table 46

Distinguishing Statements for Factor 5

No	Statement	No	RNK	SCR
11	I enjoy assisting students to understand themselves	11	4	2.35
23	I invite professionals from different sectors to talk about their profession	23	3	1.70*
16	Most of the students that I meet are aware of how to plan their career	16	1	.32*
27	I prefer to use an unstructured guidance approach	27	0	.03

Note. For all statement distinctive significance at $p < .05$; asterisk * indicates significance at $p < .01$. Factor 5 = Loving my Job Help me in Assisting Students in their Career and Educational Choices

Post-sorting information findings. Results from this study list the CG services organised by CG professionals from the most frequent services to less frequent ones: (1) advising students on academic programmes and jobs; and inviting professionals from different sectors to talk about their profession (70.7%), (2) preparing students for university application and admission (61%), (3) planning and preparing for university admissions tests such as SAT, TAGE-MAGE, TOEFL, GMAT; providing specialised counselling and intervention services to provide students with individualised attention; taking students to open day in universities (56.1%), (4) arranging job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations (51.2%), (5) informing students about financing that can be used to support advanced education and training (41.5%), (6) developing career portfolios, which include test and grades results, examples of student work, and resumes and cover letters to prospective employers (35.6%), and (7) sponsoring workshops, classes, focus groups, and special presentations that focus on job skills and personal development (34.1%) (see Appendix W).

Choosing one type of service over another would be attributed to a lack of skills or knowledge in delivering CG (A. G. Watts, 2000). Combining these findings with those of the

Q study seems to further the negative impact career services had on students' with these services. Q results show that only one group of professionals admitted not acquiring the requisite knowledge and qualifications. Two other groups felt more confident about their abilities with this respect, and the remaining two groups appeared neutral and indifferent. To confirm these findings, a question on what a CG practitioner does inspired from the definition of OECD (2004b) was added to explore professionals' knowledge and awareness with this respect. Results disclosed that only 43.9% of current career professionals knew the right answer. Other responses were (1) assisting students to understand themselves, including assessing their own achievements, abilities, and interests (43.9%) and (2) helping students to make their own decisions according to what is available on the employment market (31.5%). Other major tasks such as (1) implementing students plans for higher education (29.3%), (2) assisting students in using computer software and careers information and other (19.5%), and (3) administers tests and provides results (14.5%) were the least recognised (see Appendix X).

These findings pushed the researcher to explore whether professionals feel a need for government interventions in order to control career services provision and ensure standardised career professionals' interventions. Perceiving the importance of funds within the CG field showed slightly in the Q study. However, in this study results showed that almost all participants agreed on the need for more funds. This indicates that professionals acknowledge the need for funds; yet, this would come in second place in terms of importance compared to other factors within the provision of CG services. Finally, when CG professionals were asked about whether they are interested to have in Lebanon, a platform/association that provides academic and scientific data, sets quality standards and guidelines, gives evidence-based knowledge and acts as a body of reference for practitioners,

those who answered this question (84.2%) showed high interest in such initiatives (see Appendix Y).

CG professionals were asked to give their suggestions to improve CG. A sample of their statements were, (1) “should be more professional and a part of a bigger community where we can share opinions and get advice as practitioner”, (2) “unifying the system in all schools”

(3) “Funds funds funds to create 1 center and its branches”, (4) “More awareness more information more studies about market and job needs”, (5) “créer des postes dans le public” (create career guidance jobs in public sector), and (6) “to have funds available for that and real professionals in the field” (see Appendix Z). In addition to the improvements, CG professionals were asked about the weaknesses of CG, (1) “Absence of standards, rules and regulations”, (2) “Absence of needed funds for career guidance stuff development”, (3) “Absence de service d’orientation dans les établissements scolaires publics” (absence of career guidance in public schools), (4) “it is not organised, we need to meet regularly to exchange the experience, expertise and techniques”, (5) “lack of national studies and research and data”, (6) “No career guidance. Some universities become materiels”, (7) “no specialized career counsellors. No platform for communication amongst people offering career guidance service”, (8) “No statistics No planning No guidelines No reliability nor reference to what is done”, (9) “not taken very seriously need some funds to improve the system is not a specific speciality in university ... no reference to go back to”, (10) “No funds for a big center of career guidance where all students can be helped regardless of their school”, (11) “to have access to market statistics and the needs of the market no platform, no guidelines and standards in career guidance which is specific to Lebanon, to its culture and needs”, and (12) “lack of awareness on the importance of career guidance” (see Appendix AA).

The most striking findings from this study are (1) the awareness of CG professionals of what CG professionals need to do, and (2) a significant demand for a national CG professional body to set professional standards and protect the identify of qualified accredited career practitioners.

However, professionals reported that the role of current CG professionals is blurred (D. Hughes, 2013). For instance some professionals stated "... it depends on each person's level of knowledge and training, which is leading to inconsistency in the services provided by different educational institutions", "there is no clear cut job description and a specialized job in CG in schools and universities in Lebanon". Likewise, students mentioned "create diplomas that will give the necessary accreditation to career counsellors. Take it more seriously especially in schools", "the persons in charge of career guidance are not qualified for the job". Professionals' requests on the above are "avant tout une association, une reference, un cadre" (meaning foremost an association, a reference, a framework), "laws and regulations organisation".

To conclude, evidence within this study is confirmatory and complementary to the Q study findings. It provided further insights and a higher quality of data to report the current provision of CG services and CG professionals' projection on the CG status and possible ways to move forward.

Discussion

According to literature, CG standards in Lebanon were found to be non-existing (Abdul Ghani, 2006). Although some policies have been formulated and responsibilities have been shifted, the CG provision stayed undeveloped and the MEHE CG department remained inactive. Hence, the current delivery of such services has remained within the remit of CG professionals, who have taken over the responsibility of the management of these services in Lebanon. Yet, Watts (2000) argued that in order for those professionals to improve CG

services, they need to collaborate with policy-makers to develop guidance standards and to provide the needed support and understanding to the latter to attain their objectives. Indeed, McKeown (1988) highlighted that the mission of such standards is to guarantee fairness of service to students in order for them to make realistic and sound career decisions. Thus, it is crucial to explore the type of CG services provided to Lebanese students, the current range of CG professionals' profiles performing within this field in Lebanon, and finally the perception of these professionals with respect of the role of government in the delivery of such services.

It must be noted that the number of participants in this study are not considered as fully comparable, and their points of view and inputs are valuable to give a broad indication of career services provision in the Lebanese culture. With these caveats, a number of commonalities and differences which are and worthy of comment and interpretation.

First of all, the use of different sources of CG services was examined from the perspective of career professionals in Lebanon and evaluated in terms of the extent to which it can be used as a holistic student-centered guidance in higher education (Van Esbroeck, 1997). Typical CG services that can be delivered to students would include career assessment, career information, career counselling, career education (McIlveen et al., 2010). The provision of these services would help students make their educational and/or professional decisions (Sultana & Watts, 2008). According to the Q study, results reveal that CG professionals provide different CG services including educational services and/or professional services. As a matter of fact, it was found that professionals sharing the first point of view rely heavily on career education and then career assessment more than other type of services. They display an interest in delivering services, which helps students with their career decisions rather than educational decisions. In contrast, professionals from factor 2 would consider using students' career portfolios in the counselling sessions in order to help students with their educational choices, while neglecting all other types of services. The third

factor delivers services within the field of career information such as university open days and of career assessment by using available assessment tools in the market. Professionals of the fourth factor appear to have faith in career education services such as organising skills and personal development sessions, and coordinating with employers and training providers to help students with their educational and career choices. The final factor participants express their point of view in terms of the type of services to use when guiding students, and appear to be relying on a wider range of career services. Seemingly, they would use career information services, career counselling, and/or career assessment services to help students with their educational or career choices. For instance, they would invite professionals and organise workshops to develop students' professional skills.

Accordingly, hypothesis 5, "Career guidance professionals in Lebanon provide different type of career guidance services" was demonstrated as valid.

This is consistent with the unpublished report of Abdul Ghani (2006) findings indicating that CG activities were not included in the national curricula of educational institutions in Lebanon. Furthermore, no CG standards were found among universities stipulating the type of services and the procedures to follow by professionals when delivering such services. Furthermore, to the researcher's knowledge, CG services provided within each university in Lebanon are being assessed by the quality models adopted by these institutions. Hence, as discussed in the literature, a minimum requirements controlling the quality of services provided by the educational institutions would move guidance forward while meeting the students' needs (Urzainki et al., 2005).

Furthermore, it must be noted that in this study the educational background of career professionals ranged from a degree in education or psychology to other degrees in relevant to the CG field. Moreover, the range of training required varied between postgraduate training to no training at all. This variation of professionals profile would be attributed to the

difference of professionals' notion of CG activities. Indeed, Watts (1994) argued that psychologists, teachers, administrators and CG counsellors may not be perceiving CG as a specialty but more as an adjunct to their primary role. These findings are similar to studies' results conducted in other countries. For instance, similar models are reported in Australia (Davis & Braithwaite, 1990; W. Patton, 2000) and in Bostwana (Rollin, 1990).

Referring to the Q study's results, it was observed that professionals' educational background was not consistent between factors. In other words, professionals from the same factor did not have a common degree. Thus, hypothesis 6 was unjustified; the type of CG services varies based on CG professionals' educational background.

Consequently, a dilemma arises with respect to the reason behind relying on some types of services rather than others. One possible justification would be that these career professionals may have superior degrees of qualifications and a number of years of experience guiding students but not necessarily with adequate content specific to the minimum requirements for the CG field. In addition, Watts and Van Esbroeck (1998) claimed that the transition from higher education to employment is becoming more complex than before. Hence, career professionals would find themselves unable to deliver all types of career services that suit the students' needs.

Therefore, it was worthy to investigate whether these professionals consider acquiring the required knowledge and skills to provide career services even though they do not have the requisite degree and qualifications in the CG field and to try to link their beliefs with the type of career services provided. According to findings, professionals who believe in attaining the needed qualifications, knowledge, or both, tend to provide career education services such as professionals from the factor 1 and 4. However, professionals who feel that they lack CG requirements or doubt whether they acquired the important components of the CG practitioners' qualifications and knowledge such as professionals from factor 2 and 3, attempt

to use career information services and seemingly tend to avoid the use of other types of services. Finally, professionals from the final factor who believe more or less in their knowledge and qualifications within the field are likely to use a broader range of career services. Therefore, hypothesis 7 was supported; the type of CG services varies based on the CG professionals' professional background.

However, regardless of whether all professionals undertook studies in CG or participated in professional training, they will raise questions regarding CG services provision being at risk of inadequate preparation of career professionals for CG services. This also implies concerns regarding students' ability to consult qualified career professionals when seeking guidance services especially that all professionals are claiming status as CG practitioners irrespective of their backgrounds (Sultana & Watts, 2008). Finally, professionals who have concerns and appear doubtful about the quality of CG services they are providing, would like to obtain information about their entitlement and the design, management, and evaluation of guidance services.

Consequently, the aforementioned would throw the awareness of current professionals into critical relief when international findings within this field emerge and provide insights about the importance of policies and quality assurance systems (Wannan & McCarthy, 2005).

The growth of CG services provision must be grounded to the changing needs of students and must be viewed as proactive to cope with the extension and transformation of higher education in the perspective of lifelong learning. Yet, as already discussed, a lack of clear qualifications and an inconsistency in training weakens the credibility of career professionals in the eyes of the fellow-professionals and the general public (Organisation for Economic Co-operation and Development, 2002).

According to these findings and to the OECD (2004a) international review of CG services, a need to enhance the quality of education and training for practice in this field is

highlighted. The main concern of these findings is that the current CG professionals' position may not be fully insured in the absence of public policies within this field. Specially those discrepancies between professionals' qualifications and knowledge, working for the same educational institution were largely reported. Consequently, students who scored highly on CM are not necessarily receiving efficient CG services. In addition the positive impact of CG provision is not assumed within this study; future research is needed for further confirmation.

It is worth mentioning that although no clear requirements are available to inform professionals about the content of CG services, non-significant progress has been identified in developing careers guidance provision by professionals for it to include CG core components as part of the experience provided to their students. Indeed, except for professionals from the factor 4 who believe in referring to international CG standards when national ones are unavailable, none of the other professionals expressed an interest in consulting applied policies and guidelines within the field. Watts (2000) highlighted the need to enrich professionals' awareness about the role of international policies especially with the increasing use of Internet and web-based services which are crossing national boundaries.

Given that the laws formulated by the government were not applied nor enforced, the career professionals have marginalised them. Hence, the responsibility for ensuring that all CG components are present lies within the funding and policy remit of educational institutions and some non-governmental organisations in Lebanon. However, to carry out this responsibility, CG professionals are encouraged to find ways to influence policy-makers in Lebanon by providing them with more evidence in organised ways and by creating formal partnerships with the government (A. G. Watts, 2000).

Yet, according to the Q study results, professionals have not been reported equally over all groups: only a few career professionals consider coordinating effectively with the government in order to ensure that there is sufficient coherence, progression, and continuity

in students' experiences in the career development field. Therefore, hypothesis 8 was supported: the level of need for public policy varies from one CG professional's point of view to another.

Relying solely on career professionals' findings and evidence would be considered inadequate especially given that professionals' skills and qualifications when providing CG services is questioned. Thus, there is a need to review in depth the university degrees, the type of training undertaken, and the quality of experience within the field of CG that ostensibly prepare professionals in Lebanon for CG practices, job descriptions, and current policies used within institutions providing such services. With this condition, policy-makers' interventions are pivotal and are at the forefront of quality issues and evidence in guidance (Organisation for Economic Co-operation and Development, 2000).

All the above, elucidate the recent report findings of Hughes and Gratton (2009), which concludes that any omission of policy, practice, research, and/or theory would undermine the guidance field. Hence, the final hypothesis 9 appears to be valid: the absence of public policy affects CG professionals' choices of CG services.

To conclude, in Lebanon, there is no common framework of guidance used by all CG professionals, although attempts have been made by the government to establish a CG department, which would be responsible for the quality of CG provided in Lebanon. So far, no formulated policy has been implemented, quality assurance approaches have been largely neglected, and CG provision has not been found manageable or controllable by the legislation department in Lebanon. It is worthy to note that these findings and recommendations were identified by Sultana and Watts (2007) in their report on Mediterranean countries, indicating a stagnant status of CG provision in Lebanon. Thus, policy-makers are urged to start taking actions in this respect.

Reflecting on the study findings, it is clear to that the current provision of career services in Lebanon is not sufficient. There exists a dearth of guidelines and standards which inform career professional about evidence-based practices in the guidance field and information for users to help them in their choices when they attempt to make use of CG services.

Chapter 5

General Discussion

Overview

Given the economic crisis where access to jobs is largely threatened, an interest in the CG field would appear trivial. Worldwide economic and social forces have put forth pressures on policy-makers. This has led to false promises and to educational institutions badly managing the provision of career services (Sultana, 2013). Watts (1996) stressed the importance of guidance services and their impact on the economic, political, cultural, social, and educational contexts. Therefore, critically auditing the status of CG in the Lebanese culture is at the heart of this thesis. It provides data and evidence in a systematic way for policy-makers and CG professionals in order to avoid mistakes and to constitute a starting point for knowledge development.

Young and Valach (2008) argued that designing a research framework for the evaluation of educational and/or vocational guidance will allow the researcher to ascertain processes and conclusions without misleading policy-makers or guidance programmes. In Lebanon, no CG framework for the provision of CG services was found. Thus, developing a framework that reflects the practice, research, and theory of CG was needed. This stipulates delineating the gap between what has been found in the literature as evidence-based practices and the reality of the universities' current guidance systems. To bridge this gap, the contextual action theory of career (Young, Valach, & Collin, 2002) was found suitable to generate new knowledge in line with diversified context. The designed framework drew relationships between different factors and within the socio-economic context. Another challenge faced by the researcher in the field of the provision of CG services is the lack of an agreed common ground of methods employed (D. Hughes, 2004) to gather data. Hence, in order to give meaning to this relationship a mixed methodological research approach was used to

encompass the uniqueness of the CM and readiness within the Lebanese contexts (Bartholomew & Brown, 2012), the different aspects of the delivery of CG services in Lebanon, and its impacts on students' CM and readiness for career decision-making.

Findings from the current research provide new insights into the perception of career professionals regarding the provision of CG services and the role of policy-makers in these terms. It informs and updates policies and practices about the number of socio-economic factors that truly affect students' CM and readiness in the Lebanese contexts. This designed framework was divided into two parts and each part was assessed using a different method chosen to best answer the respective research questions.

The first part aimed to investigate the construct of CM while emphasising the moderation effect of socio-economic factors in the Lebanese settings. The second part sought to explore in the same context the perceptions of CG professionals with regards to CG services and the role of public policy in the latter's provisions. Moreover, a mixed synthesis of the quantitative study and the Q method findings will be presented in this chapter using a pragmatic modernist view in order to give a more holistic approach to the CG system in Lebanon. As per the mixed methodology design of this study, findings will be triangulated to capitalise on the strengths of both methods and to expand the knowledge and understanding of the studied phenomena. A number of constraints and obstacles, which limited to some extent the work of the researcher in the investigation and the interpretation of the results, will be presented to guide the focus of future research within the CG field. Furthermore, learning from history and sharing common findings have pushed the researcher to build on past discoveries and recommend an action plan for better CG systems in educational institutions. The results reported by Sultana and Watts (2007, 2008) and earlier investigations undertaken by the researcher shaped the conclusions derived from the two studies and informed the researcher's recommendations for the future of CG in Lebanon. By doing so, the researcher

answered the research questions and provided evidence for both the academic and the professional communities utilising established theories on CM.

Career Maturity & Readiness of Students

Within this study, the university students in Lebanon are the beneficiaries of CG services. Considerations regarding the actions taken by these students independently or with others towards career decision-making were addressed, understood, and reported using the CG framework. The matching model to career decision making is the CM of Super (1983) where the individual's readiness for career decisions cannot be understood unless placed within the life space context. However, given the rapid pace of change within a complex world of today highlights the irrelevance of this theory (F. W. Vondracek & Porfeli, 2008) taken as it is to reflect individuals' CM. Nonetheless, Super (1981) stressed the importance of 'person-situation interaction' to his theory and inspired Vondracek and Lerner (1982) to introduce the developmental-contextual meta-theoretical framework. These authors sought to evaluate the dynamic interaction of the development of an individual within a wide array of contexts. These levels of contexts involve the 'family, the educational system, the institutions of commerce and government, culture, and economic and occupational affordances' (F. W. Vondracek & Porfeli, 2008, p. 212). Watson (2008) suggested understanding individuals' CR in the context where their career development occurs. Thus, the current study used the CM construct of Super; yet, it defined it as the readiness of individuals to make career decisions taking into consideration the Lebanese contextual factors. This encouraged the researcher to develop a new instrument to measure university students' CM, one aspect of CR in the Lebanese context. This perspective led to the evaluation of students' CM from their economic and societal identities. Those included but were not necessarily limited to gender, year of birth, region of origin, place of residency, year of graduation, university name, university type, university region, level of degree, change of major, change of major frequency, father's

level of education, mother's level of education, household annual income, religion, and wasta (influence).

Each of these factors revealed valuable findings on university students' career maturity which contributed (1) to the literature on an international and national level by providing comprehensive national evidence, (2) and to the provision of CG services by highlighting which of these factors alternate the CM and thus CR of students, and which ones must be taken into consideration while developing and implementing CG in Lebanon. Indeed, results from the quantitative study chapter provided further understanding on how students' socio-economic factors moderated their CM while exploring, planning, taking career decisions and gaining more knowledge about the world of work. The following section will report the socio-economic factors that had the highest significant moderation effect on the relationship between CM and its components. One of the main relevant factors affecting CG scope in the Lebanese context was wasta (influence) (Sultana & Watts, 2007, 2008), which had the highest moderator effect on CP, CDM, CE and WWK when predicting CM. This would stipulate that students who are highly expecting to secure a job based on their network would not invest time in CG activities (Hofstede, 2001).

Several reviews in the literature reported a significant moderation effect of cultural differences on the meaning of the construct of CM (W. Patton & Lokan, 2001; M. B. Watson & Stead, 2006). This triggered Watson (2008) to suggest an evaluation of CM within groups rather than a cultural comparative research. Findings from the current study present a disparate picture of the effect socio-economic status (including household annual income and parental education) on CM from the western research results. Results from quantitative study indicated that students might be affected by the wealth (income and education) of their parents when planning for their careers (Super et al., 1988); while Patton and Lokan (2001) reported the impact of this factor on students' decision-making and knowledge of the world

of work. As for the level of degree and year of graduation factors, both showed a moderation effect on CM when students are involved in CE activities, showing that, at the highest level of degree, students seemed less and less involved in CE. Ford (1992) introduced the construct of personal agency beliefs (PAB) which is composed of two criteria, the capability beliefs and the context beliefs. Capability beliefs previously described by Bandura (1977) as self-efficacy are defined as personal judgements with regards to one's own skills and capabilities to meet goals. However, the context beliefs are defined as the support received from the individual context to achieve goals. Hence, findings from the current study would be explained by a decreased need for exploration based on masters or doctorate students personal belief that they have gained enough experience during their undergraduate studies to move to CDM and WWK steps. Thus, this will affect their CM scores and will not necessarily mean that graduate students have a low CR. Future research is needed to address this point of view and bring in more evidence. Year of graduation had an additional effect on WWK indicating that students who graduated in 2013 were less informed about the world of work than those expected to graduate in the upcoming years. Such results support the impact of the educational institution on the development of students' career behaviours (D. Watson & Clark, 1984). For instance, the number of universities introducing mandatory internships as an integrated part of the undergraduate courses is increasing rapidly, which allows students to further explore the world of work.

Change of major frequency affected CE positively. The more the students changed their majors, the more they were knowledgeable about how to explore their career interests. However, for WWK, when change of major frequency increased the prediction of CM from WWK decreased. According to Super (1981), the work role "depends upon individual values and upon opportunities which the labour market and society at large offer for the attainment of those values" (p. 30). Therefore, changing several times the type of major allowed students

to discover their own values and match them with the market opportunities. Consequently, experiencing indecisions during the process of career decision-making and forming individual values resulted in lower engagement in CP, CE, and CDM activities.

The prediction of CM based on CE was moderated by the year of birth indicating that the younger the students are, the more they need to be involved in CE activities. This indicates that the sequential property of the CM described by Super (1981) was not validated within the Lebanese contexts. Yet, these findings were more supportive of the idea of examining individual CM in terms of their interactions with their contexts (S.G. Niles, 1998).

Finally, both university type and university name showed a moderation effect on the relationship between each of CP, CDM, WWK and CM. As stated in chapter 1, the related system in each educational institution has an effect on CG provision and thus on CM (González López & Martín Izad, 2004). As for the university type, results showed that the less the public university students were involved in CP, CDM and WWK activities, the lower they revealed to be mature. However, once involved in such activities, their CM increased and reached the same totals as those scored by private university students. According to the Literature Review chapter, the internal system of each educational institution would have an impact on CG services provision and thus on students' level of maturity. Since the quantitative study does not provide any findings on this respect, triangulating these findings with the qualitative study results seemed useful. This will be discussed later in this chapter.

The other factors; gender, region of origin, place of residence, university region, change of major and religion, did not have any moderation effect on the prediction of CM. Religion findings from the quantitative study contradicted findings from the literature. To argue, Sultana and Watts (2008) found that religion was one of the main constraints of CG; yet, within the quantitative study, students appeared to rely more on their rational planning than on religion. This indicates that students are less influenced by external factors and more

oriented towards an internal locus of control. In addition, this stipulates as well that religion is no longer seen as a property of CM (Akhurst & Mkhize, 2006). In light of these findings, assuming that the impact of the community and cultural factors are affecting students less than before is of great importance and should be considered for future research.

Career Guidance Services

As previously stated, this study adopted a developmental-contextual framework indicating that students' CM depends on students' context. Moreover, while examining students' career development, contextual influences must be taken into consideration to evaluate whether they support or embed students' career decision-making (Arthur & McMahon, 2005). In order to examine the higher educational CG systems, it is crucial to evaluate the methods or services delivered (S. C. Whiston & Buck, 2008). Plant (2012) argued that, to evaluate the effectiveness of the provision of guidance, tools other than the surveys are required in order to ensure that CG services are well inserted within a specific culture. Hence, the use of the qualitative study helped gather CG services provision information from CG professionals working in different educational institutions or organisations across Lebanon.

Findings from the Q study run parallel to those of other recent studies showing that there is no coherent specialist services that are evident to university students or to career professionals alike. Professionals from the Q study exhibited confusion over identity and revealed that no requirements to work as a CG professional were identified by organisations which offer guidance services similar to what was found by Hughes (2013). Results showed that professionals from the same institution perceived the delivery of CG services differently. To illustrate, professionals from factor 1 strongly believed in the benefit of career education services and in career assessment more than any other type of services. In contrast, in the final factor, they considered a wider range of career services as important when guiding

students. These results are similar to international reviews from the literature and provide further support to Watts and Sultana's (2004) findings from their review of public policy in countries around the world. This convergence of inter-educational institutions and the lack of a common provision for CG needs to be addressed urgently and must be at the hallmark of policy-makers agenda.

Data gathered from the post-sorting information study showed that the most frequent services provided by major educational institutions in Lebanon are services which intend to help students get information about available university courses and university admissions. Niles and Karajic (2008) noted that although these types of services were found useful, they only constituted a small part of CG provision resulting in an incomplete support to students with their career decisions. This was found consistent with the unpublished study findings conducted in 2011, where students felt they did not receive any value from career services offered by higher educational institutions in Lebanon. Thus, CG training in the Lebanese context are crucial given the complexity of the world of work in the 21st century.

However, relying solely on students' satisfaction surveys rather than a complete audit might not provide insights for career development (Engelland et al., 2000). Therefore, longitudinal studies are needed to describe and analyse the CM and readiness of individuals during their transitions from university to work. Assessing the type and quality of actions taken by these individuals will bring depth and understanding to the provision of CG services and will highlight individuals' needs in terms of career decision-making. This increase of latent demand of enhanced career services is characteristic of the change of work pattern and of job mobility (A. G. Watts, Hughes, & Wood, 2005).

This shift in the CG paradigm raises an alert for improving the quality of CG and expanding the spectrum of guidance services. According to the OECD (2010), many governments are experiencing this trend and are calling for external bodies to provide

guidance services. Within this framework, career practitioners are required to reshape the provision of CG services (Lewin & Colley, 2011) and rethink their professional ethics (Mulvey, 2001). Similarly, in Lebanon, the incapacity of career professionals to deliver services to help students cope with the emergence of a plethora of new markets and trends were revealed in the Q study. To elaborate, choosing one type of service over another would be attributed to a lack of skills or knowledge in delivering CG (A. G. Watts, 2000). Therefore, a thorough analysis of professionals' perception of their aptitudes and abilities in delivering a wider range of career services was found contributing to the current study. Only one group of professionals admitted not acquiring the requisite knowledge and qualifications. Two other groups felt more confident about their abilities in this respect, and the remaining two groups appeared neutral and indifferent. Combining these findings with the post-sorting information study increases the negative impact career services has on students' within these services. Data analysis from the post-sorting qualitative study revealed a lack of precision with the definition of CG and the major tasks and responsibilities of CG practitioners. Herr (1997) argued that profession terminology reflects the content of services provided and defines the quality of interventions the client will have with practitioners. Therefore, a lack of common understanding and wording within the field of CG contributed to a weak development of the provision of CG (S. G. Niles & Karajic, 2008).

Evaluating as well how career professionals proceed when delivering career services further explained students' attitude towards the current provision of such services. The Q findings showed that all groups except one are helping all students in their career decisions and not only those who seek such services. This was not consistent with the findings of the "Career guidance opinion survey" (2011) where students declared relying largely on their personal research and their parents/friends' support rather than on career professionals' assistance. Furthermore, only two groups of professionals acknowledged the need of foreign

standards in the absence of national ones. Digging further into findings showed that professionals from the same institution do not share the same belief in foreign standards, and seemingly applying such standards is the result of personal initiative rather than institutional requirements. Questioning the credibility of professionals' interventions and their capabilities would be reasonable in light of these findings as well as calling for future studies to investigate this matter thoroughly. Furthermore, consolidating career professionals' interventions through the development of standards of practice is important for the quality of CG provisions (Arthur, 2008).

The interpretation of these outcomes triggered the researcher to probe professionals more to examine their attentiveness to their performance when delivering career services. Almost all professionals acknowledged the need for CG to help students in their career choices and recognised that not anyone can assist students with this matter. They all seemed to enjoy their jobs as career professionals and did not generally face any difficulties carrying out their responsibilities. Moreover, only for one group of professionals displayed confidence in the positive impact of their interventions and believed that students are interested in CG services. When professionals were asked about whether students believe in the benefits of CG services they seemed indifferent and unsure about this matter. This implicates that professionals within this field must follow-up with students to measure the effectiveness of their career interventions. It seems that these professionals are not completely aware of the negative impact of current career services provisions on students' professional lives. Consequently, the evaluation of career practices appears inadequate or even absent. Whiston and Buck (2008) stressed the importance of integrating evaluation activities within the provision of CG in order to increase the effectiveness of career interventions. Arthur (2008) added that self-assessment tools are needed to allow practitioners to evaluate their current competencies and identify future learning needs.

Plant (2004) argued that the impact of power in the formulation of standards and guidelines is massive and it plays an important role in ensuring a high standard of CG provision. These conclusions and arguments pushed the researcher to explore whether professionals feel in need of government interventions in order to control career services provision and ensure standardised career professionals' interventions. Only two groups of professionals accorded importance to coordinating with the government on the delivery of CG services. As for national guidelines, all professionals, except for one group, showed indifference or slight agreement with this statement. Finally, perceiving the importance of funds within the CG field was slightly perceived in the Q study. However, in the post-sorting information study, professionals perceived the need for more funds and expressed their interest in having a platform/association, which would act as body of reference for practitioners. However, showing an interest in such initiatives without translating them into actions will not influence policy-makers. Better communication between career practitioners and policy-makers is needed. This can occur by providing evidence on the nature of CG work and professionals needs in the delivery of career services (A. G. Watts, 2000).

Therefore, findings from the current study would bring more insight to the CG field by indicating the precautions that need to be taken to eliminate the effect of any socio-economic factors when developing career services. This demonstrated where current career professionals stand in terms of students' perceptions of the effectiveness of professional's interventions by comparing and contrasting students and professionals' points of view on the same constructs. Results showed that professionals are urged to evaluate their interventions and to coordinate with governments to establish at the least minimum requirements that need to be respected by all of educational institutions in Lebanon. Developing standards for CG would seem useless if a quality assurance system was not implemented to ensure and control activities and services provided to help students with their career choice.

Triangulation Synthesis

Reporting findings from both studies complement the big picture and bring a broader understanding of the CG phenomena in the Lebanese context. In this section, quantitative and qualitative data from the current research will be triangulated in order to give a meaning to the relationship between the different factors presented in the holistic framework of this study. By doing so, the research provides an integrative paradigm of the status of CG in Lebanon.

The first point to discuss within this section is the consistency of CG provisions between different higher educational institutions and its effectiveness. In fact, when the researcher attempted to examine professionals' profiles, she found out that professionals working in the same institutions had different perceptions. For instance, three professionals working for the same private institution (referred as institution 3 in this study) loaded on three different factors showing an inconsistent vision and a weakened identity of CG as a profession (D. Hughes, 2013). As discussed in previous chapters, the misperception of the role of CG led to entitling individuals upholding qualifications irrelevant to the CG field to provide services to help students with their career decisions (A. G. Watts, 1994). This raises the question of the consistency and adequacy of students' support and increases the probability of mistakes and negative future images. While policies are not asserting its role in securing equal CG for all students, the CG profession suffers from an increased level of inconsistency between higher education qualifications and systems. Nevertheless, differences in terms of students' CM within the same educational institution or between different institutions regardless of their type (private or public) were not highly reported in the quantitative study. This indicates a non-significant positive impact of all CG systems used within the Lebanese educational institutions. Consequently, experiencing, what has been described by (D. Hughes, 2013) as a deprofessionalisation , has dominated the CG scene and

has led to students' discontentment. An indicator-based approach from the "Career guidance opinion survey" (2011) supported this assumption. The use of this survey to collect opinions from students allowed to describe the guidance services (Scheerens, Glas, & Thomas, 2003) and to show that the majority of university students from both public and private universities reported a great deal of dissatisfaction with their university CG services (see Appendix B).

The second point to report within this section is related to evidence concluded from the quantitative study in support of the provision of career services. Cook, Heppner, and O'Brien (2004) claimed that career practitioners must recognise their role in promoting students' career development by actively helping them overcome obstacles that hinder their career decision-making that would meet their aspirations and capabilities. To do so, practitioners must always be updated on the number of social factors relevant to a specific society that influences CG intervention (Herr, 2001b) Thus, findings from the quantitative study provide further and updated evidence on the socio-economic factors that affect students' CM thus CG practices. For instance, reporting *wasta* (influence) as a major factor affecting CM informs CG professionals in Lebanon on dominated cultural values that are still shaping the notion of career development. Ignoring such findings will hinder social justices and impede academic, career, and personal social development (Lee, 1998). Therefore, CG professionals are invited to develop services that help students challenge such social barriers and make adequate career decisions.

Furthermore, demonstrating that there exists no remarkable significant differences between different CG systems highlights the weaknesses of such systems and calls for urgent measures to be taken to improve the status of CG in Lebanon. Arthur (2008) found that developing standards of practice are valuable. The author also stated that, in Canada for instance, standards and guidelines for career development practitioners identified five benefits: "... (a) enhancing the quality of services, (b) recognising career development as a

distinct and specialised discipline, (c) advocating for quality career development services, (d) supporting progress and consistency in career development educational programmes, and (e) promoting accountability in service delivery” (pp. 306).

Limitations

CRM. At first, the researcher aimed to have a representative sample for each higher education institution in Lebanon; however, the non-cooperation of several universities and the nature of the additional tasks that was requested from each university made this endeavour impossible. To address this issue, the researcher decided to increase the sample size in order to increase the chances of each individual of the target population of being selected, therefore increasing the likelihood of the representativeness of more segments of the university student population. Consequently, the researcher chose and was able to have a random national representative sample between private and public universities.

Furthermore, another issue which must be considered when interpreting the results of the CRM questionnaire is related to its validity and reliability. It is known that a type I error occurs when the number of hypotheses is increased, which may result in the rejection the null hypothesis. To counteract this issue, a Bonferroni correction method needs to be used to demonstrate that the statistically significant results are unlikely to have occurred by chance. This correction is calculated by dividing .05 by the number of tests performed. Conducting the analysis of regression model a second time using the Bonferroni method where $p = .0007$ showed that CM components remained significant predictors of CM (see Table 5).

Future studies are needed to assess other types of validity such as discriminant validity in order to strengthen the rationality and applicability of the CRM arguments made within this study. Addressing the reliability results shows that the reliability of the WWK subscale was weak and needs further investigation and improvement. An additional issue

raised with this respect is the problem of response sets. Even though a mixture of negative and positive worded items were included in this questionnaire, the students' responses may be biased by their subjectivity, thus misleading the questionnaire results (Bell, 1996). To illustrate, social desirability can be one of the sources of bias (Pinkney & Bozik, 1994). Thus, including individual's management tendencies scales, which evaluate individuals' inclinations toward the projection of ideal images of themselves during social interactions (Podsakoff & Organ, 1986) would be useful in this context.

Taking into consideration that the CM construct has been conceptualised and investigated within western cultures, its definition and interpretation within the Lebanese culture might differ (M. B. Watson, 2008). To illustrate, the career exploration subscales were perceived by students in Lebanon as activities intended to explore careers by discussing career issues with parents, relatives, and/or friends. Therefore, declaring that all items included in the CRM represent the whole range of aspects of CM can not be completely assumed. These items were developed based on what has been found in the literature and based on the researcher's personal experience and research. Given that only twenty-five items were selected, it can be argued that not all CM concepts are incorporated in the questionnaire. For instance, some researchers would suggest adding more career exploration behaviours to the CE subscales.

In addition, the lack of systematic reviews and comprehensive studies on CG in the Lebanese context hindered the investigation of the researcher which motivated the to development of a new framework and tool for the present study.

In light of this criticism and as already stated in chapter 1, conducting research in the region is largely limited due to several reasons including the collection of data from participants (Sultana & Watts, 2008).

Q Method. Gathering data relies heavily on the CG professionals' participation and their perception of finding such study a useful. Indeed, only 15 career professionals attended and completed Q-grids from the 50 who confirmed their presence. The Q statements selected and developed by the researcher might be induced from the subjectivity of the researcher (Daniel, 2000). In addition, the forced choice concept of the Q method was found to be frustrating by participants and the length of the Q process was found by Dziopa and Ahern (2011) to decrease participants' involvement. The judgemental attitudes may vary between participants leading to multiple possible understandings and interpretations (Shinebourne & Adams, 2007).

Mixed methodology. Going beyond the conventional dominance of a particular research method implicated several challenges to be faced by the researcher when conducting this academic research. Applying a mixed methodology requires having skills to collect, analyse, and interpret data in multiple ways in order to give a more holistic understanding of the research topic. A lack of solid grounding in mixed methodology could hinder the researcher's ability to in convince others about the benefit of such a methodology and raise some concerns about the corroboration of the study's evidence. Yet, being supervised by someone who is familiar with conducting mixed methodologies would attenuate any negative consequences (Creswell & Plano Clark, 2011). Furthermore, conducting quantitative and qualitative methods within one study is both time and cost consuming. Indeed, collecting a large volume of data using different procedures highlights the time spent during the deductive analysis approach to come up with valuable outputs from a very broad knowledge base (Carr, 1994). It is worthy to mention as well that the researcher's objectivity, influenced by his reflexivity (Saunders et al., 2007), would influence the mixture of data (Green & Preston, 2005) and bias the results of the study. Thus, further confirmatory studies would be useful to validate the outcomes of this research and elucidate good examples about mixed methods.

One other potential problem that bears mentioning is the issue of mixing quantitative and qualitative data. During the phase of results triangulation, a need arose to add (1) some items related to the socio-economic factors of students into the Q study and (2) some others relevant to the students' perceptions of the provision of CG services into the quantitative study. This sounds suitable for the purpose of the current study and would facilitate the work of the researcher when mixing results to explain one major phenomenon.

Implications

Implications for public policy. “Why do elephants never ride bikes? cz they don’t have thumbs to ring the bell”, this shocking statement from one of the students from the “Career guidance opinion survey” (2011) ironically stressed the absence of public policy on the CG scene. In fact, the weakness or absence of strategic leadership was emphasised by Sultana & Watts (2007, 2008) in their review on CG in the MEDA region. As stated in chapter 1, the Lebanese MEHE formulated a strategy were CG is a priority (Abdul Ghani, 2006). Unfortunately, results from the current study confirmed empirically that action has still not been taken with this respect. The latter was supported as well by the post-sorting information study and previous study and urged the government to act on this crucial issue. In contrast, the Q results showed that professionals did not accord top priority to public policy and governmental guidelines and interventions. This might be due to the lack of confidence and trust in the Lebanese government following several implementation policies and initiatives failures throughout the years.

Based on the above the researcher recommends that government (1) launches a detailed national audit for CG provision, (2) updates the current fragmented CG legislation and making it more comprehensive, (3) activates CG across national public educational institutions, (4) develops new national CG policies and procedures based on the latest

evidence in the field, (5) creates awareness about the importance of CG, (6) considers CG as a priority in the country development plan, (7) allocates needed funds for CG in the yearly governmental budget, (8) forms an independent body so as to ensure that CG providers are applying and respecting these policies and standards, (9) includes CG in the school curricula, (10) and invites concerned parties to cooperate for a common framework for a CG provision.

Implications for career guidance profession in Lebanon. The most striking findings from the combination of all results are (1) the awareness of CG professionals and students of what CG professionals need to do (2) and the significant demand from both parties for a national CG professional body to set professional standards and protect the identify of qualified accredited career practitioners.

Based on the above, the researcher suggests the following:

- Creation of a Career Development Institute that links education institutions, employers, and the government;
- Development of national CG professional standards that includes the qualifications and training requirements for practitioners accreditation;
- Audit of the current university programmes that are related directly or indirectly to CG and counselling as well as private training providers in CG and counselling in order to control compliance of the above standards;
- Creation of a comprehensive assessment with international experts in CG to evaluate the knowledge and skills of current professionals in order to develop a training and coaching program to fill in the gap;
- Development of a CG dedicated Master's program based on international and regional best practices in this matter;

- Development of career services that suit students' needs and take into consideration the effect of socio-economic factors reported in the current study;
- Organisation of a wide range of awareness campaigns addressed to students, professionals, and any person involved in the guidance process. Such campaigns would encompass:
 - The need for professionals to coordinate with government and policy-makers in order to create or update CG policies and standards, and to provide evidence on the effectiveness of career services from for instance cost-benefits data.
 - The need for parents or other individuals involved in the guidance of students to consider students' personal aspirations and interests when assisting them with their career choice. They should as well retain themselves from providing advice based on their subjective beliefs.

In order for professionals to understand the implications of these recommendations or any future suggestions reported from empirical studies, a legislative act is needed to abolish the existing CG systems used within Lebanese educational institutions and to uphold common standards of professionalism and ethics. To argue, learning from international bodies and considering lessons learned from past experiences seem valuable within the Lebanese context. This was reported by Sultana and Watts (2008) in their study in the MEDA region. Thus, looking at the history of other countries such the UK shows that careers professionals acknowledged the need for a unified voice and standards when the new Education Act emerged (D. Hughes, 2013).

Implications for research.

Creation of a new tool. The quantitative study described the development of the CRM, a measure to assess CM. It provided evidence on the psychometric properties of this instrument. It contributed to its validity by presenting supported results on construct validity demonstrated by the split-sample approach, convergent validity established by unidimensionality of the CM construct, and criterion validity confirming the prediction of CM from CP, CDM, CE, and WWK. Furthermore, considering the reliability as one form of validity and succeeding in reporting the unidimensionality of the CRM (scales of second order loaded into one construct which is the CM) shows that this instrument is reliable. Yet, future studies are needed to augment the Cronbach's alpha of the WWK subscale.

To foster the development of the CRM questionnaire, an assessment of its use in practical settings is important.

Updated evidence. In the current study, the CRM questionnaire enabled the researcher to assess the moderation impact of the socio-economic factors found in the literature affecting the CM of students and to update the findings of previous studies. This would inform career professionals and policy-makers about important external factors that need to be taken into consideration when developing career services.

Furthermore, findings from a mixture of studies undertaken within the current research expanded knowledge about the CM of students, indicating that a reasonably high level of maturity does not necessarily imply a readiness for career decision-making. The delivery of CG services would respond to this need and assist students in their career decision-making process. However, evidence reported in the above questions the effectiveness of the current career services delivery and development and urges policy-

makers and researchers to provide further evidence on this matter and develop solutions accordingly.

To conclude, evidence within this study was confirmatory and complementary to the literature. It provided further insights for future studies within the field of CG.

Framework validation. A combination of findings in the literature and personal research, experience, and observations drove the researcher to develop a framework that would move forward students' CR. Yet, the validation of this framework using a Structural Equation Model (SEM) would be useful to estimate the causal equation between different pillars involved in students' CR.

Regional validation of CRM. Following the findings of Sultana and Watts (2007, 2008), countries from the MEDA region share the same cultural relevance in career theory. Therefore, testing the validity of CRM in the MEDA region would further the development of this questionnaire and confirm its usability on a wider spectrum of individuals while respecting the specificity of the contexts.

Mixed methodology & Q method. Originality and newness to the field: the researcher's goal with the current study was to provide further empirical evidence to justify the benefits of using mixed methodology in CG research and to suggest an optimal research design for future studies within the Lebanese settings. Indeed, the very large sample studied in the quantitative study allowed the researcher to assess objectively the university students' CM in Lebanon and generalise findings over the Lebanese population. Yet, this method appeared weak in providing a comprehensive understanding of how CG services influenced students' career choices. Hence, the qualitative study complemented the first study by strengthening its weaknesses and bringing further meaning to these findings. Interpreting

results from different perspectives provided evidence and helped answer questions that can not be answered by solely one of method. Moreover, mixing methods in this study was crucial in attempting to better understand the relationship between culture and psychology while simplifying the complexity of human behaviours in contexts (Bartholomew & Brown, 2012).

Finally, evaluating a holistic framework using a mixture of methods provides further empirical evidence to justify the advantages of using mixed methodology in the field of CG. Yet, to do so, expanded knowledge and experience in conducting quantitative and qualitative data were required and being supervised by an expert in mixed methodology helped the researcher develop her skills and prepare for research.

Based on extensive research on PsycINFO, the researcher did not find any CG study using Q method. This will add to the originality of the present study and provide more evidence for the usefulness of Q method in CG research. This method was indeed perceived positively by some of the participants' study.

Conclusion

To conclude, the current study presented a new framework for policy-makers, career professionals, and students in Lebanon that reflects a new approach to reshape the provision of CG by analysing the context in which they operate. It produced valuable evidence for the enhancement of the status of CG in Lebanon to increase students' opportunities to develop a stronger bond with their community (Savickas, 1993). Many students in the Lebanese context feel forced to choose the job that best satisfies their economic needs (Blustein, 2001); and within these findings, the provision of CG services remain inadequate and incapable of changing students' belief in this regards. The absence of policies, standards, guidelines, and quality control systems combined with a lack of skills and knowledge are the root causes of poor career services provision. Political and economic challenges in Lebanon have always

been taken as an excuse for inaction, which hindered the implementation of current and future recommendations. What has been forgotten or overlooked is that CG was constantly reflecting political, economic, cultural, educational, and other contexts and its effectiveness is one of the solutions that resolves university leavers' concerns and contributes to the development of the society as a whole (A. G. Watts, 2000). Therefore, policy-makers and the Lebanese government are urged to take actions in this respect. To do so, findings from this study reflecting the reality of career professionals' work and needs in terms of CG provision and listing the number of socio-economic factors affecting students' CR resulted in a list of recommendations, which can be integrated into the policy-makers' agenda. However, if policy-makers will remain latent and inactive within this field, private initiatives are encouraged to take the lead and revamp CG in Lebanon. It must be noted that results from this study cannot be taken for granted and the absence of an on-going research on CG will further exacerbate existing challenges. Researchers and scholars are encouraged to provide further evidence for a greater influence on the concerned bodies.

Reflective Log

My Story, My Journey, My Dream!

Education has been an important factor in my life since childhood. In my culture, it is considered one of the most important assets one could ever have and therefore it's an obligation for each generation to transmit it to its youngsters. My parents like many, sacrificed a lot and overcame a lot of challenges in times of war, socio-political & economic problems in Lebanon to provide me, my sister and brother with the best education in prestigious national and international higher education institutions. Going for a doctorate degree was the natural next step following the completion of my Masters degree in Paris in 2005; yet, and on purpose, I did not enrol right away in order to gain experience and take my time to choose the right research subject. Different themes came to my mind throughout the years: from Strategic HRM, to Organisational Behaviour, and finally Career Guidance. Several facts and previous experiences triggered my interest in career guidance as a good subject to work on: The first trigger was the ETF report on career guidance in the Mediterranean region in which Lebanon appeared to be one of the reviewed countries; The second was my personal experience as an ex-high school and university student; The third was my experience in guiding my university students; The fourth was the scarcity of research in career guidance in Lebanon; The fifth was the absence of a national body of reference for career guidance in Lebanon. The sixth and last was my weak knowledge and underdeveloped skills in research methods. Enrolling in a doctorate program was a way for me to work on myself and develop my research skills and academic writing skills. I decided to focus on university students because of my bad experience with career guidance as a student at the top two universities in Lebanon, and later based on my experience as an instructor at two major universities in Lebanon where I frequently handled different career guidance situations.

In the following section, I will try to reflect on my personal experience with respect to the research process while aiming to expand my knowledge. I will try to report in what ways my cultural, social, professional, educational and biographical backgrounds influenced my perception, experience, and interpretation while conducting this study. In the cause of a research questioning, the poor career guidance provision and the roles of career professionals with this regard, it is worthy to discuss how research participants influenced the research process and its results. I faced unexpected challenges and obstacles while gathering data from participants who appeared to be unfamiliar with the different methods I used or not well receptive to research. Before launching the study, I had to get ethical approval from the University Ethics Committee (UREC) (see Appendix AB).

To study the provision of career guidance services in Lebanon, I believed that gathering data from individuals who provide such services would be valuable in the context of this study. It was important at this stage to investigate career professionals' feelings and subjectivities about the studied topic. Knowing that career guidance laws are present yet not applied triggered me to adopt a perspective that involves looking at individuals within the context in which they operate. To choose the most appropriate method to interpret this dynamic interaction between career professionals and the world of career guidance was challenging. In fact, living the dilemma between choosing a method that suits my skills and minimizes any bias resulting from a lack of experience, and a method that suits the context of the study and its appropriateness to answer the research question, was stressful at that time. To cope with this challenge, I had to discuss the latter with my supervisor and read about a wide range of existing qualitative methods. My choice was bound by the time and place where the study was conducted. Individuals, influenced by the Lebanese culture, are usually driven by a need for social desirability. Therefore, conducting interviews, which is one of my areas of expertise, appeared inappropriate within the context of this study since it could bias

the results by reporting answers that are acceptable by the society rather than subjective opinion. After having thoroughly read about the different qualitative research methods, I found that the Q method is a unique one that was never used in career guidance research in Lebanon. This method showed some benefits in providing highly reliable data and eliminating issues related to missing data and social desirability. Another benefit is the active involvement aspect of this method where Q statements are developed from participants' opinions and then organized by the participants themselves. The latter are usually motivated and more receptive to research when conducting Q. In order to conduct this study with a professional and correct manner, my supervisor put me in contact with an expert in this field who encouraged and assisted me during the research process.

Developing the Q statements was the first step of the study process. Being the Head of the Work and Organisational Psychology section at the Université Saint-Joseph involved providing lots of guidance sessions to students and helping them with their career decisions. Therefore, I discovered that my implication in this area might have been affected by my personal perspective gained from my experience. Consequently, I might have never been able to fully escape from my subjectivity and referring to career experts appeared logical to validate my beliefs and predilections. At that time I thought that if my ideas would overlap with those of career guidance experts, this would mean that I will be able to write statements that can be understood by participants and in turn understand participants' perceptions and feelings during the sorting process. This step helped me to revise my assumption and come to make sense of the career guidance phenomena particularly in Lebanon anew. The next step included the sampling procedure and participants invitation. It is critical during this step to define the inclusion and exclusion criteria for the study population in order to generalize the results to some extent. A considerable diversity in participants' profiles was needed in order to make sure that all opinions regarding the provision of career guidance are reported by the

study. Considering potential participants' perspectives was important in order to estimate the number of individuals who will accept to take part in this study. Usually, participants who accept to take part in a research hope to get out of it direct benefits or improvement to their profession and to the status of career guidance in Lebanon. Pitching the used language was therefore important when inviting these professionals. It was important at this stage to adopt a timely, methodical, and organized approach for participants' enlistment. Almost all career professionals working at educational institutions have been approached by phone and e-mail. I made sure to get an eventual agreement to participate in research so that I can meet the minimum overall response rate to validate the results. Out of 230 professionals, only 50 confirmed their attendance to the Q sorting day. Despite getting attendance promises, only 15 participants ended showing up on that day. Following such a reality shock, my enthusiasm to get the needed sample size for my research waned and I experienced a dominant feeling of despair and distress. I needed to maintain a sense of objectivity and reflect on my own strategy for data collection in the face of adversity. The solution was to remember that with a small sample the validity of the research might be at risk and results may be biased by non-responses rates. The golden rule in such circumstances was never to give up and to reinitiate several attempts at contacting potential participants using different methods of communication. My second attempt was to call potential participants and schedule appointments to conduct the Q sorting, but this time at their premises. Personal contact showed significant and yielded in a new success and thus achieving the required response rate.

The data collection phase required some personal attributes including conscientiousness, integrity, and meticulous attention to details. Demonstrating good interpersonal and communication skills during this phase was crucial in order to establish clear procedures for data collection. Using a presentation sounded the most adequate, clear,

and concise method to brief participants on the objective of the study, its data collection process, and finally its validity and relevance. The administrative support was essential during this phase to avoid unproductive data collection and reach willing collaborators. This included explanations about the nature of the procedure, obtaining informed consent, articulating the protection of participants' confidentiality, and assisting participants with impaired decision-making. Participants were given the needed time to comprehend the procedure and to give feedback before the data collection start. Chatting with participants while collecting data made me further appreciate the nature of my investigation, its relationship to my personal and professional life, and my relationship with participants who are experiencing the world of career guidance in Lebanon. Participants' perception of career guidance provisioning in Lebanon grabbed my attention and confirmed my ideas about the significant and profound adverse impact of building poor relationship with career guidance experience on future attempts to enhance the career guidance services provision in Lebanon. Many participants shared with me their experience with poor career guidance provisioning and highlighted the importance of having a body that will be responsible of enhancing the status of career guidance in Lebanon. This input appealed to me as I shared the same perception, and I felt that we had the very basic level of shared experience. In addition, participants have shown a great interest in the method employed and felt more engaged in the data collection procedure. All these opinions revealed promising in obtaining valid data that reflect a wide range of common subjectivity. I also could argue that this fact verified my success in building positive rapport with professionals and made them feel comfortable enough to share with me their thoughts and opinions.

The final step of this study consisted of analysing the data. In the absence of prerequisite knowledge and skills on how to conduct Q study and analyse its results prior to embarking on this study, obvious obstacles were latent and thus ready to appear in a research

encounter providing me with the opportunity to expand my research skills and knowledge. The guidance and directions from the expert, mixed with my thorough reading of Watts and Stenner (2012)'s book "Doing Q Methodological Research" I was able to overcome the data analysis obstacles. Giving meaning to the factor analysis results and the Q matrix was challenging, time-consuming and required from me great efforts. During the analysis procedure I felt powerless and uncertain as to how to proceed. Being assisted when conducting the analysis on PQMethod by the Q methodology expert massively helped me in generating the raw data. Furthermore, adopting the crib sheet method described by Watts and Stenner (2012) helped me in explaining and interpreting this data. Later on, to make sure that my analysis was correct, referring back to the expert put my mind at ease. Conclusions revealed from the analysis of this study founded a scientific knowledge confirmed my prejudice formed from my wider social, historical and cultural context. The provision of career guidance services in Lebanon is suffering from a lack of knowledge, skills, training, standards, guidelines, and policies. It is now the government's role to increase students' equal opportunities to access efficient career guidance services. While I understand that Lebanon is facing economical and political challenges that hinder any investment to enhance its career guidance status, I believe that the government is overlooking the positive impact that such efficient career guidance services might have on overcoming those challenges.

I was learning new research methods, and at the same time I was conducting the quantitative study. The latter was no less problematic, and required a lot of efforts, not on my research skills level, but on the validation of a new tool, the representativeness of the sample, and the generalizability of the results.

Career theories found in the literature were overwhelming and confusing. All of them have been criticized for their implications and limitations, which rendered my decision-making for the construct more challenging. Not to mention the wide range of existing tools to

evaluate these different constructs. There are many potential pitfalls in the identification and choice of suitable a construct for measuring students' readiness for career decision making. Problems with a measurement tool can affect the design of the study and the validity of data within the Lebanese context. The choice of a career maturity construct was founded on the number of studies that reported corroborative results validating the studied construct. Therefore, the construct of career maturity that was introduced and developed by Super appeared the most widespread and used by career guidance researchers. Yet, this construct's limitations in terms of coping with a changing world and cultural differences pushed me to develop a new tool inspired from this construct yet adjusted to suit the time in which the study is conducted. Designing a questionnaire at the time of research was found appropriate to answer the research question. The lack of research on career guidance in Lebanon burdened the design of a quantitative study. Fortunately, assisting students in conducting a small study in 2011 "Career guidance opinion survey" to discover students' opinion about career guidance services provided by their educational institutions, added a new layer to the formation of my prior understanding and showed how socio-economic factors have shaped students' career maturity. Results from this study, espoused with findings from few studies conducted in the Lebanese context, formed the questionnaire statements and shaped the study design. Validating the questionnaire was one of the most difficult tasks I needed to perform during my research study. From piloting to conducting the effective study, the sampling process suffered from associated issues of non-response and adequacy of the sample to represent the target population. Individuals that I have invited from my personal network during the pilot study were not receptive to research, therefore highlighting the number of obstacles that I will face during the data collection especially when attempting to reach people who are difficult to contact or people who are less motivated to enrol in such studies. Reflecting on this experience inspired me to take proactive actions and adopt different tools

to reach a wider population and meet the calculated sample size. In addition, for the aforementioned reasons, I needed to allocate time and money to achieve the desired sample size. I paid specific attention to obtaining a representative sample by getting the most recent statistics released by the government reflecting students' demographic characteristics. Indeed, I was anticipating a very low response rate should data collection be conducted the usual way and without effort. I therefore devised and executed multiple strategies to enhance that rate and minimize the non-response bias. Collaborating with Student Affairs and Career Guidance Offices at higher education institutions was helpful. To do so I needed to seek permission to broadcast the questionnaire, to provide information and explanation so collaborators know what to do, the required time they will be expected to allocate, and finally how results will be used. During this phase I experienced feelings of frustration especially during phases of low response rate that required from me to be flexible, proactive and creative in finding solutions (TV, hard copies, website, social media, etc.) to counter faced obstacles.

Even though I knew that cross-sectional studies are used to demonstrate correlations rather than causality, I believed that the current study would be valuable within an area where research is forgotten and underestimated. After collecting data from sufficient university students to meet the sample size, data analysis imposed new problems to overcome. Learning how to analyse quantitative data was achieved through back and forth discussions with my supportive supervisor who was able to provide me with objective advices based on her own experience of research and supervision. Indeed, designing a model involving moderation design largely challenged me. At the time of the research I lacked the knowledge and skills to design such a model and conduct such an analysis. Experience phases of distress and frustration accompanied me during the analysis. An extensive research helped me to widely understand the moderation model and carrying out analysis using new dialogues downloaded from the Internet. The latter was not enough, getting advice and confirmation of the

correctness of my analysis from my supervisor completed my learning and contributed to my knowledge in carrying new analysis while using new statistical testing.

Overall, carrying out the quantitative study triggered my interest in learning new avenues in analysing quantitative data and developing moderating research design. I believe that there are more aspects to explore in the data that was collected, such as studying thoroughly students' career maturity differences between and within educational institutions. By doing so, identifying institutions that have students with higher scores on career maturity would sound valuable in terms of in depth evaluation of their career guidance provision. In addition, longitudinal studies are highly required for further confirmation of the CRM validity.

One last challenge and avenue for learning is related to the conduct of mixed methodology. A wide range of mixed methodology designs was found in the literature. The choice of the most suitable one required me to employ my organization skills to estimate the time consumed to conduct the whole research and my reasoning skills in terms of evaluating the adequacy of design to the research question. While adopting the pragmatic paradigm and having some strong beliefs on the status of career guidance in Lebanon, the triangulated design was found the most appropriate one. Hence, new obstacles appeared in terms of comparing and contradicting qualitative and quantitative data. Making use of the research framework helped me a lot in matching between findings, and coming up with conclusions that complete the wider picture of the status of career guidance in Lebanon. Findings from the triangulation showed that many socio-economic factors that were previously considered as affecting students' career maturity no longer have the same impact. Yet, some others are still largely affecting students' career decision and the provision of career guidance services must take into consideration these findings. The enhancement of this provision is tightly linked to governmental efforts and investment. However, the latter remain dormant and non-active.

Last but not least, I truly believe that my two years journey at UEL transformed me as a professional practitioner. I am now a deep believer of the evidence based practice; I can tackle from now on challenges and assignments using sound references and a grounded work methodology. My aim now is to organise a conference with media coverage to present my findings, raise awareness, network with experts and professionals and try to raise funds in order to move things forward in Lebanon and potentially in the entire region.

My final note goes to my fellow researchers. One of the concrete effects of keeping a reflective log was to keep self-reflection that provides further insights for future research. In some instances my personal experiences, understanding and thoughts had an impact on the research design, data gathering, analysis and interpretation, and would possibly serve as a learning point for future studies. In what follows, I provide some changes examples that can be made, specifically to the research design in order to enhance the implications of any potential study on career guidance within the Lebanese culture.

For instance, when I analysed and interpreted the moderation effect of the 16 socio-economic factors from the quantitative study, I noticed the importance of narrowing the research question and focusing the data interpretation on a smaller number of socio-economic factors, and questioned the large number of factors that I have chosen. I would recommend researchers to consider a smaller number and provide a thorough analysis on each factor.

In addition, if I had to redo the quantitative study I will choose to go with a representative sample by private university. There were unforeseen outcomes of this issue that inhibited me from digging further in my data and compare and contrast the career readiness of different participants who are coming from different universities. While the study was not conceived in comparing different universities career guidance policies and procedures, engaging in written critical self-reflection had made me aware that future studies are needed to investigate further this aspect from the current study.

Furthermore, my primary strategy for collecting data for the qualitative data was to invite a very large number of professionals to a one-day event because it appeared unproblematic and effective in terms of receiving the needed number of responses. Unfortunately, this method was not effective as it seemed and required changes in the data collection strategy. Hence, researchers who would consider using a Q method are advised to collect data from participants by making appointment with each one separately and gather data by visiting them on their premises.

References

- Abdul Ghani, A. M. (2006). *Review of career Guidance policies/services in MEDA countries: Lebanon country report*. Unpublished raw data.
- Abdul Ghani, A. M. (2010). Education and business study Lebanon. Retrieved from: [http://www.etf.europa.eu/webatt.nsf/0/32B9767DF6FC085BC12578BC00306426/\\$file/E&Bs Lebanon Final.pdf](http://www.etf.europa.eu/webatt.nsf/0/32B9767DF6FC085BC12578BC00306426/$file/E&Bs%20Lebanon%20Final.pdf)
- Abdul-Reda, S. (2003). Higher education and the labor market: A graduates' tracer study: Lebanese Association for Educational Studies.
- Ackerman, P. L., & Heggstad, E. D. (1997). Intelligence, personality, and interests: Evidence for overlapping traits. *Psychological Bulletin*, 121(2), 219.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage.
- Akhurst, J., & Mkhize, N. J. (2006). Career education in South Africa. In G. B. Stead & M. B. Watson (Eds.), *Career psychology in the South African context* (2nd ed., pp. 139-153). Hatfield, Pretoria, South Africa: Van Schaik.
- Amundson, N. E. (2005). The potential impact of global changes in work for career theory and practice. *International Journal for Educational and Vocational Guidance*, 5, 91-99.
- Arnold, J. (1997). *Managing careers into the 21st century*. London: Paul Chapman.
- Arnold, J. (2004). The congruence problem in John Holland's theory of vocational decisions. *Journal of Occupational and Organizational Psychology*, 77(1), 95-113.
- Arthur, N. (2008). Qualifications standards for career practitioners. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (pp. 303-323): Springer.
- Arthur, N., & McMahon, M. (2005). Multicultural career counseling: Theoretical applications of the systems theory framework. *Career Development Quarterly*, 53(3), 208-222.
- Ayyash-Abdo, H., Alamuddin, R., & Mukallid, S. (2010). School counseling in Lebanon: Past, present, and future. *Journal of Counseling & Development*, 88(1), 13-17.
- Baddeley, J., & Singer, J. A. (2007). Charting the life story's path: narrative identity across the life span. In J. Clandinin (Ed.), *Handbook of narrative research methods* (pp. 177-202). Thousand Oaks, CA: Sage.
- Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental psychology*, 23(5), 611-626.
- Bandura, A. (1977). *Social learning theory*. New York: Prentice-Hall.
- Bardak, U. (2006). An overview of educational systems and labour markets in the Mediterranean region. 11, 103-125.
- Bartholomew, T. T., & Brown, J. R. (2012). Mixed methods, culture, and psychology: A review of mixed methods in culture-specific psychological research. *International Perspectives in Psychology: Research, Practice, Consultation*, 1(3), 177-190.
- Bell, S. (1996). *Learning with information systems: learning cycles and information systems development*: Routledge.
- Bezanson, M. L., & Riddle, D. I. (1995). Quality career counselling services: A developmental tool for organizational accountability. *Canadian Journal of Counselling*, 29(1), 3-13.
- Bimrose, J. (2004). Systems Theory. from <http://www.guidance-research.org/EG/imprprac/ImpP2/new-theories/systems-theory>
- Bird, A., Gunz, H., & Arthur, M. B. (2002). Careers in a complex world: The search for new perspectives from "new science". *Management*, 5(1), 1-14.

- Bloch, D. P. (2005). Complexity, chaos, and nonlinear dynamics: A new perspective on career development theory. *The Career Development Quarterly*, 53(March), 194-207.
- Blustein, D. L. (1988). A canonical analysis of career choice crystallization and vocational maturity. *Journal of Counseling Psychology*, 35(3), 294-297. doi: 10.1037/0022-0167.35.3.294
- Blustein, D. L. (2001). The interface of work and relationships: Critical knowledge for 21st century psychology. *The Counseling Psychologist*, 29, 179-192.
- Blustein, D. L., Phillips, S. D., Jobin-Davis, K., Finkelberg, S. L., & Roarke, A. E. (1997). A theory-building investigation of the school-to-work transition. *Counseling Psychologist*, 25(3), 364-402.
- Breen, L. J., & Darlaston-Jones, D. (2010). Moving beyond the enduring dominance of positivism in psychological research: Implications for psychology in Australia. *Australian Psychologist*, 45(1), 67-76. doi: 10.1080/00050060903127481
- Brewer, J., & Hunter, A. (1989). *Multimethod research: A synthesis of styles*. Thousand Oaks, CA: Sage.
- Brewer, J. M. (1942). *History of vocational guidance*. New York: Harper & Brothers.
- Bright, J. E. H., & Pryor, R. G. L. (2011). The chaos theory of careers. *Journal of Employment Counseling*, 46(4), 163-166.
- Brown, D. (1990). Summary, comparison, and critique of the major theories. In L. B. D. Brown, & Associates (Ed.), *Career choice and development* (2nd ed., pp. 338-363). San Francisco: Jossey-Bass.
- Brown, D. (2002a). Introduction to theories of career development and choice. Origins, evolution, and current efforts. In D. B. Associates (Ed.), *Career choice and development* (4th ed., pp. 3-23). San Francisco, CA: Jossey-Bass.
- Brown, D., & Brooks, L. (1984). *Career choice and development*: Jossey-Bass Publishers.
- Brown, M. (2004). Illuminating patterns of perception: An overview of Q-methodology. Retrieved from:
<http://www.sei.cmu.edu/pub/documents/04.reports/pdf/04tn026.pdf>
- Brown, S. R. (1980). *Political subjectivity: Applications of Q Methodology in political science*. New Haven, CT: Yale University Press.
- Brown, S. R. (1991). William Stephenson (1902-1989). *American Psychologist*, 46, 244.
- Brown, S. R. (1993). A primer on Q methodology. *Operant Subjectivity*, 16, 91-138.
- Brown, S. R. (1995). Q methodology as the foundation for a science of subjectivity. *Operant Subjectivity*, 18, 1-16.
- Brown, S. R. (1997). The history and principles of Q-methodology in psychology and the social sciences. Retrieved from:
<http://facstaff.uww.edu/cottlec/Qarchive/Bps.htm>
- Bussolari, C. J., & Goodell, J. A. (2009). Chaos theory as a model for life transitions counseling : Nonlinear dynamics and life's changes. *Journal of Counseling and Development*, 87, 98-107.
- Caracelli, V. J., & Riggan, L. J. C. (1994). Mixed-method evaluation: Developing quality criteria through concept mapping: Mixed-method Collaboration. *Evaluation Practice*, 15(2), 139-152.
- Carr, L. T. (1994). The strengths and weaknesses of quantitative and qualitative research: What method for nursing? *Journal of Advanced Nursing*, 20(4), 716-721. doi: 10.1046/j.1365-2648.1994.20040716.x
- Carson, R. D. (2011). *Pre-college career guidance and persistence at a small private university in Tennessee*. (Ph.D.), Old Dominion University. (3479679)
- Cheetham, G., & Chivers, G. (2005). *Professions, competence and informal learning*. Cheltenham, UK: Edward Elgar.

- Cherryholmes, C. H. (1992). Notes on pragmatism and scientific realism. *Educational Researcher*, 21(6), 13-17.
- Chisholm, L., & Hurrelmann, K. (1995). Adolescence in modern Europe: Pluralized transition patterns and their implications for personal and social risks. *Journal of Adolescence*, 18(2), 129-158.
- Cochran, L. (1997). *Career counselling: A narrative approach*. Thousand Oaks, CA: Sage Publications.
- Comrey, A. L. (1973). *A first course in factor analysis*. New York: Academic Press.
- Coogan, J., & Herrington, N. (2011). Q methodology: An overview. *Research in Secondary Teacher Education*, 1(2), 24-28.
- Cook, E. P., Heppner, M. J., & O'Brien, K. M. (2004). An ecological model of career development. In R. K. Conyne & E. P. Cook (Eds.), *Ecological counseling: An innovative approach to conceptualizing person-environment interaction*: American Counseling Association Press.
- Cordingley, L., Webb, C., & Hillier, V. (1997). Q methodology. *Nurse Researcher*, 4(3), 31-45.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA, US: Sage Publications, Inc.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Los Angeles: Sage Publications, Inc.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.): Sage.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209-240). Thousand Oaks, CA: Sage.
- Crites, J. O. (1965). Measurement of vocational maturity in adolescence: I. Attitude Test of the Vocational Development Inventory. *Psychological Monographs: General and Applied*, 79(2), 1-34.
- Crites, J. O. (1971). *The maturity of vocational attitude in adolescence*. Washington, DC: American Personnel and Guidance Association.
- Crites, J. O. (1978a). *Administration and use manual for the career maturity inventory* (2nd ed.). Montcrey, CA: McGraw-Hill/CTB.
- Crites, J. O. (1978b). *Theory and research handbook for the career maturity inventory*. Montcrey, CA: McGraw-Hill/CTB.
- Cross, R. M. (2005). Exploring attitudes: The case for Q methodology. *Health Education Research*, 20(2), 206-211.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. St Leonards, NSW: Allen and Unwin.
- Dannefer, D. (1984). Adult development and social theory: A paradigmatic reappraisal. *American Sociological Review*, 49(1), 100-166.
- Datta, L.-E. (1994). Paradigm wars: A basis for peaceful coexistence and beyond. *New Directions for Program Evaluation*(61), 53.
- Davis, D., & Braithwaite, R. (1990). *Career education in Australian schools*. Ryde, Sydney: CREW.
- Dawis, R., & Lofquist, L. (1984). *A psychological theory of work adjustment: An individual differences model and its applications*. Minneapolis: University of Minnesota Press.
- DeFillippi, R. J., & Arthur, M. B. (1994). The boundaryless career: a competency-based prospective. *Journal of Organizational Behavior*, 15(4), 307-324.

- Del Corso, J., & Rehfuß, M. C. (2011). The role of narrative in career construction theory. *Journal of Vocational Behavior*, 79(2), 334-339.
- Dellinger, A. B., & Leech, N. L. (2007). Toward a unified validation framework in mixed methods research. *Journal of Mixed Methods Research*, 1(4), 309-332.
- DeVellis, R. F. (1991). *Scale Development: theory and applications* (Vol. 26). Newbury Park: Sage.
- Donner, J. C. (2001). Using q-sorts in participatory processes: An introduction to the methodology. In Unavailable (Ed.), *Social Analysis: Selected Tools and Techniques* (Vol. 36, pp. 24-59). Washington, DC: The World Bank, Social Development Department. Retrieved from <http://siteresources.worldbank.org/INTCDD/Resources/SAtools.pdf>.
- Dziopa, F., & Ahern, K. (2011). A systematic literature review of the applications of Q-technique and its methodology. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 7(2), 39-55.
- Ebberwein, C. A., Krieshok, T. S., Ulven, J. C., & Prosser, E. C. (2004). Voices in transition: Lessons on career adaptability. *Career Development Quarterly*, 52(4), 292-308.
- Eden, S., Donaldson, A., & Walker, G. (2005). Structuring subjectivities? Using Q methodology in human geography. *Area*, 37(4), 413-422.
- Ellingsen, I. T., Størksen, I., & Stephens, P. (2010). Q methodology in social work research. *International Journal of Social Research Methodology: Theory & Practice*, 13(5), 395-409.
- Engelland, B. T., Workman, L., & Singh, M. (2000). Ensuring service quality for campus career services centers: A modified SERVQUAL scale. *Journal of Marketing Education*, 22(3), 236.
- Erikson, E. H. (1959). *Psychological Issues. Identity and the life cycle* (Vol. 1). Oxford, England: International Universities Press.
- European Lifelong Guidance Policy Network. (2011). Building an EU quality assurance framework: Evidence and impact. Finland: University of Jyväskylä.
- Evetts, J. (2005). *The management of professionalism: A contemporary paradox*. London: Kings College London.
- Fend, H. (1994). The historical context of transition to work and youth unemployment. In A. C. Petersen & J. T. Mortimer (Eds.), *Youth unemployment and society* (pp. 77-94). New York,: Cambridge University Press.
- Field, A. (2009). *Discovering statistics using SPSS*. London: Sage.
- Fleihan, A. (2011). *The career maturity of Lebanese grade 12 students*. (Master's Thesis), American University of Beirut, Lebanon. Retrieved from <https://scholarworks.aub.edu.lb/handle/10938/8670>
- Fleihan, A. S. (2011). *The career maturity of Lebanese grade 12 students-by Abir Suleiman Fleihan*.
- Ford, M. E. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Newbury Park, CA: Sage.
- Fouad, N. A. (1988). The construct of career maturity in the United States and Israel. *Journal of Vocational Behaviour*, 32, 49-59.
- Freeman, S. C. (1993). Donald Super: A perspective on career development. *Journal of Career Development*, 19(4), 255-264.
- Gallagher, K., & Porock, D. (2010). The use of interviews in Q methodology card content analysis. *Nursing Research*, 59(4), 295-300.
- Gallagher Tuleya, L. (2007). *Thesaurus of psychological index terms* (11th ed.). Washington, DC: American Psychological Association.

- Gardner, D. C. (1981). Career maturity and locus of control: Important factors in career training. *College Student Journal, Fall*, 239-246.
- Gergen, K. J. (1994). *Realities and relationships: Soundings in social construction*. Cambridge, MA, US: Harvard University Press.
- Ghandour, M. A. (1991). *Evaluation of the Hariri Career Guidance Center at the American University in Beirut*. (51), ProQuest Information & Learning, US. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1992-70656-001&site=ehost-live> Available from EBSCOhost psyh database.
- Giddens, A. (1991). *Modernity and self-identity in the late modern age*. London: Polity Press.
- Glavin, K., & Reh fuss, M. (2005). *Vocapher: A Web-Library of Free Career Inventories*. Paper presented at the American Counseling Association Conference, 7.
- Gleick, J. (1987). *Chaos: Making a new science*. New York: Peguin Books.
- González López, I., & Martín Izad, J. F. (2004). La orientación profesional en la Universidad, un factor de calidad según los alumnos [Professional guidance in university, a quality factor according to students]. *Revista Española de Orientación y Psicopedagogía*, 15, 299-315.
- Gothard, B., Mignot, P., Offer, M., & Ruff, M. (2001). *Careers guidance in context*. London: Sage.
- Gottfredson, L. S. (1981). Circumspection and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28, 545-579.
- Gould, S. (1979). Age, job complexity, satisfaction, and performance. *Journal of Vocational Behavior*.
- Green, A., & Preston, J. (2005, 07//). Editorial: Speaking in tongues—Diversity in mixed methods research, Editorial. *International Journal of Social Research Methodology*, pp. 167-171. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=17321489&site=ehost-live>
- Guichard, J., & Lenz, J. (2005). Career theory from an international perspective. *Career Development Quarterly*, 54(1), 17-28.
- Gupta, N. (1987). Career maturity: A function of grade and sex. *Indian Psychologist*, 4.
- Hackett, G., & Watkins, E. (1995). Research in career assessment: Abilities, personality, interests, decision making, and career development. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational behavior* (2nd ed., pp. 181-215). Hillsdale, NJ: Erlbaum.
- Hajj, F., & Hamadeh, N. (1993). Career guidance center—American University of Beirut. *Journal of Career Development*, 20(1), 57-60.
- Hall, D. T. (2002). *Careers in and out of organizations* (Vol. 107). Thousand Oaks, CA: Sage.
- Hansen, E. (2006). *Career guidance: A resource handbook for low-and middle-income countries* Retrieved from http://www.ilo.org/youthmakingithappen/PDF/career_guidance.pdf
- Hanson, W. E., Creswell, J. W., Plano Clark, V. L., Petska, K. S., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224-235.
- Harden, A., & Thomas, J. (2005). Methodological issues in combining diverse study types in systematic reviews. *International Journal of Social Research Methodology: Theory & Practice*, 8(3), 257-271.
- Harré, R. (1986). *The social construction of emotion*. Oxford: Blackwell.
- Harren, V. A. (1979). A model of career decision making for college students. *Journal of Vocational Behavior*, 14(2), 119-133.

- Harris, M. (2000). Developing modern higher education careers services. Report of a review group for the department for education and employment. London: Stationery Office.
- Hashemi, P. T. (1981). *The factor structure of the Eysenck Personality Questionnaire and the 16 Personality Factor questionnaire*. University of Exeter.
- Hays, A. I. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. The Guilford Press.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and brain sciences*, 33(2-3), 61-83.
- Herr, E. L. (1997). Perspectives on career guidance and counselling in the 21st century. *Educational and Vocational Guidance*, 60, 1-15.
- Herr, E. L. (2001a). Career development and its practice: A historical perspective. *The Career Development Quarterly*, 49(3), 196-211.
- Herr, E. L. (2001b). *The Costs/Benefits of Career Development Interventions: A practitioner's Perspective*. Paper presented at the Second International Symposium on Career Development and Public Policy, Vancouver, Canada.
- Herr, E. L. (2013). Trends in the History of Vocational Guidance. *Career Development Quarterly*, 61(3), 277-282. doi: 10.1002/j.2161-0045.2013.00056.x
- Herr, E. L., & Cramer, S. H. (1984). *Career guidance and counseling through the life span: Systematic approaches* (2nd ed.). Boston, MA: Little Brown.
- Hiebert, B. (2004). *Perspectives on guidance and social inclusion in a global society*. Paper presented at the Proceedings of the International Conference on Guidance, Social Inclusion, and Career Development, A Coruna, Spain.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Holland, J. L. (1985a). *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* (3rd ed.): Psychological Assessment Resources.
- Holland, J. L., & Gottfredson, G. (1975). Using a typology of persons and environments to explain careers: some extensions and clarifications (pp. 53). Baltimore, Maryland: The Johns Hopkins University.
- Hotchkiss, L., & Borow, H. (1990). Sociological perspectives on work and career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2nd ed.). San Fransisco, CA: Josey-Bass.
- Hove, O. (2002). Brukermedvirkning – Hindringer og muligheter [User participation – Obstacles and possibilities]. *Embla*, 2, 44-52.
- Howieson, C., & Semple, S. (2013). Career education. In T. G. K. Bryce, W. M. Humes, D. Gillies, & A. Kennedy (Eds.), *Scottish education: Referendum* (4th ed.). Edinburgh: Edinburgh University Press (CES Ref 1219).
- Hughes, D. (2004). Creating evidence: building the case for career development. *The Career Counsellor Journal*, 16, 2.
- Hughes, D. (2013). An expanded model of careers professional identity: Time for change? *British Journal for Guidance and Counselling*, 41(1), 58-68.
- Hughes, H., & Gration, G. (2009). Evidence and impact: Careers and guidance related interventions. Retrieved from: http://www.eep.ac.uk/DNN2/Portals/0/IAG/interactiveDocument v20_web.swf
- Jacobs, M. (1999). *Psychodynamic counselling in action*. London: Sage.
- Jencks, C. (1979). *Who gets ahead? The determinants of economic success in America*. New York: Basic Books.

- Johnson, P., & Duberley, J. (2003). Reflexivity in management research. *Journal of Management Studies*, 40(5), 1279-1303.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1, 122-133. doi: 10.1177/1558689806298224
- Johnson, T. J. (1972). *Professions and power*. London: Macmillan Press Ltd.
- Jones, L. K., & Chenery, M. F. (1980). Multiple sub-types among vocationally undecided college students. *Journal of Counseling Psychology*, 27, 469-477.
- Juntunen, C. L., Barraclough, D. J., Broneck, C. L., Seibel, G. A., Winrow, S. A., & Morin, P. M. (2001). American Indian perspectives on the career journey. *Journal of Counseling Psychology*, 48(3), 274-285.
- Kant, I. (1781). *The critique of pure reason*. Retrieved from <http://oll.libertyfund.org/titles/1442>
- Kasim, R., Alexander, K., & Hudson, J. (2010). A choice of research strategy for identifying community-based action skill requirements in the process of delivering housing market renewal. University of Salford, UK: Research Institute for the Built and Human Environment.
- Kelle, U. (2006). Combining qualitative and quantitative methods in research practice: purposes and advantages. *Qualitative Research in Psychology*, 3(4), 293-311. doi: 10.1177/1478088706070839
- Kenny, D. (2013). *Moderation*. Retrieved from <http://davidakenny.net/cm/moderation.htm>
- Kidd, J. M. (2006). *Understanding career counselling: Theory, research and practice*. London: Sage.
- Kidd, J. M. (2008). Mental capital and well-being. Making the most of ourselves in the 21st century *State-of-Science Review SR-C10: Careers at work*. London: The Government Office for Science.
- Killeen, J., White, M., & Watts, A. G. (1992). The economic value of careers guidance. London: Policy Studies Institute.
- King, S. (1989). Sex differences in a causal model of career maturity. *Journal of Counseling and Development*, 68(2), 208.
- Kolb, D. A., & Plovnick, M. S. (1977). The experiential learning theory of career development. In J. V. Maanen (Ed.), *Organisational careers: Some new perspectives*. London: Wiley.
- Kopelman, R. E., & Glass, M. (1979, 1979/08//). *Test of Daniel Levinson's theory of adult male life stages*.
- Kothari, C. (2009). *Research methodology: Methods and techniques*: New Age International.
- Krathwohl, D. R. (1993). *Methods of educational and social science research: An integrated approach*. New York, NY, US: Longman/Addison Wesley Longman.
- Krumboltz, J. D. (1994). The Career Beliefs Inventory. *Journal of Counseling & Development*, 72, 424-428.
- Krumboltz, J. D. (2009). The happenstance learning theory. *Journal of Career Assessment*, 17(2), 135-154.
- Krumboltz, J. D., Foley, P. F., & Cotter, E. W. (2013). Applying the happenstance learning theory to involuntary career transitions. *Career Development Quarterly*, 61(1), 15-26.
- Kuijpers, M., Meijers, F., & Gundy, C. (2011). The relationship between learning environment and career competencies of students in vocational education. *Journal of Vocational Behavior*, 78(1), 21-30.

- Lairio, M., & Penttinen, L. (2006). Students' career concerns: Challenges facing guidance providers in higher education. *International Journal for Educational and Vocational Guidance*, 6(3), 143-157.
- Leahey, T. H. (1987). *A history of psychology: Main currents in psychological thought* (2nd ed.). Englewood Cliffs, NJ, US: Prentice-Hall, Inc.
- Lee, C. C. (1998). Counselors as agents of social change. In C. C. Lee & G. R. Walz (Eds.), *Social action: A mandate for counselors* (pp. 3-14). Alexandria, VA: American Counseling Association.
- 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.
- Leong, F. T. L., & Serafica, F. C. (2001). Cross-cultural perspective on Super's career development theory. In F. T. L. Leong & A. Barak (Eds.), *Contemporary models in vocational psychology* (pp. 167-205). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Leung, S. A. (2008). The big-five career theories *International handbook of career guidance* (pp. 115-132): Springer.
- Levinson, D. J. (1977). The mid-life transition. *Psychiatry*, 40, 99-112.
- Levinson, D. J., Darrow, C. N., Klein, E. B., Levinson, M. H., & McKee, B. (1978). *The seasons of a man's life*. New York: Alfred A. Knopf.
- Levinson, E. M., Ohier, D. L., Caswell, S., & Kiewra, K. (1998). Six approaches to the assessment of career maturity. *Journal of Counseling and Development*, 76(4), 475.
- Lewin, C., & Colley, H. (2011). Professional capacity for 14–19 career guidance in England: some baseline data. *British Journal of Guidance and Counselling*, 39(1), 1-24.
- Luzzo, D. A. (1993). Predicting the career maturity of undergraduates: a comparison of personal, educational, and psychological factors. *Journal of College Student Development*, 34, 271-275.
- Luzzo, D. A. (1995). Gender differences in college students' career maturity and perceived barriers in career development. *Journal of Counseling and Development*, 73, 319-322.
- Lynne, M., & Riddle, D. (1995). Quality career counselling services: A developmental tool for organizational accountability. *Canadian Journal of Counselling*, 29, 3-13.
- Magnusson, K., & Roest, A. (2004). *The efficacy of career development interventions: A synthesis of research.*, The University of Lethbridge, Canada.
- Maguire, M., & Killeen, J. (2003). Outcomes from career information and guidance services. Retrieved from: <http://www.oecd.org/edu/innovation-education/2495163.pdf>
- McHoul, A., & Grace, W. (1995). *A Foucault primer: Discourse, power and the subject*. London: UCL Press.
- McIlveen, P., Hoare, N., McMahon, M., & Patton, W. (2010). Reviewing psychologists' qualifications for career development practice in Australia. *Australian Psychologist*, 45(2), 84-97. doi: 10.1080/00050060903261512
- McKeown, B., & Thomas, D. (1988). *Q methodology*. Thousand Oaks, CA, US: Sage.
- McKeown, M., Stowell-Smith, M., & Foley, B. (1999). Passivity vs. militancy: a Q methodological study of nurses' industrial relations on Merseyside (England). *Journal of Advanced Nursing*, 30(1), 140-149. doi: 10.1046/j.1365-2648.1999.01058.x
- McLeod, J. (1993). Therapeutic factors experienced by members of an out-patient therapy group for older women. *British Journal of Guidance and Counselling*, 21(1), 64-72.
- McMahon, M. (2014). New trends in theory development in career psychology. In G. Arulmani, A. J. Bakshi, F. T. L. Leong, & A. G. Watts (Eds.), *Handbook of career development: International perspectives* (pp. 13-27). New York: Springer.

- McMahon, M., & Patton, W. (1995). Development of a systems theory of career development. *Australian Journal of Career Development*, 4, 15-20.
- McMahon, M., Patton, W., & Watson, M. B. (2005). *The My System of Career Influences (MSCI): Reflecting on my career decision*. Camberwell, Vic., Australia: ACER - Australian Council for Education Researchers.
- Ministry of Education and Higher Education. (2006). National education strategy in Lebanon. Strategic plan document. Retrieved from: <http://www.mehe.gov.lb/Templates/HomePage.aspx?PostingId=1>
- Moore, C., Gunz, H., & Hall, D. T. (2007). Tracing the historical roots of career theory in management and organization studies. In H. Gunz & M. Peiperl (Eds.), *Handbook of career studies* (pp. 13-38). Thousand Oaks, CA: Sage.
- Moracco, J. C. (1976). Vocational maturity of Arab and American high school students. *Journal of Vocational Behavior*, 8(3), 367-373.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40(2), 120-123.
- Mrowinski, V., Kyrios, M., & Voudouris, N. (2010). *Abstracts of the 27th international congress of applied psychology*.
- Mulvey, R. (2001). Ethics in practice: A crucial role for all professionals. *Career Guidance Today*, 9(6), 20-23.
- Mulvey, R. (2006). Career guidance in England: retrospect and prospect. *British Journal of Guidance & Counselling*, 34(1), 13-30. doi: 10.1080/03069880500472243
- Naidoo, A. V. (1998). *Career Maturity: A review of four decades of research*. Bellville, South Africa: University of the Western Cape.
- Nasser, R. N., & Abouchdid, K. (2006). Job-seeking behaviour and job outcomes among Lebanese university graduates in private and public universities. *International Journal for Educational and Vocational Guidance*, 6, 167-180.
- National Board of Employment, Education and Training. (1992). A national training framework for career coordinators: A proposal. Canberra: AGPS.
- National Center for Educational Statistics. (2008). Retrieved from: <http://nces.ed.gov/>
- Near, J. P., Rice, R. W., & Hunt, R. G. (1978). Work and extra-work correlates of life and job satisfaction. *Academy of Management Journal*, 21(2), 248-264. doi: 10.2307/255758
- Nicholson, N. (1990). The transition cycle: causes, outcomes, processes and forms. In S. Fischer & C. L. Cooper (Eds.), *On the move: The psychology of change and transition*. Chichester: Wiley.
- Niles, S. G. (1998). Special section introduction: Time and timing in career development. *The Career Development Quarterly*, 47, 4-5.
- Niles, S. G., & Karajic, A. (2008). Training career practitioners in the 21st century. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (pp. 355-372): Springer.
- Nota, L., Ginevra, M. C., & Soresi, S. (2012). The Career and Work Adaptability Questionnaire (CWAQ): A first contribution to its validation. *Journal of Adolescence*, 35(6), 1557-1569. doi: 10.1016/j.adolescence.2012.06.004
- Ohler, D. L., Levinson, E. M., & Hays, G. M. (1996). The relationship between career maturity and congruence, consistency, and differentiation among individuals with and without learning disabilities. *Journal of Employment Counseling*, 33(2), 50-60.
- Omar, S., & Noordin, F. (2013). Career adaptability and intention to leave among ICT professionals: An exploratory study. *Turkish Online Journal of Educational Technology*, 12(4), 11-18.
- Organisation for Economic Co-operation and Development. (2000). From initial education to working life-making transitions work. Retrieved from:

- <http://www.oecd.org/edu/innovation-education/transitionfrominitialeducationtoworkinglife-homepage.htm>
- Organisation for Economic Co-operation and Development. (2002). *Frascati manual: Proposed standard practice for surveys on research and experimental development* (pp. 256). Retrieved from http://www.oecd-ilibrary.org/science-and-technology/frascati-manual-2002_9789264199040-en
doi:10.1787/9789264199040-en
- Organisation for Economic Co-operation and Development. (2004a). Career guidance and public policy: Bridging the gap. Retrieved from:
<http://www.oecd.org/education/country-studies/34050171.pdf>
- Organisation for Economic Co-operation and Development. (2004b). *Career guidance: A handbook for policy makers*. Retrieved from
<http://www.oecd.org/education/innovation-education/34060761.pdf>
- Organisation for Economic Co-operation and Development. (2010). Restoring fiscal sustainability: Lessons for the public sector *Public Governance Committee Working Party of Senior Budget Officials*. Paris: OECD.
- Ornstein, S., Cron, W. L., & Slocum Jr, J. W. (1989). Life stage versus career stage: A comparative test of the theories of Levinson and Super. *Journal of Organizational Behavior*, 10(2), 117-133.
- Osipow, S. H. (1973). *Theories of career development* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Osipow, S. H., Carney, C. G., Winter, J., Yanico, B. J., & Koschier, M. (1976). *The Career Decision Scale* (3rd ed.). Columbus, OH: Marathon Consulting & Press.
- Osipow, S. H., & Fitzgerald, L. F. (1996). *Theories of career development* (4th ed.). Boston: MA: Allyn & Bacon.
- Oweini, A., & Abdo, R. (1999). An experimental career counseling workshop for Lebanese secondary school students. *High School Journal*, 83(2), 51.
- Parker, I., Georgaca, E., Harper, D., McLaughlin, T., & Stowell-Smith, M. (1995). *Deconstructing psychopathology*. London: Sage.
- Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton Mifflin.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Thousand Oaks, CA, US: Sage Publications, Inc.
- Patton, W. (2000). Perceptions of training needs of career guidance personnel before and after a university program. *Journal of Career Development (Springer Science & Business Media B.V.)*, 26(3), 175-190. doi: 10.1023/A:1022939131493
- Patton, W. (2008). Recent developments in career theories: the influences of constructivism and convergence. In J. A. Athanasou & R. Van Esbroeck (Eds.), *International Handbook of Career Guidance* (pp. 113-156): Springer.
- Patton, W., & Lokan, J. (2001). Perspectives on Donald Super's construct of career maturity. *International Journal for Educational and Vocational Guidance*, 1(1-2), 31-48.
- Patton, W., & McMahon, M. (2006). *Career development and systems theory: Connecting theory and practice*. Rotterdam: Sense Publishers.
- Phillips, S. D. (1997). Toward an expanded definition of adaptive decision making. *Career Development Quarterly*, 45, 275-287.
- Phillips, S. D., Christopher-Sisk, E. K., & Gravino, K. L. (2001). Making career decisions in a relational context. *The Counseling Psychologist*, 29(2), 193-213.
- Pinkney, J. W., & Bozik, C. M. (1994). Review of the career development inventory. In J. T. Kapes, M. M. Mastie, & E. A. Whitfield (Eds.), *A counselor's guide to career assessment instruments* (3rd ed., pp. 264-267). Alexandria, VA: National Career Development Association.

- Plant, P. (2001). Quality in career guidance. Retrieved from: <http://www.oecd.org/education/innovation-education/2698228.pdf>
- Plant, P. (2004). Quality in career guidance: Issues and methods. *International Journal for Educational and Vocational Guidance*, 4, 141-157.
- Plant, P. (2012). Quality assurance and evidence in career guidance in Europe: Counting what is measured or measuring what counts? *International Journal for Educational and Vocational Guidance*, 12(2), 91-104.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of management*, 12(4), 531-544.
- Potter, J., & Wetherell, M. (1987). *Discourse and social psychology. Beyond attitudes and behaviour*. London: Sage.
- Pryor, R. G. L., & Bright, J. E. H. (2003a). The chaos theory of careers. *Australian Journal of Career Development*, 12(3), 12-20.
- Pryor, R. G. L., & Bright, J. E. H. (2007a). The chaos theory of careers: Development, application, and possibilities. *Career Planning and Adult Development Journal*, 23(2), 49-64.
- Pryor, R. G. L., & Watts, A. G. (1991). Symposium: Policy challenges confronting careers guidance. *British Journal of Guidance and Counselling*, 19, 225-297.
- Rafic Hariri Foundation. (2013). Retrieved from: <http://rhf.org.lb/content/career-guidance>
- Rhodes, S. R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin*, 93, 328-367. doi: 10.1037/0033-2909.93.2.328
- Riessman, C. K. (1993). *Narrative analysis*. Newbury Park, CA: Sage Publications.
- Roberts, K. (1968). The entry into employment: an approach towards a general theory. *Sociological Review*, 16, 165-184.
- Roberts, K. (1997). Prolonged transitions to uncertain destinations: The implications for careers guidance. *British Journal of Guidance & Counselling*, 25(3), 345.
- Rodger, A. (1952). *The Seven-Point plan*. London: NIIP.
- Rogers, C. R. (1942). *Counseling and psychotherapy*. Boston: Houghton Mifflin.
- Rogoff, N. (1953). *Recent trends in occupational mobility*. New York: Free Press.
- Rollin, S. (1990). Guidance and counselling training of guidance practitioners: Florida State University.
- Rottinghaus, P. J., Buelow, K. L., Matyja, A., & Schneider, M. R. (2012). The Career Futures Inventory-Revised: Measuring dimensions of career adaptability. *Journal of Career Assessment*, 20(2), 123-139. doi: 10.1177/1069072711420849
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (4th ed.). Edinburgh: Prentice-Hall.
- Savickas, M. L. (1984). Career maturity: The construct and its measurement. *The Vocational Guidance Quarterly*, 32, 222-231.
- Savickas, M. L. (1993). Career counseling in the postmodern era. *Journal of Cognitive Psychotherapy: An International Quarterly*, 7(3), 205-215.
- Savickas, M. L. (1995). Current theoretical issues in vocational psychology: Convergence, divergence, and schism. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology: Theory, research and practice* (2nd ed., pp. 1-34). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Savickas, M. L. (2001). A developmental perspective on vocational behaviour: Career patterns, salience, and themes. *International Journal for Educational & Vocational Guidance*, 1(1/2), 49-57. doi: 10.1023/A:1016916713523

- Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown & Associates (Eds.), *Career choice and development* (4th ed., pp. 149-205). San Francisco: Jossey-Bass.
- Savickas, M. L. (2005). The Theory and Practice of Career Construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42-70). Hoboken, NJ, US: John Wiley & Sons Inc.
- Savickas, M. L. (2008). Helping people choose jobs: A history of the guidance profession. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (2010 ed., pp. 97-113): Springer.
- Savickas, M. L. (2011). *Career counseling*. Washington, DC: American Psychological Association.
- Savickas, M. L., & Baker, D. B. (2005). The history of vocational psychology: Antecedents, origin, and early development. In W. B. Walsh & M. L. Savickas (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (3rd ed., pp. 15-50). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Savickas, M. L., & Porfeli, E. J. (2011). Revision of the Career Maturity Inventory: The adaptability form. *Journal of Career Assessment*, 19(4), 355-374. doi: 10.1177/1069072711409342
- Scheerens, J., Glas, C., & Thomas, S. (2003). *Educational evaluation, assessment and monitoring: A systemic approach*. New York: Taylor & Francis.
- Schein, E. H. (1971). The individual, the organization, and the career: A conceptual scheme. *The Journal of Applied Behavioral Science*, 7(4), 401-426.
- Schiersmann, C., Ertelt, B.-J., Katsarov, J., Mulvey, R., Reid, H., & Weber, P. (2012). *NICE handbook for the academic training of career guidance and counselling professionals*. Heidelberg: Heidelberg University, Institute of Educational Science.
- Schmolck, P. (2002). PQMethod (Version 2.11). Retrieved from <http://www.lrz.de/~schmolck/qmethod/>
- Schultheiss, D. E. P. (2003). A relational approach to career counseling: Theoretical integration and practical application. *Journal of Counseling and Development*, 81(301-310).
- Seligman, L. (1994). *Developmental career counseling and assessment* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Shanahan, M. J., & Porfeli, E. J. (2002). Integrating the life course and life span: Formulating research questions with dual points of entry. *Journal of Vocational Behavior*, 61(3), 398-406.
- Shinebourne, P., & Adams, M. (2007). Therapists' understandings and experiences of working with clients with problems of addiction: A pilot study using Q methodology. *Counselling & Psychotherapy Research*, 7(4), 211-219. doi: 10.1080/14733140701726159
- Silver, R. (2010). Careers profession taskforce: Towards a strong careers profession. An independent report to the Department for Education. London: Department for Education.
- Simon, A. (2014). Quality assurance in university guidance services. *British Journal of Guidance & Counselling*, 42(2), 181-198. doi: 10.1080/03069885.2013.869789
- Simons, J. (2013). An introduction to Q methodology. *Nurse Researcher*, 20(3), 28-32.
- Slocum, J. W. J. a. C., W. L. (1985). Job attitudes and performance during three career stages. *Journal of Vocational Behavior*, 26, 126-145.
- Sonnenfeld, J., & Kotter, J. P. (1982). The maturation of career theory. *Human Relations*, 35(1), 19-46.

- Stainton Rogers, R. (1995). Q methodology. In J. A. Smith, R. Harre, & L. V. Langenhove (Eds.), *Rethinking methods in psychology* (pp. 178-192). Thousand Oaks, CA: Sage.
- Stainton Rogers, W. (1991). *Explaining health and illness: An exploration of diversity*. London: Harvester/Wheatsheaf.
- Stapleton, T. (2008). *Marketing in a complex world: Unit 2 Complexity*. Masters programme course notes, Open University Business School: Milton Keynes, UK.
- Stenner, P., & Stainton Rogers, R. (2004). Q methodology and qualiquantology: The example of discriminating between emotions. In Z. Todd, B. Nerlich, S. McKeown, & D. D. Clarke (Eds.), *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice*. New York: Psychology Press.
- Stephenson, W. (1935). Technique of factor analysis. *Nature*, 136, 297-297.
- Stephenson, W. (1952). Q-methodology and the projective techniques. *Journal of Clinical Psychology*, 8(3), 219-229.
- Stephenson, W. (1953). *The study of behavior; Q-technique and its methodology*. Chicago: University of Chicago Press.
- Stephenson, W. (1961). Scientific creed, 1961: Philosophical credo. Abductory principles. The centrality of self. *The Psychological Record*, 11, 1-26.
- Stephenson, W. (1978). Concourse theory of communication. *Communication*, 3(1), 21-40.
- Stephenson, W. (1982). Q Methodology, interbehavioural psychology, and quantum theory. *The Psychological Record*, 33, 213-248.
- Stephenson, W. (1986). Protoconcurus: The concourse theory of communication. *Operant Subjectivity*, 9(2-3), 37-58, 73-96.
- Stricklin, M., & Almeida, J. (2001). PCQ. Retrieved from <http://www.pcqsoft.com>
- Sultana, R. G. (2003). Review of career guidance policies in 11 acceding and candidate countries: A synthesis report. Turin: European Training Foundation.
- Sultana, R. G. (2013). Career education: past, present ... but what prospects? *British Journal of Guidance & Counselling*, 41, 69-80. doi: 10.1080/03069885.2012.739373
- Sultana, R. G., & Watts, A. G. (2006). Career guidance in Europe's public employment services: Trends and challenges. Retrieved from: http://ec.europa.eu/employment_social/employment_strategy/pesguidancereport_en.pdf
- Sultana, R. G., & Watts, A. G. (2007). Career guidance in the Mediterranean region: comparative analysis. Retrieved from: [http://www.etf.europa.eu/pubmgmt.nsf/\(getAttachment\)/BC49F43D3E17DA11C125735D0051273B/\\$File/NOTE785KJJ.pdf](http://www.etf.europa.eu/pubmgmt.nsf/(getAttachment)/BC49F43D3E17DA11C125735D0051273B/$File/NOTE785KJJ.pdf)
- Sultana, R. G., & Watts, A. G. (2008). Career guidance in the Middle East and North Africa. *International Journal for Educational and Vocational Guidance*, 8(1), 19-34.
- Super, D. E. (1953). A theory of vocational development. *American Psychologist*, 8(5), 185-190. doi: 10.1037/h0056046
- Super, D. E. (1955). Dimensions and measurement of vocational maturity. *Teachers College Record*, 57, 151-163.
- Super, D. E. (1977). Vocational maturity in mid-career. *Vocational Guidance Quarterly*, 25(4), 294-302.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16(3), 282-296.
- Super, D. E. (1981). A developmental theory: Implementing a self-concept. In D. H. Montross & C. J. Shinkman (Eds.), *Career development in the 80s: Theory and practice*. Springfield, IL: Charles C Thomas.
- Super, D. E. (1983). Assessment in career guidance: Toward truly developmental counseling. *Personnel and Guidance Journal*, 61(9), 555-562.

- 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 theories to practice* (2nd ed., pp. 197-261). San Francisco: Jossey-Bass.
- Super, D. E., & Kidd, J. M. (1979). Vocational maturity in adulthood: Toward turning a model into a measure. *Journal of Vocational Behavior*, 74, 255-270.
- Super, D. E., & Knasel, E. G. (1979). *Development of a model, specifications, and sample items for measuring career adaptability (vocational maturity) in young blue-collar workers*. Cambridge, UK: National Institute for Careers Education and Counselling.
- Super, D. E., & Knasel, E. G. (1981). Career development in adulthood: Some theoretical problems and a possible solution. *British Journal of Guidance and Counselling*, 9(2), 194-201.
- Super, D. E., Thompson, A. S., & Lindeman, R. H. (1988). *Adult Career Concerns Inventory: Manual for research and exploratory use in counseling*. Palo Alto, CA: Consulting Psychologists Press.
- Suppe, F. (1977). *The structure of scientific theories*. USA: University of Illinois Press.
- Swanson, J. L. (1992). Vocational behavior, 1989–1991: Life-span career development and reciprocal interaction of work and nonwork. *Journal of Vocational Behavior*, 41(2), 101-161.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Tashakkori, A., & Teddlie, C. (2010). Current developments and emerging trends in integrated research methodology. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (2nd ed.). Thousand Oaks, CA: Sage.
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, CA: Sage.
- The European Centre for the Development of Vocational Training. (2009). Professionalising career guidance. Practitioner competences and qualification routes in Europe. Retrieved from: http://www.cedefop.europa.eu/EN/Files/5193_en.pdf
- Thelen, E. (1993). Timing and developmental dynamics in the acquisition of early motor skills. In G. Turkewitz & D. Deveny (Eds.), *Developmental time and timing* (pp. 85-104). Hillsdale, NJ: Erlbaum.
- Theodory, G. C. (1979). Students' planning for future careers in Lebanon. Beirut: Center for Educational Research and Development.
- Theodory, G. C. (1982). Career maturity of Lebanese students in higher education. *International Journal for the Advancement of Counselling*, 5(2), 121-130.
- Thomas, D. C., & Inkson, K. (2007). Careers across cultures. In H. Gunz & M. Peiperl (Eds.), *Handbook of career studies*. Los Angeles, CA: Sage.
- Thompson, A. S., Lindeman, R. H., Super, D. E., Jordaan, J. P., & Myers, R. A. (1981). Career Development Inventory. *Volume 2: Technical Manual*. Retrieved from: <http://www.vocopher.com/>
- Thorsen, A. A. (2006). A pathway to understanding Q-methodology. *Journal of Human subjectivity*, 4(2), 33-53.
- Tilden, A. J. (1978). Is there a monotonic criterion for measures of vocational maturity in college students? *Journal of Vocational Behavior*, 12, 43-52.
- Tinsley, H. E. (2000). The congruence myth: An analysis of the efficacy of the person–environment fit model. *Journal of Vocational Behavior*, 56(2), 147-179.

- Todd, Z., Nerlich, B., McKeown, S., & Clarke, D. D. (2004). *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice*. London, UK: Psychology Press.
- Toomela, A. (2007). Culture of science: Strange history of the methodological thinking in psychology. *Integrative Psychological & Behavioral Science*, 41(1), 6-20.
- Urzaínki, J., Pozuelo, C., Fuente, D., Luengo, I., Martín, P., & Miquel, J. (2005). *Definición y modelos de servicios de información y orientación universitarios [Definition and models of information and university guidance systems]*. Salamanca: Grupo SIOU.
- Van Esbroeck, R. (1997). A holistic model for career guidance. *Revista de Orientacion y Psicopedagogia*, 8, 5-13.
- Vlaardingerbroek, B., Dallal, K., Rizkallah, G., & Rabah, J. Y. (2007). A tracer study of Lebanese upper secondary school students. *International Journal of Educational Development*, 27, 564-571.
- Vlaardingerbroek, B., & El-Masri, Y. H. (2008). Student transition to upper secondary vocational and technical education (VTE) in Lebanon: from stigma to success. *Journal of Vocational Education and Training*, 60, 19-33.
- Vlaardingerbroek, B., Taylor, N., & Haig, T. (2009). Student transition to vocational education from middle secondary school in Australia and Lebanon: an exploratory study. *Mediterranean Journal of Educational Studies*, 14, 91-107.
- Vondracek, F. W., & Lerner, R. M. (1982). Vocational role development in adolescence. In B. Wolman (Ed.), *Handbook of development psychology* (pp. 602-614). Englewood Cliffs, NJ: Prentice-Hall.
- Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (1986). *Career development: A life-span developmental approach*. Hillsdale, NJ: Erlbaum Associates.
- Vondracek, F. W., & Porfeli, E. J. (2008). Social contexts for career guidance throughout the world. Developmental-contextual perspectives on career across the lifespan. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (pp. 209-225): Springer.
- Vondracek, F. W., & Reitzle, M. (1998). The viability of career maturity theory: A developmental - contextual perspective. *Career Development Quarterly*, 47(1), 6-15.
- Waner, R. (2012). *Applied statistics from bivariate through multivariate techniques*: Sage.
- Wannan, J., & McCarthy, J. (2005). Improving lifelong guidance policies and systems. Using common European reference tools. Retrieved from: http://www.cedefop.europa.eu/EN/Files/4045_en.pdf
- Watson, D., & Clark, L. A. (1984). Negative Affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, 96, 465-490.
- Watson, M. B. (2006). Career counselling theory, culture and constructivism. In M. McMahon & W. Patton (Eds.), *Career counselling: Constructivist approaches* (pp. 45-56). Oxon, UK: Routledge.
- Watson, M. B. (2008). Career maturity assessment in an international context *International handbook of career guidance* (pp. 511-523): Springer.
- Watson, M. B., & Stead, G. B. (2006). The career development theory of Donald Super. In G. B. Stead & M. B. Watson (Eds.), *Career psychology in the South African context* (2nd ed., pp. 51-64). Hatfield, Pretoria, South Africa: Van Schaik.
- Watson, M. B., Stead, G. B., & De Jager, A. C. (1995). The career development of black and white South African university students. *International Journal for the Advancement Counselling*, 18(1), 39-47. doi: 10.1007/BF01409603
- Watt, G. (1998). Supporting employability: guides to good practice in employment counselling and guidance. Luxembourg: Office for Official Publications of the European Commission.

- Watts, A. G. (1991). The impact of the 'New Right': Policy challenges confronting careers guidance in England and Wales. *British Journal of Guidance & Counselling*, 19(3), 230-245.
- Watts, A. G. (1994). Occupational profiles of vocational counselors in Europe. *Journal of Counseling & Development*, 73(1), 44-50.
- Watts, A. G. (1996). Careers guidance and public policy. In A. G. Watts, B. Law, J. Killeen, J. M. Kidd, & R. Hawthorn (Eds.), *Rethinking careers education and guidance: Theory, policy and practice* (pp. 380-391). London: Routledge.
- Watts, A. G. (2000). Career development and public policy. *Career Development Quarterly*, 48(4), 301-312.
- Watts, A. G., Hughes, D., & Wood, M. (2005). A market in career? Evidence and issues. Derby: Centre for Guidance Studies, University of Derby.
- Watts, A. G., & Sultana, R. G. (2004). Career guidance policies in 37 Countries: Contrasts and common themes. *International Journal for Educational and Vocational Guidance*, 4(2-3), 105-122.
- Watts, A. G., & Van Esbroeck, R. (1998). *New skills for new future. Higher education guidance and counselling services in the European Union*. Brussels: VUB Press.
- Watts, S., & Stenner, P. (2005). Doing Q methodology: Theory, method and interpretation. *Qualitative Research in Psychology*, 2(1), 67-91.
- Watts, S., & Stenner, P. (2012). *Doing Q methodological research. Theory, method and interpretation*. London: Sage.
- Weber, T., Danielson, S., & Tuler, S. (2009). Using Q-method to reveal social perspectives in environmental research. Retrieved from: <http://www.seri-us.org/pubs/Qprimer.pdf>
- Westbrook, B. W. (1984). Career maturity: The concept, the instruments, and the research. In S. H. Osipow (Ed.), *Handbook of vocational psychology* (Vol. 1). Hillsdale, NJ: Erlbaum.
- Whiston, S. C., Brecheisen, B. K., & Stephens, J. (2003). Does treatment modality affect career counseling effectiveness? *Journal of Vocational Behavior*, 62(3), 390-410.
- Whiston, S. C., & Buck, I. M. (2008). Evaluation of career guidance programs. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (pp. 677-692): Springer.
- Willig, C. (2008). *Introducing qualitative research in psychology* (2nd ed.). England: Open University Press.
- Work & Organisation Psychology Students. (2011). *Career guidance opinion survey*. Université Saint-Joseph. Unpublished raw data.
- Yates, J. (2011). Can career coaching enhance our profession? *Constructing the future VI*. Stourbridge: Institute of Career Guidance.
- Yates, J. (2014). *The career coaching handbook*. New York, NY, US: Routledge/Taylor & Francis Group.
- Young, R. A., & Valach, L. (2000). Reconceptualizing career psychology: An action theoretical perspective. In A. Collin & R. A. Young (Eds.), *The future of career* (pp. 181-196). Cambridge, England: Cambridge University Press.
- Young, R. A., & Valach, L. (2008). Action theory: An integrative paradigm for research and evaluation in career. In J. A. Athanasou & R. V. Esbroeck (Eds.), *International handbook of career guidance* (pp. 643-657): Springer.
- Young, R. A., Valach, L., & Collin, A. (2002). A contextual explanation of career. In D. Brown, L. Brooks, & Associates (Eds.), *Career choice and development* (4th ed., pp. 206-254). San Fransisco, CA: Jossey-Bass.

Appendix A

List of Lebanese laws relevant to career guidance (Abdul Ghani 2006)

POLICY FRAMEWORK

- *How important is legislation in steering career guidance services in your country? Please briefly describe the main pieces of legislation that directly affect career guidance services, quoting any short key extracts that are particularly important.*

There is no integrated policy framework or single comprehensive legislation for career guidance services. Career guidance services are legislated in fragments as follows:

Decree No. 8480 dated January 9, 1962 “Authorizing the Inspectorate of Education practice career guidance Services”. The decree authorised the educational inspectors to act as career guidance officers in schools. Officers attended special training courses to carry the new duties. The inspectorate played this role until 1972.

Decree No. 3252 dated May 17, 1972 “Establishing a department for Career Guidance at the Ministry of Education”. The decree authorised the establishment of a new department for career guidance services within the MOE. Guidance services were removed from the Inspectorate of Education and assigned to the newly established department. Until this day the department of career guidance services at the MOE is not fully functional. Four people manage and operate the department. Recently, the Ministry assigned 14 teachers to be trained as career guidance officers. The initiative is supported by Microsoft and training will be concluded within the next two months.

Decree No. 2019 dated May 10, 1979 “*Organization of the National Employment Office (NEO)* ”

The degree defined the role and the functions of the NEO including the departments of information, employment, vocational qualifications, labor market, labor orientation, training for employment and career guidance. Under the new organization, a fully fledged career guidance department staffed with professional personnel is to be established and to be supported by the necessary labor market information and job centres. The department is not activated until this day.

Decrees No. 15742 dated March 11, 1964 and No. 16981 dated Jul 27, 1964 “Organization of the Directorate General of Vocational and Technical Education DGVTE” and its modifications through Decrees 3087 dated 1972 and 5784 dated 1973. The decrees and its modifications acknowledged deploying 4 career guidance officers within the departments of DGVTE.

Decree No. 8349 May 2, 1996 “Organization of the Ministry of Education and Higher Education”

Under this decree the DGVTE became The Ministry of Vocational and Technical Education (MVTE), More staff was allocated to the newly established ministry including 9 career guidance officers to work in the various departments. Non of the allocated guidance officers was recruited.

Decree No 11185 dated 21.10.1997: ” Modification of the mandate of the College of Education at the Lebanese University”. The decree commissioned the college of education at the Lebanese University to prepare and train career guidance counsellors, educational inspectors, school directors and all human resources necessary for education management. No actions have been taken to implement the decree.

Decree No. 13579 dated 1997 “Authorizing the College of Education at the Lebanese University to issue post graduate degrees”. The Lebanese government broadened the role of the college of education at the Lebanese university to award postgraduate degrees in career guidance services and other education management majors. The college is yet to establish the new majors.

Appendix B

University type as a percentage of the sample (value received by participants from career guidance services in universities)

Count		Yes		No		Total	
		Frequency	%	Frequency	%	Frequency	%
University	private	87	18.43	385	81.57	472	86.13
Type	public	11	14.47	65	85.53	76	13.87
Total		98	17.88	450	82.12	548	100

Note. Career guidance opinion survey 2011: University Type * Did/are you get/getting any value from the career guidance services during your university studies? Crosstabulation

Appendix C

Frequency of universities' career guidance services/events used/attended by
participants

	Frequency	%
advising students on academic programmes and jobs	55	56.12
preparing students for university application and admission	29	29.59
planning and preparation for university admissions tests such as SAT, TAGE-MAGE, TOEFL, GMAT	20	20.40
informing students about financing that can be used to support advanced education and training	21	21.43
developing career portfolios, which include test and grades results, examples of student work, and resumes and cover letters to prospective employers	29	29.59
arranging job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations	24	24.49
sponsoring workshops, classes, focus groups, and special presentations that focus on job skills and personal development	24	24.49
providing specialized counseling and intervention services to provide students with individualized attention	20	20.40
inviting professionals from different sectors to talk about their profession	59	60.20
taking students to Open Day in Universities	36	36.73
Other (please specify)	29	29.59
Missing	0	0
Total	98	100.0

Note. Career guidance opinion survey 2011: If you are benefiting from career guidance services/events your school/university offers/organizes please indicate which ones: (you may choose several options)

Appendix D

Reasons of poor career guidance services based on participants' perception

2000 i don't think we had a career guidance office
 Activities of the career guidance office at AUB were very limited back then!
 advise was not good
 AFTER 3 YEARS OF ENGINEERING STUDY I WAS INFORMED THAT MY DIPLOME
 WILL NOT BE RECONISED BY THE LEBANESE AUTHORITIES
 As a freelance job (interior design), i don't know if career guidance works.
 because i know what i want in life:)
 Career guidance at university was not very active
 career guidance services provided by the university were incomplete
 Career guidance was not marketed enough.
 Career guidance was not solid enough to cover all avialbale options provided for a student
 who has the chance to study and work abroad. Guidance was mainly oriented towards the
 local market which is not so developed based on th equality of studies universities provide
 CAREER GUIDANCE WAS POOR
 Career guidance were existing but they didn't really guide well.
 did not hear about career guidance at my university
 Did not provide the efficient guidance needed
 Didn't know that the office could provide such services.
 didn't know university had a career guidance
 didn't need any, was convinced with my choice from the begining
 didn't think about its benefits
 didnt feel the need for it. very happy in choices so far
 didnt have a career guidance office
 Didnt know we have a career guidance services..
 don't know if usj provides career guidance services
 don't need it
 don't now if we have career guidance at our university
 either way, I couldn't find any job opportunity in Lebanon. So honestly it's useless
 FORGOT THE QUESTION
 He wasn't much of any help
 I already answered yes.
 i answered yes to the previous question!
 I believe in the benefits of career guidance and feel there is a desperate need for it. schools
 and universities must have obligatory career guidance programmes, departments, offices and
 guiders.
 I believe in the benefits of career guidance; it's necessary for having a Successful career
 choice
 I did not get guidance
 i did not have any career guidance although i would have liked to
 i did not know that we have career guidance in our university
 I didn't know if USJ had any career guidance, and everything was too confusing and
 discouraging that I didn't even seek a guidance.
 i didnt have any career guidance, although i think it's very important knowing that i
 specialised in a major that i dont like because of the lack of any kind of guidance

I didnt want to, because I just wanted to leave this university and this city (Sorbonne-Paris IV)

I do believe in Career guidance at University

I don;t know if there is a career guidance office and if there is i hope it is not the ""service d'etudiants

i forgot what the career guidance office at school told me (wish i haven't)

I had my career before finishing my study

I haven't looked for career guidance help yet

I just know what i like and want

i never asked their help

I never had a career guidance service before. I already knew what i want to do and achieve.

I never had the chance to sit with a career guide

i was never approached by anyone from the career guidance office

I was not informed enough, back then, to go and ask for career guidance

i was sure that i wont be able to continue in that major. i changed my major after 3 days from registration

I wasn't advised by uni. I regret wasting time on marketing...its not what i wanted

I wasn't sure that they will provide me with the right advice.

I'm still in preparatory school (classes preparatoires), but they don't talk at all about the future engineering years, unfortunately.

It was a very far office... if it existed...

It was war time anyway, so they could hardly provide us with the minimum required to graduate.

Je n'ai jamais su que ca existait a l'USJ, surtout que l'universite n'a jamais montre aucun interet (de mon temps et dans ma faculte) pour les etudiants ou pour leur carriere.

my answer was yes

Neither the school nor the university provided career guidance

never felt the need to ask about it

never had career guidance

Never thought about it

never thought of going to the office!!

no comment

No orientations toward importance of career guidance

Not very efficient career guidance

Our university only had a Career placement office, which used to send us jobs by emails nothing more. i did not even have to meet with them

POOR CAREER GUIDANCE

Poor career guidance at my university

Schools in my days didn t do too much about areer guidance

The effort was not enough. Or its capability is not enough

The persons in charge of career guidance are not qualified for the job

the school and university did not organize any such activities and I had no knowlede of its availability at my school

the so-called ""tuteur"" (career guidance practitionner) knows nothing about the subject.

the social assistance in the career guidance never filled me with the information i needed

their career guidance suck

they don't give in univerity importance for such stuff so we don't know exactly what to do and where to go

They usually only take us to conferences...

They were not involved in the university process. They were much more involved in recruiting students not in maintaining, guiding and supporting students choices and difficulties during years of studies.

too late when you have already chosen your major

too soon to think about it

University had career guidance services but did not use them efficiently.

Very basic, not beneficial

was not aware at that time

we had no such thing at the time i graduated

When I feel that I need guidance, I won't hesitate to use the career guidance services.

When I studied this service wasn't available. Moreover, the political situation was rather ""hot"" in Lebanon. I just came back to Lebanon to get my graduation

When I was a student this service didn't exist

yes we need to have a career guidance to help the student to choice a good career

Note. Career guidance opinion survey 2011: Why you are not getting any value from the career guidance services during your university studies? other (please specify)

Appendix E

Participants' perception of a career guidance practitioner's job

	Frequency	%	Valid %	Cumulative %
other (please specify)	36	3.9	4.6	4.6
helps students to make their own decisions according to what is available on the employment market	238	25.5	30.2	34.8
assists students to understand themselves, including assessing their own achievements, abilities and interests	472	50.5	59.9	94.7
Valid implements students plans for higher education purposes	28	3.0	3.6	98.2
administers tests and provides results	8	.9	1.0	99.2
assists students in using computer software and careers information and other resources	6	.6	.8	100.0
Total	788	84.4	100.0	
Missing System	146	15.6		
Total	934	100.0		

Note. Career guidance opinion survey 2011: Based on your knowledge and/or experience, what does a Career Guidance Practitioner do?

Appendix F

Percentage of group of people who helped participants with their university major

	Frequency	%
career guidance practitioner at your school	32	3.4
career guidance practitioner at your university	14	1.5
parent(s)/ family member(s)	183	19.6
friend(s)	83	8.9
teacher	41	4.4
personal research	305	32.7
current trend	48	5.1
based on the highest probability of finding a job upon graduation	79	8.5
other (please specify)	66	7.1
Missing	163	22.89
Total	712	100.0

Note. Career guidance opinion survey 2011: Who helped you to choose your university major? (Business, Engineering, Psychology etc.)

Appendix G

Reason of participants' change of major

	Frequency	%
lack of career guidance services	16	1.7
poor career guidance services	12	1.3
non-professional career guidance services	3	.3
poor academic results	6	.6
didn't like it	52	5.6
personal reasons	37	4.0
other (please specify)	21	2.2
Total	110	100.0

Note. Career guidance opinion survey 2011: Why did you change your major?

Appendix H

Participants' suggestions on how to improve career guidance in Lebanon

-
- academic paths: Should be implement at each level - non academic paths, all other jobs or paths that are not academic: should be provided by the public and the private sectors. People should know about this ""science"" and about how it could be important for their life heling them knowing themselves and the provided paths in the market. Good luck
 - be obligatory in every university and college, public and private sector;
 - Enforce new programmes with very basic lessons on a variety of subjects (architecture, graphic, ...) - Career Guidance in schools - Career guidance offices within recruitment agencies
 - Generate awareness on this crucial issue on the national level: parents should be aware of this as well as students and of course working people. This can be done through outdoor campaigns, press ads in magazines, seminars and workshops on this subject with press coverage, viral campaigns through social media, TV interviews with specialists, etc. - Train professionls to conduct this mission effectively - Open Career guidance offices in each school and university and strongly mtivate students to seek their counselling and guidance - Promote and encourage private initiatives to create advanced career guidance offices
 - Implement in schools as well as universities for students - Maintain for alumni as counseling might be needed post graduation especially for entrepreneurs - It should be free for students and alumni - it is a service that improves performance of ggraduates and hence the equity of the university.
 - introducing the concept of career guidance to the Lebanese people, with mentioning its financial benefits (otherwise gaining their interest would be more difficult), through academic curriculum, presence of career guidance stands, etc. - the presence of career guidance practitioners in schools, universities, companies and offices. - establishing a coordination between all ministries/institutions related to work or activities: ministry of education, ministry of labor, institutions/organization for youth (or other) activities etc. in order to synchronize facts regarding academic majors, work fields, activities and orient career guidance seekers towards an organized and clear choices/paths
 - lobby private schools/institutions to establish a career guidance service at their premises by Highlighting the added value (human and financial) of having asuch a service - lobby the Ministry of Education and the Ministry of Youth and sports to establish a national career guidance policy - Lobby Incubators to give prioirity to projects embracing career guidance
 - Create a role model career guidance institution based on the results of this survey by the current students enrolled in this survey and other professionals.
 - make people know more about them - make them available at schools and universities
 - Marketing the career guidance objectives and benefits - Spread on the market - Use a more live approach
 - Offer more personalized career guidance at schools for children to discover what they want to do, rather than what their parents want them to do, or what is fashionable to do at the time
 - Offer public information on what types of professions are lacking in the country
 - reinforce and promote the role of the carreer guidance in the universities ans schools - more active alumni

- School Career Guidance is important for students to acquired proper knowledge on which subject to major in when going to a university based on their own decision not being influenced by parents and friends. - Understand the student's capabilities and passion for the future career he/she would like to have and guide them accordingly.

- Students are not even aware of the importance of career guidance until they start searching for their first job. At this step, we face many challenges: 1) the lack of career options 2) the lack of company options 3) the lack of information related to market needs - Career guidance offices should always be in close contact with Alumnis and private/public companies in different markets. It should be able to gather information of the needs of those markets in order to help students in their choices, whether educational or professional.

- this should be taken more seriously and students / employers should be obliged to assist to at least a few sessions in order for them to be guided and well oriented

-Introduce children to different careers as early as possible (integrated in the school subject-matter) -Organize open days -provide career counseling at the school level and university level -Invite people from different sectors to talk about their jobs -Integrate real life problems, assignments, and projects at the school level so students will get familiarize with the different careers and sectors.

-Let career guidance specialists visit once a year schools to speak about their job and allow students to discuss with them. Many families can't afford to pay them and I think they should maybe offer free council in the first place.

-TO HAVE A CLEAR PICTURE ABOUT THE ECONOMICAL DEVELOPMENT IN LEBANON AND ABROAD -TO HAVE A CLEAR IDEA ABOUT THE JOB MARKET NEEDS FOR THE 5 COMING YEARS

* guide students depending on the needs in lebanon * change the programmes (curriculum) in lebanon to guide students more to the carreer they succeed * organise career guidance in all schools by specialising people

1- career plan 2- course at school, especially to secondary level one hour per week to help ""what is in the job and feel the job"" 3-

1- increase the number of career guidance offices in Lebanon 2- familiarize people with careers counselors 3- try to enter all schools

1- Inform about the importance of career guidance 2- Have accredited people to guide 3- Use tests to know the tendency of students (start using them since school) 4- Follow up on students in an accurate manner 5- Create clear career paths for employees at organisations

1- Make it avilable to the lower-middle classes 2 - Give clear idea as to the ""importance"" of the University to graduate from. 80% of Universities in Lebanon are worthless. A degree from,one of these does not improve the chances of getting ajob.

1- to have a major specialization in universities so people can apply and have their degree. 2- After having the degree, implementing career guidance in schools, whether public or private, in the early classes and to follow the student from the start, meaning to profile him and follow up his educational profile from the age of 6 years. 3- to see and hear more of the professionals, because right now, it's still a vague and unknown field, people pass next to it but never interested in knowing what it is. Like when at schools the representative of career guidance come and talk to students, it's just ""blablabla"". 4- to provide the professional tools like psychometric tests, assessment centers and other in order to have good test results or at least a clear idea of what's the future i want and i can build. And this is because we are only doing magazine tests, we don't know the name of the test, and the results are also vague. 5- to talk about career guidance more, people need to get familiarized with this idea. the Lebanese culture is so egocentric, we don't see, we don't care we don't ask and especially we don't take action into making our lives a better place to live. it's a nagging society. Career guidance must impose itself through TV, conferences, seminars, courses, workshops, articles... when people hear about it more than often, it can attract their attention, therefore it can be implemented. etc!

1- Une aide (évaluation) psychologique qui pourra aider l'étudiant; connaître soi-même; bien choisir une carrière qu'il va plus tard faire avec passion, sans jamais tenir compte des parents ou autre qui souvent ne font que gâcher la vie de leurs enfants.

1. Career Guidance should be initiated at GRADE 11 of High School and repeated with workshops at Grade 12... 2. Universities should also follow up these workshops and entice students to attend by offering a One Credit Bonus as incentive... Workshops should definitely involve actual career men and women and NOT Only career counsellors.. 3. Some individual research and projects should be assigned to students by the University career practitioner.. 4. as soon as they become employed, Students should submit an online report (set by University Career Development) about how effective was their Career Guidance program at the university or any other feedback..

1. Raise awareness in schools and universities that career guidance is crucial early in life 2. Raise awareness of employers that continuous career guidance is essential for a better employee performance

1) Have better career guidance programmes mainly in schools, because that's where the students choose his/her future career. You can have career guidance professionals come & interview each student or let them fill out a form, in order to see their perfect match for a career. 2) Have better career guidance programmes in universities by giving the students more opportunities to see & experience everything they're studying on the field. Help them know exactly what they would do once they get a job; help them decide if that's the best career for them or not.

A better survey to start with. Not only lots of answers do not apply, but they are also mandatory. You also might have chosen the wrong survey tool. We have a specialised center at USJ that could have helped you thinking your questionnaire. You should have contacted them for a better coverage of what is called ""national"". Feel free to contact me if needed : xxx

A complete assessment should be done before graduating from school . At that age, we don't really know who we are as individuals and can definitely choose the wrong career at that point. That is why we can see a lot of switches during the university years or even much later in the work field.

A special and specific educational program in career guidance to be available as all other specialties.

Advertise it on TV and on the billboards so people are aware of it

awareness session about the importance of having ""career guidance"", starting in schools but also addressed to the public (through advertisement, brochures, etc.) good luck!

Be more close to public or people through their municipalities and force them to assist to sessions given by ur side...Thank you.I suffered from non having good orientation since schools and now i am suffering to adjust my diplomas to get a better social and working daily life.

be more efficient and available for all.

Be more Realistic

Brochures"" made by universities should be much more developped. Courses are sometimes way different than career work, and this should be mentioned and developped (described) for a better guidance.

career guidance here sucks..grade 12 z almost done.. and im still very lost.. most of my class stil has no idea about wat theyre gna do in college..ts so frustratng and the career guidance we got never helped us.. its the same stuf we've been repeating from previous years...no idea of what to doo..

Career Guidance in schools should be compulsory, in that way students knows what the right sector to choose function to their characters. Also career guidance should be always helping students in Universities and check if they are loving what they do, not just ""not failing"".

Career Guidance must be held by professionals with degrees not by simple teachers or employees

Career guidance offices in schools that help students know more about the major they "" think "" they like and will excel in rather than letting them discover what it is on there own when they get into it.

career guidance shoul exist in evey university to help the students to choose their majors.

Career guidance should place more emphasis on the students and ensure opportunities for them not only send a mass email where opportunities get lost. Many universities and schools do not really provide guidance, they rather just inform students of vacancies but do not give proper counseling.

career guidance should start at early stages at schools! it is crucial to help students' awareness on future careers and possible majors to be studied at the university to get to the career they are aiming for. i believe career guidance is most important in schools!

Career guidance should start from the school level and continous with the strudent along his university studies. Because studend Might not know exactly what he wants from the lower levels and might yes. However, students should not feel overwhelmed with extra payment for this service and consequently not all student would enjoy this feature. Finally, i would suggest to improve this service to make it compulsory to all private and official schools and universities. the main purpose would be to inmporve the educational level in Lebanon which is considered as its competitive advantage, and therefore to make this service on the governement's charge. (the Council of Ministers to issue a decree in this regard to help the Lebanese students)

Career orientation in school starting brevet

Change the programmes of the Ministry of Education, which date from the years of the dinosaurs. Include assistant beginning from the last 4 years of the school. Assist the students to understand the needs of the country. Create a law that forbids recruitment on personal basis and favors recruitment on potential basis, while including sever sanctions.

CHANGE THE STEREO TYPES THAT ONLY DOCTORS; ENGINEERS; LAYERS ARE THE BEST CAREERS: WE HAVE ENOUGH, WE NEED TECHNICAL SPECIALTIES AND TECHNICIANS.....BE CREATIVE, WE ARE SMART ENOUGH.

create career guidance and promote it

Create diplomas that will give the necessary accreditation to career counselors. Take it more seriously especially in schools

creation of centers for the orientation

Don't know!

During education: Make all schools and universities have accredited career guidance people

Make students have career guidance help more often After education: Create long term plans and checking with career guidance help every now and then

During high school years visit different types of working places Every University applicant should be given the chance to be interviewed by the career guidance office at the university in order to help the applicant in choosing the right major field of study. When Applying for jobs upon graduation the recruiter should be properly interviewing the applicant in order to find him the right job for the right personality and the right career path.

every school should have career guidance practitioners to help students decide their future careers according to the markets needs, because students enters their majors not knowing what they are facing and they end up with aq profession that they don't even like.

First of all, Psychology in general and I/O psychology in particular should be well understood and taken into consideration in order to create well knowledgeable and skilled individuals and help them decrease the amount of stress and confusion they might go through

first we should own in lebanon one educational philosophy then many problems would be solved easily.

Free Career Guidance for all High School Students and University Students.

Fuck u and lebanon

general studies on availabilty of jobs and specializations in Lebanon should be widely distributed in all schools to help in the future choice of careers.

get free sites for career guidance

Get professionals

Get real one let governments pay attention to the subject :D

HAVE a career Guidance, because there isn't one to improve in the first place...

have a test career to guide the children in the best career choice

Have Career Guidance offices in Universities

have career guidance practitioners at schools and universities

have more professional people in this domaine let it be free have more statistic numbers for better guidance

have public bureaus that orient teenagers in their choices since not all schools have them (a little like the Yaza.. doing interventions in schools and advertising and stuff like that) maybe encourage colleges and schools to have bureaus (with qualified staff of course) mostly everything gets through the media, it's crucial.. so maybe doing a TV program where every episode a job is presented with it pros and cons with professional intervention and where people can call and ask questions can be an easy way to transmit the message having better knowledge of the market needs. HAVING professional person in charge of the guidance in every school

hope that career guidance will take the feeling of someone looking for his future or a job or a post seriously, and not to let him feel that he s donating something of them. Cause most of them have there own offices and prefer to do relations with companies and give the companies interests more than the students or workers.

I can't really suggest anything because I still haven't experienced much with career guidance in Lebanon, so I still don't know if the career guidance services are up to standard.

I don't believe it is efficient in Lebanon.. sorry.. may be chance and other things are much more needed! GOOD LUCK

I suggest to consider it in the educational institutions first, and to have a public professional career guidance institution.

I suggest to have career guidance services at the high school level to help identify the students' personality profile, strengths and weaknesses and preferences so that they choose their majors accordingly.

I think a career guidance has to have a comity that includes representatives from different schools or universities so they can evaluate the candidate's academic standing and representatives from companies with different sectors so they can find out where the candidate may excel.

I think it is difficult to give suggestions to improve career guidance in Lebanon because it's related mainly to the instability of the job opportunities in Lebanon (political and economical crisis), but I can say that the career guide must pinpoint for the student at school who is willing to work in the well-known sectors like hospitals (medicine), law (lawyer), building (engineers, architects) that there are far more demands in these sectors than supplies. So, he has to draw his attention on less classical sectors where he is more likely to find job opportunities. He has to know the market well and guide him towards sectors that are at the same time adapted to his personality and respond to the needs of the future.

I think that currently, schools and universities are looking into career guidance from just a few perspectives, which are more generic than customized to the case in hand. It's usually done by teachers and they guide their students towards jobs and specializations that are not already saturated, that provide a good pay and probably good chances for career progression in the future. They are disregarding, or not giving much importance to the perspective that tackles the applicant's skills, abilities, likes/dislikes, etc... which may or may not align with the above generic suggestions. So I think there's still a lot to do in this area. On the other hand, I think that career guidance in the professional life in Lebanon (excluding multinational companies that most probably provide such services) is a disaster. Once in a company, progressing or changing careers is up to the employee himself. Taking into consideration that guiding a person in his professional life requires a much more experienced and specialized career guidance practitioner than the ones that may help students in choosing school tracks or university majors, I'm not sure if this is even feasible. But it would be great if such career guidance services exist and again, services that are not generic in nature but really customized to each and every case and that take into consideration the person himself as well as opportunities in the market. Currently career guidance in the professional life is mostly practiced by managers and company owners and their suggestions are biased in most of the cases. I think that it would also be beneficial to educate employers on career guidance and employee retention, etc and show them the value out of it. I hope for this survey to ignite subsequent initiatives yielding much better career guidance services in Lebanon. Great Job, Good Luck!

i wish they can show us a brief description of available careers in Lebanon like real videos or professionals' point of view and of course tell us about the careers in our society that has shortage in resources

i work in the field and i feel we need to attend more seminars and workshops in career guidance, all people working in the field need it... this service is still weak in Lebanon. I'm wondering if you could make the survey in three different languages (EN, FR, AR).

il faut le faire a l ecole selon les capacites de l eleve et le besoin du marche

Implement a real system where schools, universities and professional cooperate to provide students with real life feedback and job opportunities

improve it in school more and more

In every school should be a career guidance because sometimes students get lost in their decision and change many majors. Then a career guidance agencies in lebanon because sometimes we need help to find a job, someone to tell us where we can find a job opportunity based on our major. And psychometric test should be present in every school.

in my opinion it is sufficient to have them in our schools universities,during our graduations to lead us to the right way in our lives or even the schools must oblige the students when they become in a high classes to have their own guidance even if each has to pay for it....

increased interactions with professionals

Inform students, pupils, about it. Do some advertismment maybe

it has to be individualized and they have to know what do Lebanon markets needs.

It has to be monitor from the top to the bottom with the intervention of many actors:

Ministries, Associations, Employment agencies, Schools, Universities and companies ... It

will be good to open employment agencies comprising career guidance. Career guidance must be present in all shcools.

It has to start at school !

It has to start first so we could see the weakness of it and make suggestions

It must become a government task

it should be found in every school in lebanon (private and public)

it should be implemented effectively in schools and should be provided by professionals.

It should be present in schools and universities. They should pay for this office to be present and council students for free.

it should be readily available to all students in schools and in universities to help develop carreers, guided by the lebanese market.

it should start in schools

it's important to make a list of the jobs really needed in Lebanon

just increase your presence in schools for students who are in classes after the patent(brevet)

Know the local market beyond the big names. Professionals should have connection with local and multinational organizations Career events should be well organized for the purposes of recruitment and not as an advertising campaign for the company. Should highlight the potential opportunities existing regionally and internationally

LA CREATION D'EMPLOIS !

La question est tres complexe et necessite la redaction d'un article tres dense. En bref et sans tomber dans le reductionnisme, il faut travailler en parralele sur trois axes : - recherche etudes statistiques, questionnaires standardises et etalonnes, exploration prospective du marche;, etc.) - legislation (creation de structures et de reglementations nationales) - formation (programmes de formation d'orientateurs professionnels ""professionnels"")

Leave the student alone to choose, and if in case he can't choose. then, all what you need to do, is to help him how to choose and not to choose for him :)

Les professionnels de l'orientation dans les écoles doivent être au courant des changements du marché du travail, et prendre le temps de trouver tous les moyens pour l'élève d'accéder aux études puis au métier qui lui correspondent. Dans les universités, les Chefs de departements/d'Instituts doivent pouvoir conseiller les étudiants sur toutes possibilités de carrière et les opportunités qui se présentent; ils doivent aussi indiquer à leurs étudiants le bureau d'orientation le plus proche (dans ou hors de l'université).

Make informed career change decisions about yourself Understand what makes you tick
 Stop applying for the wrong jobs Stop putting the wrong CV's forward Get your career moving in the direction you want Re-tooling career options and related topics in : tactical steps to your resume or career objectives; Building confidence in working for yourself. We need Courses in Business Writing Skills, Effective Communication/Interpersonal Skills, Listening Skills, Advanced Reading Skills, Dealing with Difficult People and Goal Seeking. E-books, training packages, other personal development courses, free writing tips, and related workbooks also available.

Make it more widely known and effectively working, not only upon request, as most people don't know about it.

Make more studies about working opportunities in Lebanon and market needs and publish them. Have more knowledge of the newest fields in education (such as Speech and Language Therapy, Psychomotor Therapy, ...) which are new and very demanded especially in certain regions but are still unknown to the society.

Make sure that schools and universities have career guidance counselors to help students decide on future majors/careers.

Media

More jobs, more companies... more fields of work, stop being snobs... and the only matters raise the salary so we can afford everything and live a normal life.

More programmes in school, in universities... and especially in work!

more psychometric tests and interviews

More Publicity and integration!

More School Awareness Workshops Guidance Sessions per month Individual Evaluation real cases more international exposure

More work should be done at the early school secondary levels. There is no research whatsoever on what majors have reached total saturation in Lebanon due to popular beliefs and common trends (i.e. Engineering and the sciences such as biology, chemistry, physics). There is absolutely no market for the sciences in Lebanon as we are not a research-producing nation in such areas. Furthermore, career guidance counselors as well as schools still maintain and perpetuate general stereotypes about what jobs or majors are ""better"" than others. More education should be given to those people. I have chosen a rather unconventional career track, organizational psychology (like you guys :)) and I keep finding job opportunities and a great need for labor force in research and the social sciences. For instance, did you know that all of Lebanon's clinical psychologists are overbooked? It's a shame schools and the government still brainwash students into Engineering jobs. And then graduates complain there are no jobs in Lebanon. Lack of planning to the max.

Must have psychologists in schools to undergo tests for each student in order to help him choose his career with the help and advice of a career guidance counselor. Face to face interviews Thank you

My suggestion : to organise jobs , to make conference , to have a business plan , to know the demand of the market and the companies.

My suggestions are to have specialized Departments in schools and Universities who are willing to guide students without charging them more or include their services in the annual University fees.

No comment.. change everything

Nothing can improve Lebanon:p

nothing more.. just thank you for this survey and i think that it is up to you to improve career guidance in Lebanon but mainly we should start with our mentality in general...we have to change.. thank you

Nothing to add from what was written in the previous page.

Only to be honest and willing to help these students who are torned by their parents advice, their teachers advice, their wish to travel, the country's limited options and job opportunities, the low salaries according to the country's mode of living,.....

open up the horizon of students by introducing to them the many choices of jobs available in the market today give them access to the necessary tools to understand their strength and feel empowered

Organized meetings with students in schools to help them choose the right choice for their future depending on their skills and the market need. Developing new majors in univeristies that are not availablke until now in lebanon ;this will make leads to new careers opportunities. Helping students to find jobs in Lebanon instead of leaving the country for opportunities abroad. I am ready to help in this project that I really appreciate. For help, my phone number xxxxxxxx

Orientation in schools is fundamental !!!

Pour quoi le questionnaire est en anglais ????

PREPARE THE CAREER GUIDANCE AS SOON AS POSSIBLE DURING COLLEGE/HIGH-SCHOOL YEARS. MOROVER, SCHOOL PROGRAMMES MUST CONTAIN EMBODIED ART COURSES (MUSIC, PAINTING/DRAWING, SCULPTING...). I.E., NOT AS EXTRA-SCHOLAR ACTIVITIES. THIS WILL IMPROVE THE ALL-OVER COGNITIVE ABILLITIES OF THE STUDENT. ALSO, SPORT HOURS IN SCHOOL/COLLEGE YEARS MUST BE INCREASED.

Presence in Schools and Universities Having professional plans to guide the students (i.e why? how? when? what? ...) Assessment tests to measure the students strenght and based on it provide recommendations

present themselves on Media, on televisions through facebook

Professional Help Desks in Schools University and in private institutions

Program implementation in schools and universities

Provide statistics and information about labor market Provide information about missing skills/metiers on the market Provide internship opportunities/shadowing at an early age to be able to observe and experiment

provide studies at university concerning the career counseling

psychometric tests are essential and should be introduced in schools, furthermore administered shen applying for a major for undergraduate studies. In Lebanon, social pressure may channel students into careers they are not fit for, therefore, they will be unhappy at work and their productivity reduced.

Publicity Campaign

recently many recruiting agencies offer this service (like careers and business lobby and many more) and it feels like the employee is being scammed all the time because the people counselling are not always qualified. and to be honest it sounds fishy to have to pay (quite a big amount of money sometimes) for something that might not even convince you or coming from a non credible source. This service should be free of charge and advertised in Schools and universities. and they should do career guidance forums, where you can meet with career practitionars all the day. the practitionars should be certified. and this whole concept needs to be well advertised Thank you

Schools , universities and consulting and training organizations ""Must"": -raise more awareness on the importance of this program in order to help us understand and analyze our skills, abilities, and potential based on our interests and qualifications. * Please we need more guidance and training on how to develop our careers after we graduate from universities.

Schools should have career guidance offices with enough material to assist the learners in their decision making. Providing them with diverse opportunities that they don't know about.

Schools to allocate dedicated resources Schools to invite professional people to talk about their day-to-day work HR agencies to specialize in career guidance Companies to take more internship Universities and private and public sectors to strengthen their cooperation schools, universities, firms and the government should/must cooperate to organize career guidance to help students in their orientation.

Should be a part of last year of school program and last year of university program, so schools and universities should give a course on the job opportunities in Lebanon.

Government should oblige schools and universities to do

should be enforced in every school / uni... provided through seminars... have state officers deliver the required Hasta Siempre !

should be started from School....

Should have a career guidance in public and private schools and Uni, Should have more events to help the student in choosing their preferable future career.

Simply incorporate career guidance into our schools and universities, and make it obligatory for children and adults to be supported and guided to find what career is best for them, according to their abilities and talents. Providing students with a chance to discover themselves years before they enter the huge fields of competition and challenge that the world imposes on us, leading to a better understanding of the future and to a better utilization of individual abilities and talents, which we will come about when the right people are put in the right place.

since i have no idea about the career guidance in lebanon , i don't have questions , i don't have much of information to discuss this program

Start by creating the awareness in universities and schools

Start implementing this idea at first on TV talk shows so that the parents would be interested and start orienting their children about their future, than at school to be as a requirement for 3 or 4 times per year starting (second, premiere & terminal) and then at the university where it would be more professional and one would be knowing what he wants and what is his next step.

Starting from the school, so the person is going to have some ideas about majors when he wants to enter to the university.

Statistics department to assess current need. Career guidance interview with university representative when applying to universities.

stop wasta

Students should get more help through the labyrinth of application process.... And University panels...

The only time I used such services was in fact to eliminate the majors I was not interested in, the real decision to select a given path is (and should remain) always personal the presence of career guidance at the level of public schools or universities is necessary to help the individuals of low educational level

The work is very superficial with students They are not giving a clear idea to students about the majors and careers We need to explain to students in a very concrete way, to help them understand something they never knew, in order to understand the choices they are taking. With a hard work, career guidance in Lebanon may improve in the far future... Thank You for your effort.

there is a need to have a case by case student in universities more than schools and specially during the 1st year of university studies

There Is No Career In Lebanon O_O

They are at their first steps. Should have tests done to students based upon their grades and preferences.

They definitely need to have them in Schools. Preferably starting 3 yaers prior to graduation. A research on the country needs and dierction and providing opportunities to graduating students is also crucial.

they need to identify the individual work preferences and advise him on the career which has job requirements that matches his work preferences so he can excel in his job as he will be motivated and invest a good energy in his job.

they should be present and known more in schools and univesities.

they should exist

They should really care about what they do. They shouldnt just do their guidance without really wanting to guide

to be part of school program

To have an updated career guidance related to market need

to have more than one visit to the school to know what the student love to be able to guide him

To market this idea in schools and universities To have the back up of the private sector as i don't really trust the seriousness of the public sector To organize visits to companies in different sectors To know what are the market requirements and needs Understand the profile of the students to be able to guide them practically and not only by theory

University boards need to be aware of how important career guidance is, and apply them on all students, specially fresh starters. Schools also need to have career guidance for students in high school levels, we barely have this service in Lebanon, so we need to have it implemented before talking about improving it.

we all need to have the correct career information help to know what the right choice is and how we can discover and reach our objectives. suggestions: - careers web sites -services that develop career management skills (specially at school) -employees in the career of?ce's visit schools, run class talks and provide small-group guidance and short personal interviews. -secondary schools should have guidance counsellor Career guidance is very important to make the right decision.

we can improve it through many ways like usinig media, Internet, magazines .we have to make the people more alert concerning this issue .the government should have a role too,it has to reinforce this subject more and to have a better role in schools and universities.

we must have at leat a public career guidance in each region and make it known to the public if there is!!

we need high career guidance starting from the school, we need to focuse on students ability and this will be discovered on primery school so then we can guide them to take the right career in their future.

we need in lebanon a career guidance cause the new generation are changing a lot major they don t know what is their target

We need professional career guidance in all schools and universities with a clear view and understanding of both the current market and future job market expectations

We should have a career guidance office in each campus of the same university

When i was in school, it was a during the war and this service was not available. During my university studies, there was no career guidance as well. I stongly believe that there is a need for this type of service to guide students/professionals in their careers based on their skills/potentials and not let them choose based on the market employment and bouche-a-oreille. This service should not be only for agencies to make money, it should be highly professional.

why do elephants never ride bikes? cz they don't have thumbs to ring the bell!

Workshopees to build people maturity. Create a law that obligates educational insitute to provide this service
young people who have a perfect knowledge of the country's needs and new lines of professions

Note. Career guidance opinion survey 2011: Please list your suggestions to improve career guidance in Lebanon

Appendix I

CRM Final Version - 25 items

CAREER PLANNING: 7 items

- 3/ I plan to discuss my education/career plans with my teacher(s)
- 4/ I plan to discuss my career plans with a career advisor
- 6/ While planning my education/career I take into consideration my career advisor suggestions/advice
- 8/ While planning my education/career I take into consideration field experts suggestions/advice
- 10/ While planning my education/career I take into consideration current market trends
- 13/ I plan to take a career assessment to validate that I possess the required abilities to pursue my chosen major/career
- 15/ I go to the library to get educational and occupational information

CAREER EXPLORATION: 4 items

- 1/ I plan to discuss my education/career plans with my parents/relatives
- 2/ I plan to discuss my education/career plans with my friends
- 7/ While planning my education/career I take into consideration my parents/relatives suggestions/advice
- 9/ While planning my education/career I take into consideration my friends suggestions/advice

WORLD OF WORK KNOWLEDGE: 6 items

- 26/ I pick a major/career that will bring me a high income despite of my interests in it
- 27/ In a job interview, it is fundamental to tell the interviewer that you will do any work as long as the job suits you.
- 28/ While moving through their life stages individuals expect their life to get easier
- 34/ If I have the highest grades among students, I will choose the most difficult and demanding major/career
- 35/ I choose a major/career based on my network connections who promised to place me in a secure job in spite of my interests and abilities
- 38/ In a job interview, it is fundamental to decide about the salary package

DECISION MAKING: 8 items

- 5/ I consider doing an internship/job to discover my educational fields of interests
- 14/ In a job interview, it is fundamental to explore if the job match your expectations
- 29/ I choose which major/career to pursue from a list of possible majors/careers that match my interests
- 30/ I decide what my career goals are for the next 4 years
- 31/ I decide what actions to take if I struggle with my current major/career
- 32/ I agree to change my major/career in case I did not enjoyed it
- 33/ I want to pursue my favourite major/career even though my career advisor suggested a different one
- 37/ I decide which career fits my professional interests

Appendix J

National Career Guidance survey 2013 (section 2): Demographic data

Demographic variables for data analysis/Variables démographiques pour analyse des données**Gender – الجنس – Sexe**

- ☐ Male – ذكر – Masculin
☐ Female – انثى – Feminin

Year of Birth – سنة الولادة – Année de naissance

What is your region of origin? – الى اي محافظة تنتمي؟ – De quelle région êtes-vous originaire?

For example, if your father is from Zahle, your region of origin will be Bekaa - على سبيل المثال اذا كان والدك من زحلة فتكون - Bekaa
 Par exemple, si ton père est de Zahlé, ta région d'origine sera Bekaa

- ☐ Mount Lebanon – جبل لبنان – Mont Liban
☐ Beirut – بيروت – Beyrouth
☐ Bekaa – البقاع – Bekaa
☐ South – الجنوب – Sud
☐ North – الشمال – Nord
☐ My father is not Lebanese - والدي ليس لبناني الاصل - Mon père n'est pas d'origine Libanaise

Place of residency – مكان الإقامة – Region de residence

- ☐ Mount Lebanon – جبل لبنان – Mont Liban
☐ Beirut – بيروت – Beyrouth
☐ Bekaa – البقاع – Bekaa
☐ South – الجنوب – Sud
☐ North – الشمال – Nord

Expected year of graduation – تاريخ المتوقع للتخرج – Année de remise du diplôme

University name – اسم الجامعة – Nom de l'université

University region – موقع الجامعة – Region de l'université

- ☐ Mount Lebanon – جبل لبنان – Mont Liban
☐ Beirut – بيروت – Beyrouth
☐ Bekaa – البقاع – Bekaa
☐ South – الجنوب – Sud
☐ North – الشمال – Nord

In which degree level are you currently enrolled? – اي نوع من الشهادات تتابع حالياً؟ – Dans quel type de diplôme vous êtes actuellement inscrit(e)?

- ☐ Bachelor - شهادة البكالوريوس - Licence
☐ Master - شهادة الماجستير - Master
☐ Doctorate - شهادة الدكتوراه - Doctorat

During your university studies, did you change your major? – خلال دراستك الجامعية هل قمت بتغيير مجال تخصصك؟ – Au cours de vos études universitaires, avez-vous changé votre filière?

- ☐ Yes - نعم - Oui
☐ No - كلا - Non

If yes, how many times did you change your major? - إذا كان جوابك بنعم، فكم مرة قمت بتغيير مجال تخصصك؟ - Si oui, combien de fois avez-vous changé votre filière?

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ >=5

Parental educational level - المستوى التعليمي للأهل - Niveau d'éducation des parents

	Did not finish high school - لم يكمل شهادة البكالوريا N'a pas terminé le Baccalauréat	High school -البكالوريا- Baccalauréat	University - جامعة - Université
Father - الوالد - Père			
Mother - الوالدة - Mère			

Home annual income (monthly income x 12) - (المدخل السنوي للعائلة (المدخل الشهري x 12) - Revenu annuel du foyer familial (revenu mensuel x 12)

- ☐ Less than - أقل من - Moins de \$5400
☐ Between - بين - Entre \$5401 - \$12000
☐ Between - بين - Entre \$12001 - \$24000
☐ Between - بين - Entre \$24001 - \$36000
☐ Between - بين - Entre \$36001 - \$48000
☐ Between - بين - Entre \$48001 - \$60000
☐ Above - أكثر من - Plus que \$60000

Religion - الدين - Religion

- ☐ Christian - مسيحي - Chrétien
☐ Muslim - مسلم - Musulman
☐ Druze - درزي - Druze
☐ Other: _____

Appendix K

CRM V.1 - 38 items

CAREER PLANNING: 13 items

1. I plan to discuss my education/career plans with my parents/relatives
2. I plan to discuss my education/career plans with my friends
3. I plan to discuss my education/career plans with my teacher(s)
4. I plan to discuss my career plans with a career advisor
5. I consider doing an internship/job to discover my educational fields of interests
6. While planning my education/career I take into consideration my career advisor suggestions/advice
7. While planning my education/career I take into consideration my parents/relatives suggestions/advice
8. While planning my education/career I take into consideration field experts suggestions/advice
9. While planning my education/career I take into consideration my friends suggestions/advice
10. While planning my education/career I take into consideration current market trends
11. While planning my education/career I take into consideration information I get from materials such as books, magazines, Internet etc.
12. I plan to choose different major/career options in case I couldn't pursue my first choice
13. I plan to take a career assessment to validate that I possess the required abilities to pursue my chosen major/career.

CAREER EXPLORATION: 7 items

14. In a job interview, it is fundamental to explore if the job match your expectations
15. I go to the library to get educational and occupational information
16. I know the knowledge, skills and abilities required for the job I want to do
17. I know the work conditions of the job I want to pursue
18. I know the market needs of the job I want to do
19. I know the different career paths that lead to the job I want to do
20. I would take initiatives and get information from materials such as books, magazines, internet etc. to help me design my education/career plan

WORLD OF WORK KNOWLEDGE: 8 items

21. I know the educational requirements of the job I want to do
22. It is easy to change from engineering to business
23. It is essential to make people like you when you start a new job
24. It is essential to show that you are your own boss when you start a new job
25. Career related activities such as job fairs give me information about my potential future job
26. I pick a major/career that will bring me a high income despite of my interests in it
27. In a job interview, it is fundamental to tell the interviewer that you will do any work as long as the job suits you.
28. While moving through their life stages individuals expect their life to get easier

DECISION MAKING 10 items

29. I choose which major/career to pursue from a list of possible majors/careers that match my interests
30. I decide what my career goals are for the next 4 years
31. I decide what actions to take if I struggle with my current major/career
32. I agree to change my major/career in case I did not enjoyed it
33. I want to pursue my favourite major/career even though my career advisor suggested a different one
34. If I have the highest grades among students, I will choose the most difficult and demanding major/career
35. I choose a major/career based on my network connections who promised to place me in a secure job in spite of my interests and abilities
36. If I hesitate between two majors/careers, I choose the one that needs less effort
37. I decide which career fits my professional interests
38. In a job interview, it is fundamental to decide about the salary package

Appendix L

CRM V.2 - 32 items (outcome of CRM pilot study)

CAREER PLANNING: 8 items

- 3/ I plan to discuss my education/career plans with my teacher(s)
- 4/ I plan to discuss my career plans with a career advisor
- 6/ While planning my education/career I take into consideration my career advisor suggestions/advice
- 8/ While planning my education/career I take into consideration field experts suggestions/advice
- 10/ While planning my education/career I take into consideration current market trends
- 11/ While planning my education/career I take into consideration information I get from materials such as books, magazines, Internet etc.
- 13/ I plan to take a career assessment to validate that I possess the required abilities to pursue my chosen major/career.
- 15/ I go to the library to get educational and occupational information

CAREER EXPLORATION: 7 items

- 1/ I plan to discuss my education/career plans with my parents/relatives
- 2/ I plan to discuss my education/career plans with my friends
- 7/ While planning my education/career I take into consideration my parents/relatives suggestions/advice
- 9/ While planning my education/career I take into consideration my friends suggestions/advice
- 22/ It is easy to change from engineering to business
- 28/ While moving through their life stages individuals expect their life to get easier
- 34/ If I have the highest grades among students, I will choose the most difficult and demanding major/career

WORLD OF WORK KNOWLEDGE: 6 items

- 23/ It is essential to make people like you when you start a new job
- 24/ It is essential to show that you are your own boss when you start a new job
- 26/ I pick a major/career that will bring me a high income despite of my interests in it
- 27/ In a job interview, it is fundamental to tell the interviewer that you will do any work as long as the job suits you.
- 35/ I choose a major/career based on my network connections who promised to place me in a secure job in spite of my interests and abilities
- 38/ In a job interview, it is fundamental to decide about the salary package

DECISION MAKING: 11 items

- 5/ I consider doing an internship/job to discover my educational fields of interests
- 14/ In a job interview, it is fundamental to explore if the job match your expectations
- 17/ I know the work conditions of the job I want to pursue
- 19/ I know the different career paths that lead to the job I want to do
- 21/ I know the educational requirements of the job I want to do
- 29/ I choose which major/career to pursue from a list of possible majors/careers that match my interests
- 30/ I decide what my career goals are for the next 4 years
- 31/ I decide what actions to take if I struggle with my current major/career
- 32/ I agree to change my major/career in case I did not enjoyed it
- 33/ I want to pursue my favourite major/career even though my career advisor suggested a different one
- 37/ I decide which career fits my professional interests

Appendix M

Research partnership letter with Ministry of Education and Higher Education

Lebanese Republic

Ministry of Education & Higher Education
General Directorate of Higher Education

General Director

Ref.: 478/2013

Date: 2013 04 12

To whom it may concern,

I, Dr. Ahmad Jammal, hereby confirm the partnership of the Directorate General of Higher Education (DGHE) with Miss Sakina Loutfallah who is conducting a doctorate research on Career Readiness of University Students in Lebanon. I kindly request from you to assist her and facilitate the data collection by sending by e-mail the related questionnaire to all your students and career guidance personnel. This research is crucial as it will give the DGHE, academic community as well as career guidance practitioners access to additional scientific data that will help us for ways to move forward.

Thank you for your full cooperation on this matter.

Sincerely
Director General of Higher Education



Ahmad JAMMAL

General Directorate of Higher Education
UNESCO - Habib Abi Chahla Square - 6th Floor - Beirut - Lebanon
Tel: 00 961 1 77 25 00 **Fax:** 00 961 1 77 25 29
Email: ajammal@higher-edu.gov.lb **or** ajammal@ieec.org **URL:** www.higher-edu.gov.lb

Appendix N

Posting of the Lebanese University invitation to participate in the national survey

CAREER GUIDANCE NATIONAL STUDY 2013

Dear Students,

A very important study is being conducted on a national level, which will help to create a tool in career guidance for students in Lebanon. Your input is very crucial. Please visit www.CareerGuidanceLebanon.com and fill in the online survey, it will take you only 3 minutes. Thank you.

أعزائي الطلبة،

يجري كشف استطلاع مهم جدا " على الصعيد الوطني الذي قد يتم الى تصميم أداة تستعمل في التوجيه المهني للطلاب في لبنان. ان تعاونكم و مشاركتكم في هذا الاستطلاع هو ذات أهمية كبرى. لذلك نرجو منكم زيارة الموقع الآتي و تعبئة الاستطلاع على الانترنت الذي لا يتطلب أكثر من ٣ دقائق من وقتكم: www.CareerGuidanceLebanon.com وشكرا.

Chers Etudiants,

Une importante étude en Orientation Professionnelle a été lancée à l'échelle nationale dont un des buts est de créer un outil d'orientation professionnelle pour aider les étudiants. Votre participation est cruciale. Merci de visiter le site www.CareerGuidanceLebanon.com et remplir l'enquête qui prendra 3 minutes de votre temps. Merci

Appendix O

Lebanese University approval letter to collect data on campuses


Université Saint-Joseph - Beyrouth
جامعة القديس يوسف - بيروت

الإدارة المركزية - الدائرة الإدارية المشتركة
 رقم: ١٦٤٤
 ورد في: ١٣/١٢/١٨

FACULTÉ DES LETTRES ET DES SCIENCES HUMAINES
كلية الآداب والعلوم الإنسانية

حضرة البروفسور عدنان سيد حسين المحترم،
رئيس الجامعة اللبنانية

حضرة البروفسور عدنان سيد حسين المحترم،
تحية طيبة و بعد،

أفيدكم اني طالبة دكتوراه في قسم علم النفس المهني في احدى جامعات لندن و أود أن اعلّمكم بأنني اخترت الارشاد المهني كموضوع لأطروحتي.

بالتعاون مع وزارة التربية و التعليم العالي لقد قمت باجراء استطلاع وطني حول طلاب الجامعات في لبنان. أنا بحاجة على الأقل الى ١٠,٠٠٠ استجابة التي تمثل جميع الجامعات في لبنان. علماً ان الجامعة اللبنانية تضم النسبة الأكبر من الطلاب في لبنان لذلك أنا بحاجة الى ما لا يقل عن ٦,٠٠٠ استجابة من طلاب الجامعة اللبنانية بكافة فروعها.

لذا التمس و أرجو منكم المساعدة في امكانية ابلاغ الرسالة التالية الى جميع طلاب الجامعة اللبنانية بكافة فروعها:

أعزائي الطلبة،

يجري كشف استطلاع مهم جداً "على الصعيد الوطني الذي قد يثمر الى تصميم أداة تستعمل في التوجيه المهني للطلاب في لبنان. ان تعاونكم و مشاركتكم في هذا الاستطلاع هو ذات أهمية كبرى. لذلك نرجو منكم زيارة الموقع الاتي و تعبئة الاستطلاع على الانترنت الذي لا يتطلب أكثر من ٣ دقائق من وقتكم: www.careerguidancelebanon.com وشكراً.

"Dear Students, a very important study is being conducted on a national level which will help to create a tool in career guidance for students in Lebanon. Your input is very crucial. Please visit www.careerguidancelebanon.com and fill in the online survey it will take you only 3 minutes. Thank you."

ان نسبة مشاركة الطلاب في هذا المسح تعكس صورة ايجابية و بناءة لمستوى التعليم العالي لدينا في لبنان لدى مركز البحوث الدولي. لذا أرجو من سعادتك النظر في موضوعي هذا شاكرة لكم حسن تعاونكم.

وتفضلوا بقبول وافر الاحترام و التقدير.

مع المودة على
 الرئيسة الجامعة اللبنانية
عدنان السير حسين

سكونة لطف الله
 عالم نفسي للعمل و المؤسسات
 مسؤولة فرع علم نفس العمل و المؤسسات
 +961-1-421000 ext: 5208 / 03-442388
sakina.loutfallah@usj.edu.lb

www.usj.edu.lb

Campus des sciences humaines, rue de Damas,
 B.P. 17-5208 Mar Mikhaél, Beyrouth 1104 2020 - Liban
 Tél : 961-1-421520 / 421000 ext. 5129
 Fax : 961-1-421055, Email : flsh@usj.edu.lb

Bureau administratif de l'USJ
 42, rue de Grenelle, 75343 Paris Cedex 07
 Tél : 33-1-45491211, Fax : 33-1-45499877

حرم العلوم الإنسانية، طريق الشام،
 ص.ب: ١٧-٥٢٠٨ مار مخايل، بيروت ٢٠٢٠ ١١٠٤ - لبنان
 هاتف: ٩٦١-١-٤٢١٥٢٠ / ٩٦١-١-٤٢١٠٠٠ مقسم: ٥١٢٩
 فاكس: ٩٦١-١-٤٢١٠٥٥

Appendix P

Official statistics 2013 provided by the Center for Educational Research and Development

توزع طلاب مؤسسات التعليم العالي بحسب الجنس والجنسية للعام الدراسي 2012-2013

الجامعة	الجنس والجنسية		الجنس			الجنسية	
	ذكر	انثى	المجموع	لبناني	غير لبناني	المجموع	
الجامعة اللبنانية	24343	47097	71440	65797	5643	71440	
جامعة بيروت العربية	6324	4729	11053	7973	3080	11053	
جامعة القديس يوسف	3551	6104	9655	9025	630	9655	
الجامعة الأميركية في بيروت	3974	4080	8054	6211	1843	8054	
جامعة الروح القدس الكسليك	3393	4128	7521	7364	157	7521	
الجامعة اللبنانية الأميركية	3202	3211	6413	5108	1305	6413	
جامعة هايكازيان	284	422	706	645	61	706	
جامعة سيدة اللويزة	4467	2738	7205	6859	346	7205	
معهد الدعوة الجامعي للدراسات الإسلامية	271	128	399	175	224	399	
جامعة الحكمة	1591	1560	3151	3115	36	3151	
كلية الإمام الأوزاعي للدراسات الإسلامية وكلية إدارة الأعمال	1578	1947	3525	399	3126	3525	
جامعة الشرق الاوسط	111	91	202	169	33	202	
جامعة المقاصد في بيروت	86	77	163	128	35	163	
معهد القديس بولس للفلسفة واللاهوت	64	21	85	35	50	85	
جامعة البلمند	2654	2296	4950	4524	426	4950	
كلية اللاهوت للشرق الأدنى	5	3	8	4	4	8	
جامعة بيروت الإسلامية (كلية الشريعة)	345	232	577	383	194	577	
جامعة الجنان	1149	672	1821	676	1145	1821	
جامعة طرابلس	88	140	228	160	68	228	
الجامعة الإسلامية في لبنان	2518	1779	4297	3339	958	4297	
المعهد العالي للأعمال	61	87	148	146	2	148	
الجامعة الاطونانية	1591	850	2441	2420	21	2441	
جامعة الحريري الكندية	658	318	976	907	69	976	
جامعة التكنولوجيا والعلوم التطبيقية اللبنانية الفرنسية	937	305	1242	1229	13	1242	
الجامعة اللبنانية الاممانيّة	181	237	418	415	3	418	
جامعة الكفاءات	629	529	1158	1141	17	1158	
الجامعة الاميركية للتكنولوجيا	267	256	523	523	0	523	
جامعة العائلة المقدسة	90	313	403	400	3	403	
الجامعة	الجنس والجنسية		الجنس			الجنسية	
	ذكر	انثى	المجموع	لبناني	غير لبناني	المجموع	
شركة صيدون للثقافة والتعليم العالي	209	164	373	259	114	373	
جامعة الاداب والعلوم والتكنولوجيا في لبنان	4918	2931	7849	6930	919	7849	
الجامعة الاميركية للثقافة والتعليم	2643	2216	4859	4642	217	4859	
الجامعة الاميركية للعلوم والتكنولوجيا AUST	2908	1982	4890	4449	441	4890	
الجامعة اللبنانية الكندية	554	410	964	950	14	964	
الجامعة الحديثة للإدارة والعلوم (الدامور)	914	1111	2025	1992	33	2025	
معهد جوبا الجامعي للتكنولوجيا	137	116	253	253	0	253	
الجامعة العربية المفتوحة	1804	1389	3193	2986	207	3193	
الجامعة اللبنانية الدولية	8665	9135	17800	16093	1707	17800	
جامعة المنار	311	185	496	462	34	496	
معهد الرسول الاعظم الجامعي للعلوم الصحية	70	183	253	253	0	253	
الصليب الاحمر اللبناني	30	41	71	71	0	71	
المجموع العام	87575	104213	191788	168610	23178	191788	

Appendix Q

Q statements

1. **I do not use assessment tools in my work with students**
Je n'utilise pas d'outils d'évaluation dans mon travail auprès des étudiants.
انا لا استعمل وسائل التقويم (الروائز) في عملي مع الطلاب
2. **It is hard to assist students in investigating work opportunities**
C'est difficile d'aider les étudiants dans leurs recherches d'emplois
يصعب مساعدة الطلاب في البحث عن فرص للعمل
3. **The majority of students do not know how to evaluate their options**
La plupart des étudiants ne savent pas évaluer les opportunités qui se présentent à eux
أغلبية الطلاب لا يعرفون كيف يقيمون الخيارات المفتوحة أمامهم
4. **Students do not believe in the benefits of career guidance services in Lebanon**
Les étudiants ne croient pas aux avantages des services d'orientation professionnelle au Liban
لا يؤمن الطلاب بفوائد خدمات التوجيه المهني المتوفرة في لبنان
5. **I feel that students are not well informed about career guidance services**
J'ai l'impression que les étudiants ne sont pas bien informés sur les différents services d'orientation professionnelle
أشعر ان الطلاب ليسوا على اطلاع كاف بشأن خدمات التوجيه المهني
6. **Access to labour trends and market statistics is limited**
L'accès aux statistiques du marché du travail et de ses tendances est limité
إن الوصول إلى اتجاهات أسواق العمل وإلى إحصائيات الأسواق محدود جدا
7. **The majority of the students who seek career guidance hesitate to take career related decisions**
La plupart des étudiants qui cherchent des conseils d'orientation professionnelle hésitent à prendre des décisions reliées à leur carrière
أغلب الطلاب الذين يسعون إلى التوجيه المهني يترددون باتخاذ القرارات المتعلقة بمسارهم المهني
8. **I think that students are not interested in career guidance services**
Je pense que les étudiants ne sont pas intéressés par les services d'orientation professionnelle
أعتقد ان الطلاب لا يهتمون بخدمات التوجيه المهني
9. **It is not necessary to coordinate with government on the delivery of career guidance services**
Il n'est pas nécessaire de coordonner avec le gouvernement concernant les prestations de services d'orientation professionnelle
ليس من المفروض ان ننسق مع الحكومة عندما نؤمن خدمات التوجيه المهني
10. **I usually help students to make educational choices**
J'aide souvent les étudiants à faire des choix dans leurs études
عادة، أساعد الطلاب كي يتخذوا خيارات بشأن مسارهم التعليمي
11. **I enjoy assisting students to understand themselves**
J'aime aider les élèves à se comprendre eux-mêmes
أحب مساعدة الطلاب على فهم ذواتهم
12. **It is beneficial for a student to have career portfolios**
Il est bénéfique pour un étudiant d'avoir un portfolio de carrière
من المفيد ان يكون للطلاب ملفاً مهنيًا
13. **I think that I have the required qualifications to practise career guidance**
Je pense que j'ai les qualités requises pour pratiquer l'orientation professionnelle
أعتقد انه لدي المؤهلات المطلوبة لممارسة التوجيه المهني
14. **I think that career guidance is fundamental for all students**
Je pense que l'orientation professionnelle est fondamentale pour tous les élèves
أعتقد ان التوجيه المهني أساسي بالنسبة لجميع الطلاب
15. **Career guidance national guidelines are very important for my job**
Les directives nationales d'orientation professionnelle sont très importantes pour mon travail
إن التعليمات الوطنية بخصوص التوجيه المهني مهمة جدًا في عملي

16. **Most of the students that I meet are aware of how to plan their career**
La plupart des étudiants que je rencontre sont conscients de la façon dont ils envisagent leur carrière
أكثر الطلاب الذين أقابلهم يدركون كيفية التخطيط لمسارهم المهني
17. **Students think that career guidance at the university/school is efficient**
Les étudiants pensent que l'orientation professionnelle à l'université/école est efficace
يعتقد الطلاب ان التوجيه المهني في الجامعة فعال
18. **I am confident about the positive impact of my career guidance interventions**
Je suis confident quant à l'impact positif de mes interventions d'orientation professionnelle
أنا أثق كثيرا بالتأثير الإيجابي لمداخلاتي في التوجيه المهني
19. **Coordinating with employers and training providers is important in my job**
La coordination avec les entreprises et les prestataires de formation professionnelle est important dans mon travail
للتنسيق مع أرباب العمل ومع المسؤولين عن التدريب أهمية في عملي
20. **I only assist students who seek career guidance advice**
J'aide seulement les étudiants qui cherchent des conseils d'orientation professionnelle
أساعد فقط الطلاب الذين يبحثون عن التوجيه المهني
21. **The most frequent service that I provide to students is career information**
Le service le plus fréquent que je fournis aux étudiants est le renseignement de carrière
الخدمة التي أغلب ما أؤديها للطلاب، هي تزويدهم بالمعلومات حول المسارات المهنية
22. **Organizing sessions that focus on job skills and personal development is part of my job**
Organiser des séances axées sur les compétences professionnelles et le développement personnel fait partie de mon travail
إن تنظيم الجلسات التي تركز على المهارات المهنية، والتطوير الشخصي، هي جميعها جزء من عملي
23. **I invite professionals from different sectors to talk about their profession**
J'invite des professionnels de différents secteurs pour parler de leur profession
أدعو المهنيين من مختلف القطاعات ليتحدثوا عن أعمالهم ومهنتهم
24. **I trust that students benefit from Open Day in Universities**
Je pense que les journées Portes Ouvertes dans les universités sont bénéfiques pour les étudiants
أعتقد أن الطلاب يستفيدون من الأيام المفتوحة التي تنظمها الجامعات
25. **I think anyone can guide students in their career choices.**
Je pense que n'importe qui peut guider les étudiants dans leur choix de carrière
أعتقد إنه يمكن لأي كان توجيه الطلاب في خياراتهم في المسارات المهنية
26. **I use free psychometric tests found on the internet**
J'utilise des tests psychométriques disponibles gratuitement sur internet
أنا استعمل روائز نفسية منشورة على الإنترنت
27. **I prefer to use an unstructured guidance approach**
Je préfère utiliser une approche d'orientation professionnelle non structurée
أفضل استعمال المقاربة غير المنهجية في التوجيه المهني
28. **I do not have the necessary theoretical knowledge in career guidance**
Je ne possède pas les connaissances théoriques nécessaires pour pratiquer l'orientation professionnelle
لست ملم بنظريات التوجيه المهني اللازمة
29. **I apply foreign career guidance standards**
J'applique les normes étrangères d'orientation professionnelle
أنا أطبق الأصول الأجنبية للتوجيه المهني
30. **More funds are needed for career guidance services**
Des fonds financiers supplémentaires sont nécessaires pour les services d'orientation professionnelle
تحتاج خدمات التوجيه المهني إلى أموال أكثر تصرف عليها

Q Grid

Most Agree
3 4

[illegible]

Appendix S

Q study: demographic data sheet

Please read the attached consent participation form and choose one of the two following options:

- ☐ I agree to participate
- ☐ I do not agree to participate

1. GENDER

- ☐ Female
- ☐ Male

2. EMPLOYMENT STATUS

- ☐ Employee
- ☐ Free Lancer
- ☐ Self-employed

3. TYPE OF THE ORGANIZATION YOU ARE WORKING FOR

- ☐ Public school
- ☐ Private school
- ☐ Public university
- ☐ Private university
- ☐ Private Organization
- ☐ Public Organization

4. REGION OF THE ORGANIZATION YOU ARE WORKING FOR

- ☐ Beirut
- ☐ Mount Lebanon
- ☐ Bekaa
- ☐ South
- ☐ North

5. CURRENT JOB TITLE

6. OVERALL NUMBER OF YEARS OF PROFESSIONAL EXPERIENCE

7. NUMBER OF YEARS OF EXPERIENCE IN CAREER GUIDANCE

8. TYPE OF DEGREE

- ☐ High School
- ☐ Bachelor
- ☐ Master
- ☐ PhD

9. SPECIALIZATION NAME

10. LIST OF TRAINING AND/OR CERTIFICATIONS YOU HAVE IN CAREER GUIDANCE

11. COMMENTS

THANK YOU FOR YOUR INPUT

Appendix T

CG Professionals 2013 questions

1. In your opinion what is career guidance? (you may choose several options)

- services and activities intended to assist only students
- services and activities intended to make educational choices
- services and activities intended to manage their careers
- providing career information
- using assessment tools
- counseling interviews
- career education programmes
- all of the above
- other (please specify)

2. Based on your knowledge and/or experience, what does a career guidance practitioner do? (you may choose several options)

- helps students to make their own decisions according to what is available on the employment market
- assists students to understand themselves, including assessing their own achievements, abilities and interests
- implements students plans for higher education purposes
- administers tests and provides results
- assists students in using computer software and careers information and other resources
- all the above
- other (please specify)

3. Please indicate what career guidance services/events your school/university offers/organizes: (you may choose several options)

- advising students on academic programmes and jobs
- preparing students for university application and admission
- planning and preparation for university admissions tests such as SAT, TAGE-MAGE, TOEFL, GMAT
- informing students about financing that can be used to support advanced education and training
- developing career portfolios, which include test and grades results, examples of student work, and resumes and cover letters to prospective employers
- arranging job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations
- sponsoring workshops, classes, focus groups, and special presentations that focus on job skills and personal development
- providing specialized counseling and intervention services to provide students with individualized attention
- inviting professionals from different sectors to talk about their profession
- taking students to Open Day in Universities
- none of the above
- Other (please specify)

4. Do you have a career guidance office only dedicated to career guidance at your school/university?

Yes / no

5. Are you a full time career guidance practitioner (ie you do not practice other job/tasks)?

Yes / no

6. If no, what is/are your other job(s)/task(s)?**7. Where do you provide career guidance?(you may choose several options)**

- public school
- private school
- public university
- private university
- own private office
- Other (please specify)

8. Where do you think we must have career guidance practitioners?(you may choose several options)

- schools
- universities
- public career guidance agencies
- private career guidance agencies
- public employers
- private employers
- other (please specify)

9. Based on your experience, what is/are the best tool type(s) to deliver career guidance services in Lebanon (you may choose several options)

- face to face career guidance services
- online career guidance material
- online career guidance live counselling
- all the above

10. Do you think that parents/students will pay for career guidance services if they see the benefits of such services?

Yes / no

11. Do you think that a career guidance annual fee must be included in the school/university fees?

Yes / no / comment

12. Please choose one answer per row: Strongly Disagree / Disagree / Agree / Strongly Agree

1. I do not use assessment tools in my work with students
2. It is hard to assist students in investigating work opportunities
3. The majority of students do not know how to evaluate their options
4. Students do not believe in the benefits of career guidance services in Lebanon
5. I feel that students are not well informed about career guidance services
6. Access to labour trends and market statistics is limited
7. The majority of the students who seek career guidance hesitate to take career related decisions
8. I think that students are not interested in career guidance services
9. It is not necessary to coordinate with government on the delivery of career guidance services
10. I usually help students to make educational choices
11. I enjoy assisting students to understand themselves
12. It is beneficial for a student to have career portfolios
13. I think that I have the required qualifications to practise career guidance
14. I think that career guidance is fundamental for all students
15. Career guidance national guidelines are very important for my job
16. Most of the students that I meet are aware of how to plan their career
17. Students think that career guidance at the university/school is efficient
18. I am confident about the positive impact of my career guidance interventions
19. Coordinating with employers and training providers is important in my job
20. I only assist students who seek career guidance advice
21. The most frequent service that I provide to students is career information
22. Organizing sessions that focus on job skills and personal development is part of my job
23. I invite professionals from different sectors to talk about their profession
24. I trust that students benefit from Open Day in Universities
25. I think anyone can guide students in their career choices.
26. I use free psychometric tests found on the Internet
27. I prefer to use an unstructured guidance approach
28. I do not have the necessary theoretical knowledge in career guidance
29. I apply foreign career guidance standards
30. More funds are needed for career guidance services
31. Students need only information about which university to join for their superior studies
32. I provide to students a detailed interpretation of their results on any psychometric test
33. I need to be trained on certain career guidance skills
34. As part of my job, I feel it is important to arrange job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations

13. Are you interested to have, in Lebanon, a platform/association that provides academic and scientific data, sets quality standards and guidelines, gives evidence based knowledge and acts as a body of reference for practitioners?

Yes / no / comment

14. Please list the tasks that you do as a career guidance practitioner:

15. Please list the weaknesses we have in career guidance in Lebanon:

16. Please list your suggestions to improve career guidance in Lebanon:

17. General comments

Appendix U

Q Study data matrix for factor analysis

Loadings					
QSORT	1	2	3	4	5
1	0.6178x	0.0696	-0.2489	0.2714	0.3380
2	0.4236	0.0849	-0.0441	0.1385	0.6600x
3	0.1705	0.6703x	0.2955	0.4005	0.1248
4	0.5604	0.0498	0.2770	0.5370	-0.1274
5	0.6013x	0.1763	-0.1035	0.0253	0.2929
6	0.2932	0.3658	0.6508x	0.1271	0.1697
7	-0.0036	0.0883	0.1528	0.5950x	-0.0018
8	0.1164	0.1865	-0.2111	0.5319x	0.0161
9	0.6850x	0.1976	0.2252	0.1443	0.3050
10	0.7810x	0.2686	-0.1035	0.3325	0.2192
11	0.1644	0.6903x	0.1295	0.1154	0.1597
12	0.0870	0.6981x	-0.0596	0.1617	0.1263
13	0.4320x	0.0582	0.2300	0.0463	0.2697
14	0.1791	0.4283	0.2494	0.0935	0.3746
15	0.5777x	0.2799	-0.0129	0.2033	0.2661
16	0.2511	0.2476	0.0080	0.5040	0.4171
17	0.4058	0.5325	0.4557	0.3083	0.1473
18	0.2460	0.3920	0.4065	-0.0119	0.2950
19	0.5214x	0.2467	0.0917	0.2223	0.1757
20	-0.0374	0.2386	0.5561x	0.1508	0.0220
21	0.3382	0.4512	0.3454	0.3580	0.2083
22	0.4405	0.2436	0.3838	0.3211	0.0964
23	0.2050	0.6507x	0.2494	0.0015	-0.1154
24	0.4178	0.0224	0.3594	0.4227	0.2230
25	-0.0490	0.1581	0.1151	0.4189	0.4268
26	0.2561	-0.0109	0.0291	0.5837x	0.2449
27	-0.0204	-0.0149	0.6378x	-0.0190	0.2585
28	0.5196x	-0.0352	0.3111	0.0219	0.1244
29	0.0611	0.1304	0.2598	0.3839	0.4779
30	0.2538	0.4281x	-0.0867	-0.1921	0.1467
31	0.2632	0.2245	0.1196	-0.0742	0.5742x
32	0.1795	0.3047	0.2939	-0.0081	0.5499x
33	0.4936	0.0136	0.1467	0.2257	0.6294x
34	0.7434x	0.0591	0.2132	0.2648	0.1054
35	0.3164	0.1304	0.1297	0.6114x	0.3841
36	0.5946x	0.2380	-0.1502	0.0793	0.3401
37	0.2970	-0.2625	0.1467	0.1400	0.5203x
38	0.5372	0.0246	0.0744	0.6354x	0.0559
39	0.5439x	0.1979	0.3157	-0.2418	0.0020
40	-0.2469	0.5490x	0.1446	0.3754	-0.1277
41	0.3752	-0.0147	0.3988	0.3325	0.5863
% expl.Var.	16	10	8	10	10

Note. x indicating a defining sort

Appendix V

Q study Crib sheets

Factor 1 Crib Sheet**Items Ranked at +4**

14- I think that career guidance is fundamental for all students

Items Ranked Higher in Factor 1 Array than in Other Factor Arrays

9- It is not necessary to coordinate with government on the delivery of career guidance services 0

15- Career guidance national guidelines are very important for my job +1

18- I am confident about the positive impact of my career guidance interventions +3

19- Coordinating with employers and training providers is important in my job +3

21- The most frequent service that I provide to students is career information +1

22- Organizing sessions that focus on job skills and personal development is part of my job +2

30- More funds are needed for career guidance services +1

Items Ranked Lower in Factor 1 Array than in Other Factor Arrays

2- It is hard to assist students in investigating work opportunities -2

3- The majority of students do not know how to evaluate their options -1

4- Students do not believe in the benefits of career guidance services -1

7- The majority of the students who seek career guidance hesitate to take career related decisions -1

8- I think that students are not interested in career guidance services -3

10- I usually help students to make educational choices 0

14- I think that career guidance is fundamental for all students 0

27- I prefer to use an unstructured guidance approach -2

28- I do not have the necessary theoretical knowledge in career guidance -3

Items Ranked at -4

25- I think anyone can guide students in their career choices

Factor 2 Crib Sheet**Items Ranked at +4**

6- Access to labour trends and market statistics is limited

Items Ranked Higher in Factor 2 Array than in Other Factor Arrays

7- The majority of the students who seek career guidance hesitate to take career related decisions +1

8- I think that students are not interested in career guidance services 0

9- It is not necessary to coordinate with government on the delivery of career guidance services 0

10- I usually help students to make educational choices +3

11- I enjoy assisting students to understand themselves +3

12- It is beneficial for a student to have career portfolios +2

15- Career guidance national guidelines are very important for my job +1

20- I only assist students who seek career guidance advice +2

25- I think anyone can guide students in their career choices -3

Items Ranked Lower in Factor 2 Array than in Other Factor Arrays

4- Students do not believe in the benefits of career guidance services -1

16- Most of the students that I meet are aware of how to plan their career -3

19- Coordinating with employers and training providers is important in my job -1

21- The most frequent service that I provide to students is career information -1

22- Organizing sessions that focus on job skills and personal development is part of my job -2

23- I invite professionals from different sectors to talk about their profession -2

27- I prefer to use an unstructured guidance approach -2

29- I apply foreign career guidance standards -2

30- More funds are needed for career guidance services -1

Items Ranked at -4

26- I use free psychometrics tests found on the internet

Factor 3 Crib Sheet**Items Ranked at +4**

24- I trust that students benefit from Open Day in Universities

Items Ranked Higher in Factor 3 Array than in Other Factor Arrays

3- The majority of students do not know how to evaluate their options +3

4- Students do not believe in the benefits of career guidance services 0

5- I feel that students are not well informed about career guidance +2

7- The majority of the students who seek career guidance hesitate to take career related decisions +1

17- Students think that career guidance at the university/school is efficient +2

25- I think anyone can guide students in their career choices -3

28- I do not have the necessary theoretical knowledge in career guidance +2

30- More funds are needed for career guidance services +1

Items Ranked Lower in Factor 3 Array than in Other Factor Arrays

11- I enjoy assisting students to understand themselves +1

13- I think that I have the required qualifications to practise career guidance -1

- 16- Most of the students that I meet are aware of how to plan their career -3
- 18- I am confident about the positive impact of my career guidance interventions -1
- 21- The most frequent service that I provide to students is career information -1
- 27- I prefer to use an unstructured guidance approach -2

Items Ranked at -4

- 9- It is not necessary to coordinate with government on the delivery of career guidance services

Factor 4 Crib Sheet

Items Ranked at +4

- 13- I think that I have the required qualifications to practise career guidance

Items Ranked Higher in Factor 4 Array than in Other Factor Arrays

- 1- I do not use assessment tools in my work with students +1
- 2- It is hard to assist students in investigating work opportunities +2
- 4- Students do not believe in the benefits of career guidance services 0
- 10- I usually help students to make educational choices +3
- 18- I am confident about the positive impact of my career guidance interventions +3
- 22- Organizing sessions that focus on job skills and personal development is part of my job +2
- 29- I apply foreign career guidance standards +1
- 30- More funds are needed for career guidance services +1

Items Ranked Lower in Factor 4 Array than in Other Factor Arrays

- 6- Access to labour trends and market statistics is limited -1
- 7- The majority of the students who seek career guidance hesitate to take career related decisions -1
- 9- It is not necessary to coordinate with government on the delivery of career guidance services 0
- 14- I think that career guidance is fundamental for all students 0
- 15- Career guidance national guidelines are very important for my job -3
- 17- Students think that career guidance at the university/school is efficient -1
- 21- The most frequent service that I provide to students is career information -1
- 27- I prefer to use an unstructured guidance approach -2

Items Ranked at -4

- 25- I think anyone can guide students in their career choices

Factor 5 Crib Sheet

Items Ranked at +4

- 11- I enjoy assisting students to understand themselves

Items Ranked Higher in Factor 5 Array than in Other Factor Arrays

- 4- Students do not believe in the benefits of career guidance services 0
- 7- The majority of the students who seek career guidance hesitate to take career related decisions +1
- 16- Most of the students that I meet are aware of how to plan their career +1
- 17- Students think that career guidance at the university/school is efficient +2
- 21- The most frequent service that I provide to students is career information +1
- 22- Organizing sessions that focus on job skills and personal development is part of my job +2
- 23- I invite professionals from different sectors to talk about their profession +3
- 25- I think anyone can guide students in their career choices -3
- 26- I use free psychometrics tests found on the internet 0
- 27- I prefer to use an unstructured guidance approach 0

Items Ranked Lower in Factor 5 Array than in Other Factor Arrays

- 1- I do not use assessment tools in my work with students -3
- 3- The majority of students do not know how to evaluate their options -1
- 5- I feel that students are not well informed about career guidance -1
- 12- It is beneficial for a student to have career portfolios 0
- 24- I trust that students benefit from Open Day in Universities -2
- 29- I apply foreign career guidance standards -2
- 30- More funds are needed for career guidance services -1

Items Ranked at -4

- 20- I only assist students who seek career guidance advice

Appendix W

Frequency of career guidance services/events offered/organized by career guidance professionals

	Frequency	%
advising students on academic programmes and jobs	29	70.7
preparing students for university application and admission	25	61.0
planning and preparation for university admissions tests such as SAT, TAGE-MAGE, TOEFL, GMAT	23	56.1
informing students about financing that can be used to support advanced education and training	17	41.5
developing career portfolios, which include test and grades results, examples of student work, and resumes and cover letters to prospective employers	15	36.6
arranging job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations	21	51.2
sponsoring workshops, classes, focus groups, and special presentations that focus on job skills and personal development	14	34.1
providing specialized counseling and intervention services to provide students with individualized attention	23	56.1
inviting professionals from different sectors to talk about their profession	29	70.7
taking students to Open Day in Universities	23	56.1
Other (please specify)	6	14.6
Missing	3	7.31
Total	41	100.0

Note. CG Professionals 2013: Please indicate what career guidance services/events your school/university offers/organizes:(you may choose several options)

Appendix X

CG Professionals' perception of a career guidance practitioner's job

	Frequency	%
helps students to make their own decisions according to what is available on the employment market	13	31.7
assists students to understand themselves, including assessing their own achievements, abilities and interests	18	43.9
implements students plans for higher education purposes	12	29.3
administers tests and provides results	6	14.6
assists students in using computer software and careers information and other resources	8	19.5
all the above	18	43.9
other	1	2.4
Total	41	100.0

Note. CG Professionals 2013: Based on your knowledge and/or experience, what does a career guidance practitioner do? (you may choose several options)

Triangulation matrix

		Q Study					CG Professionals 2013					Quantitative Study			areer guidance opinion survey 2011	
No	Statement	1	2	3	4	5	Categorisation	A	%	D	%	T	A	D	CRM Item	Question
1	I do not use assessment tools in my work with students	-2	0	-2	1	-3	Services	10	24.39%	28	68.29%	38	3014	1001	13	
6	Access to labour trends and market statistics is limited	1	4	0	-1	0	Services	34	82.93%	4	9.76%	38	3310	705	10	
10	I usually help students to make educational choices	0	3	2	3	2	Services	35	85.37%	3	7.32%	38				
12	It is beneficial for a student to have career portfolios	1	2	1	1	0	Services	35	85.37%	3	7.32%	38				
19	Coordinating with employers and training providers is important in my job	3	-1	0	2	0	Services	34	82.93%	4	9.76%	38	3716	299	8	
21	The most frequent service that I provide to students is career information	1	-1	-1	-1	1	Services	16	39.02%	22	53.66%	38				
22	Organizing sessions that focus on job skills and personal development is part of my job	2	-2	0	2	2	Services	29	70.73%	9	21.95%	38				
23	I invite professionals from different sectors to talk about their profession	2	-2	1	0	3	Services	27	65.85%	11	26.83%	38	3716	299	8	
24	I trust that students benefit from Open Day in Universities	0	-1	4	0	-2	Services	28	68.29%	10	24.39%	38				
26	I use free psychometrics tests found on the internet	-2	-4	-2	-2	0	Services	24	58.54%	14	34.15%	38				
13	I think that I have the required qualifications to practise career guidance	2	1	-1	4	1	Profile	32	78.05%	6	14.63%	38				
28	I do not have the necessary theoretical knowledge in career guidance	-3	0	2	-1	-1	Profile	12	29.27%	26	63.41%	38				
20	I only assist students who seek career guidance advice	-1	2	-2	-3	-4	Procedure	13	31.71%	25	60.98%	38			3, 4, 6/1, 2, 7, 9	Who helped you choose your university major?
27	I prefer to use an unstructured guidance approach	-2	-2	-2	-2	0	Procedure	13	31.71%	25	60.98%	38				
29	I apply foreign career guidance standards	0	-2	0	1	-2	Procedure	22	53.66%	16	39.02%	38				
25	I think anyone can guide students in their career choices	-4	-3	-3	-4	-3	Perception CG	35	85.37%	3	7.32%	38				

2	It is hard to assist students in investigating work opportunities	-2	0	-1	2	-1	Perception CG	25	60.98%	13	31.71%	38	
11	I enjoy assisting students to understand themselves	2	3	1	2	4	Perception CG	36	87.80%	2	4.88%	38	
18	I am confident about the positive impact of my career guidance interventions	3	2	-1	3	2	Perception CG	35	85.37%	3	7.32%	38	
14	I think that career guidance is fundamental for all students	4	2	3	0	3	Perception CG	37	90.24%	1	2.44%	38	
5	I feel that students are not well informed about career guidance	0	1	2	0	-1	Perception Stu	31	75.61%	7	17.07%	38	
4	Students do not believe in the benefits of career guidance services	-1	-1	0	0	0	Perception Stu	18	43.90%	20	48.78%	38	
8	I think that students are not interested in career guidance services	-3	0	-1	-2	-2	Perception Stu	5	12.20%	33	80.49%	38	
17	Students think that career guidance at the university/school is efficient	0	0	2	-1	2	Perception Stu	24	58.54%	14	34.15%	38	
3	The majority of students do not know how to evaluate their options	-1	1	3	1	-1	Evaluation Stu	30	73.17%	8	19.51%	38	MCP: 20.81
7	The majority of the students who seek career guidance hesitate to take career related decisions	-1	1	1	-1	1	Evaluation Stu	23	56.10%	15	36.59%	38	MDM: 24.86
16	Most of the students that I meet are aware of how to plan their career	-1	-3	-3	-2	1	Evaluation Stu	6	14.63%	32	78.05%	38	MCP: 20.81
9	It is not necessary to coordinate with government on the delivery of career guidance services	0	0	-4	0	-2	Policy	13	31.71%	25	60.98%	38	
15	Career guidance national guidelines are very important for my job	1	1	0	-3	1	Policy	28	68.29%	10	24.39%	38	
30	More funds are needed for career guidance services	1	-1	1	1	-1	Policy	32	78.05%	6	14.63%	38	
31	Students need only information about which university to join for their superior studies							6	14.63%	32	78.05%	38	
32	I provide to students a detailed interpretation of their results on any psychometric test							19	46.34%	19	46.34%	38	
33	I need to be trained on certain career guidance skills							31	75.61%	7	17.07%	38	

In your opinion what is career guidance

Based in your knowledge and/or experience, what does a Career Practitioner do? Based in your knowledge and/or experience, what does a Career Practitioner do? Did/are you get/getting any value from the career guidance services during your university studies?

31, 32 During your university studies, did you change major (s)?

34	As part of my job, I feel it is important to arrange job shadowing, work placements, and community-based learning programmes to allow students to directly experience workplace situations	31	75.61%	7	17.07%	38	3741	274	5
35	Are you interested to have, in Lebanon, a platform/association that provides academic and scientific data, sets quality standards and guidelines, gives evidence based knowledge and acts as a body of reference for practitioners?	31	75.61%	1	2.44%	32			

Appendix Z

CG Professionals' suggestions on how to improve career guidance in Lebanon

- have more awareness of the importance of career guidance in schools/universities - the benefits of doing a job we like - economical benefits (personal and social)
 -should be implanted as a part of the academic program with specific hours of contact - should be more professional and a part of a bigger community where we can share opinions and get advice as practitioner -unifying the system in all schools -practitioners should always be updated and subject to training sessions

1- Provide a course at universities

A reference / guideline that insures the quality and reliability to protect the individuals rights. Need to organize the status / profile of the career guidance professionals (not anyone should be able to use that title without recognition of his/her skills and quality of work delivered).

There's an ethical code to consider

all what came in 3 above

Avant tout une association, une référence, un cadre.....

Create a committee to plan & organize activities, national career guidance...

Funds Funds Funds to create 1 center and it's branches.

Increase awareness, especially in schools, and provide resources. Moreover, including more career guidance courses in universities in preparation of career counselors.

informing personnel

Laws and regulations Organisation.

More awareness more information more studies about market and job needs

Not sure

people in charge of career guidance should study Guidance and counseling

Situation heterogene entre les etablissements: creer des postes dans le public Mettre à la disposition des professionnels, des eleves et de leurs familles des etudes des besoins du marché et des statistiques d'emploi/ chômage, revenus etc.

To have funds available for that, and real professionals in the field

training, books, workshops....

what ur doing is a great start, keep on the good work

Note. CG Professionals 2013: Please list your suggestions to improve career guidance in Lebanon

Appendix AA

List of career guidance weaknesses in Lebanon suggested by CG Professionals

-Absence of standards, rules, and regulations - Misconception of the Career Guidance practitioners' role and duties - Lack of certified or well-trained career guidance practitioners; it depends on each person's level of knowledge and training, which is leading to inconsistency in the services provided by different educational institutions. - Absence of needed funds for career guidance staff development - Lack of awareness on the importance of the Career Guidance and its essential role in the career planning and professional success. -lack of information -absence of studies around the market needs - overall lack of interest in career guidance in most schools who still tend to orient students based on their grades - specially scientific grades-without taking into consideration their needs or skills. Absence d'etudes et de statistiques sur le marché du travail Absence de service d'orientation dans les établissements scolaires publics

Absence of reliable statistics, data and Resources.

I am not truly aware of the weaknesses. I can only speak of mine. I am an extremely efficient counselor. However, I do not have a degree in counseling. The administration asked me to join the office because they knew that I have a good rapport with my students. I took the job 4 years ago and we are doing very well. However, to me it is important to have some formal training. I now have experience but this remains a weakness in my estimation. Also from working with students from other schools, I find that some schools have no knowledge whatsoever about how to apply to the US and to the UK, how to write a meaningful recommendation letter, not just a copy paste sort of one where they only change the name of the students, for example I, hereby certify etc and so on.

I have very little experience in this field. This is my fourth year as guidance counselor and I know very little about other schools

it is not organised, we need to meet regularly to exchange the experience, expertise and techniques

lack of national studies and research and data

No career guidance Some universities become materiels

no specialized career counselors. no platform for communication amongst people offering career guidance service. No state agencies or statistics /job opportunities

No statistics No planing No guidelines No reliability nor reference to what is done

No unified plan and activities.

not taken very seriously need some funds to improve the system is not a specific speciality in university is not always updated , it counts a lot on the practioner will to improve himself

no reference to go back to

Pas de carte de route.

people on the job lack the expertise

People think only liberal professions Have value No funds for a big center of career guidance where all students can be helped regardless of their school.

scientific programmes, and material to use in career guidance, and training for the career guidance practioners

sponsoring taking students to Open Day

the mentality of parents that have a negative influence on students' decision...

The problem is the mentality of parents....Almost all of them ask for a child with scientific skill to became doctor or engeneer

there is no clear cut job description and a specialized job in career guidance in schools and universities in Lebanon.

to have access to market statistics and the needs of the market no platform , no guidelines and standars in career guidance wich is specific to lebanon, to its culture and needs

Vague

We still do not have the awareness for the importance of, and need of career guidance, consequently we lack the necessary resources.

Note. CG Professionals 2013: Please list the weaknesses we have in career guidance in Lebanon

Appendix AB

Ethics Approval Letter

EXTERNAL AND STRATEGIC DEVELOPMENT SERVICES

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Quality Assurance and Enhancement

18th July 2013

Dear Carla

Project Title:	Career readiness of university students in Lebanon
Researcher(s):	Sakina Loutfallah
Principal Investigator:	Carla Gibbes

I am writing to confirm that the application for the aforementioned proposed research study considered at the meeting of University Research Ethics Committee (UREC) on **Wednesday 12th June 2013** has received ethical approval as all conditions of approval have been met.

Should any significant adverse events or considerable changes occur in connection with this research project that may consequently alter relevant ethical considerations, this must be reported immediately to UREC. Subsequent to such changes an Ethical Amendment Form should be completed and submitted to UREC.

Approved Research Site

I am pleased to confirm that the approval of the proposed research applies to the following research site.

Research Site	Principal Investigator / Local Collaborator
Lebanon	Sakina Loutfallah

Approved Documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Participant Consent Form	1.0	12/06/2013
Risk Assessment Form	2.0	02/07/2013
Letter from Ministry of Education & Higher Education, Lebanon	1.0	12/04/2013
Request to Travel Form	2.0	17/07/2013
Career Readiness Measure	v.0	12/06/2013

Approval is given on the understanding that the [UEL Code of Good Practice in Research](#) is adhered to.

EXTERNAL AND STRATEGIC DEVELOPMENT SERVICES

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Quality Assurance and Enhancement



With the Committee's best wishes for the success of this project.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'J Wood'.

Joanne Wood
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Quality Assurance and Enhancement
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