

# Life Design and Career Counseling Innovative Outcomes

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This article presents a case study that aims to describe the effectiveness of a life-design counseling approach using the Career Construction Interview (Savickas, 2010) with a final-year female engineering student. A qualitative tool, the Career Counseling Innovative Outcomes (CCIO), was administered before and after the intervention to describe the client's change when using the life-design model. The results of the analysis using the CCIO coding system indicate that the life-design counseling allowed the participant to have a greater awareness of herself to autonomously develop her own career and life path. Further research on the CCIO may provide additional support for its effectiveness.

**Keywords:** career construction, life construction, innovative moments, life-design counseling effectiveness, Career Counseling Innovative Outcomes coding system

In life-design counseling characterized by a narrative perspective, individuals construct their own selves through narration (Savickas et al., 2009). They are considered to be responsible for the direction that both their personal and professional lives will take (Guichard, 2013). The purpose of the life-design intervention is to help people meet the career challenges of the global economy and digital age by increasing the metacompetencies of adaptability and identity (Savickas, 2013). Rather than using objective scores to match people to jobs, the narrative career approach, based on comprehensive career theories such as career construction theory (Savickas, 2001, 2005, 2011) and life construction theory (Guichard, 2013), focuses on the meaning-making of projective stories (Savickas, 2001, 2005).

Although it is growing in popularity and use, the effectiveness of life-design interventions has been studied infrequently. One reason for this relative absence of research is the lack of narrative research methods that fit the constructionist base of the life-design paradigm. The majority of studies that examine the effectiveness of career interventions use the positivist paradigm and objective measures (Brown et al., 2003; Heppner & Heppner, 2003; Oliver & Spokane, 1988; Whiston, Brecheisen, & Stephens, 2003; Whiston, Sexton, & Lasoff, 1998). In general, meta-analysis of research on the outcomes of career counseling interventions shows the effectiveness of such interventions, although the effect size varies in different studies (Brown & Ryan Krane, 2000).

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The emergence of the narrative perspective in career counseling (Hartung, 2010, 2012, 2013; Maree, 2007; McMahon & Patton, 2002; Rehfuss, 2009; Savickas, 1995, 1997) has revealed the need both to develop qualitative assessment and to verify the effectiveness of life-design counseling interventions (Di Fabio & Maree, 2012) with new modalities that are innovative and congruent with the perspective (Rehfuss, 2009). Traditional quantitative instruments are limited in terms of their capacity to measure and understand the nature of qualitative changes in individuals' self-narratives (Rehfuss & Di Fabio, 2012).

Given the vast array of changes taking place currently in the world of work, the nature of assessing career interventions will need to change accordingly. The process of self-narrative regarding life and occupation as a tool to help clients create meaningful change in their lives by developing an expanded, fuller, or clearer conceptualization of the self (Savickas, 2010) is emerging as the object of intervention strategies based on the life-design model (Rehfuss & Di Fabio, 2012; Savickas et al., 2009). However, a key challenge in developing outcome tools for life-design counseling is that the narrative approach to career intervention is intrinsically qualitative. For this reason, we have to carefully reflect on this aspect to realize that we do not have many qualitative tools focused on assessing narrative change (Blustein, Kenna, Murphy, Devoy, & DeWine, 2005; Blustein, Kozan, & Connors-Kellgren, 2013; Rehfuss, 2009; Whiston & Rahardja, 2005). Furthermore, we have to cope with increased demands for accountability and for assessing the effectiveness of narrative career counseling intervention in terms of life design; however, we need to develop tools that are congruent with the new narrative perspective on intervention. These new instruments must be able to identify moments and markers of narrative change. The present study addresses this need by producing a new qualitative tool for evaluation of the effectiveness of life-design interventions.

## **Qualitative Evaluation Initiatives**

The only available narrative method that emerged in the literature for assessing life-design counseling outcomes is the Future Career Autobiography (FCA; Rehfuss, 2009). The FCA consists of a blank sheet of paper with these specific instructions: "Please use this page to write a brief paragraph about where you hope to be in life and what you hope to be doing occupationally five years after graduating from college" (Rehfuss, 2009). The FCA is administered before and after life-design interventions and enables the detection of personal and career motives, values, and direction in a narrative form. The narratives produced in the FCAs before and after the intervention are compared, and the presence of change is analyzed on the basis of the eight degrees of change themes identified by Rehfuss (2009).

Although the FCA represents a positive step in evaluating the effectiveness of life-design counseling, its relatively vague directions and lack of specificity, as reflected in its capacity to discern only broad change themes, may hinder a full exploration of the impact of a counseling experience. As such, a more refined tool is needed to fully capture the depth and nuance of life-design counseling. The psychotherapy literature offers an interesting qualitative tool

in the form of the Innovative Moments Coding System (IMCS; Gonçalves, Ribeiro, Mendes, Matos, & Santos, 2011), which may be useful in this regard. Innovative moments are “novelties that emerge in contrast to a client’s problematic self-narrative as expressed in therapy” (Gonçalves et al., 2011, p. 497). Innovative moments appear every time there is a new way to feel, think, or act in relation to a problematic pattern that is different from what would have emerged had the person continued to function in the same way (Gonçalves et al., 2011). Innovative moments are detected through the IMCS (Gonçalves et al., 2011), which permits the evolution of a psychotherapeutic intervention to be monitored after each session by analyzing transcripts of audio or video recordings to identify five different types of narrative change: action, reflection, protest, reconceptualization, and performing. The IMCS is used to analyze the transcript of the therapy sessions, thereby permitting examination of the change process throughout the sessions (Cardoso, Silva, Gonçalves, & Duarte, 2014).

## **Purpose of the Study**

Taking inspiration from the IMCS, I developed the Career Counseling Innovative Outcomes (CCIO) as a new narrative tool for assessing counseling outcomes and, specifically, life-design counseling effectiveness (Di Fabio, 2014). The CCIO is intended to respond to the current need for qualitative instruments to determine the effectiveness of the new life-design counseling interventions. Herein, I present a case study to demonstrate the CCIO and its coding system as a method for assessing client change after a life-design intervention using the Career Construction Interview (CCI; Savickas, 2010). Two questions guided the case study: (a) Can the CCIO be used to assess for client change after a life-design intervention? and (b) Can the CCIO be used to describe the sort of changes that may be facilitated by a life-design intervention?

## **Method**

### **Participant and Context**

The participant in this study, Lucrezia (a pseudonym), was a final-year engineering student at a large university in central Italy who requested career counseling. Lucrezia was specializing in biomedical engineering, and she requested career counseling as she approached the moment of transition from university to the world of work. For the intervention, I chose a life-design approach using the CCI to facilitate her exploration of her professional and life path. Lucrezia is 25 years old and comes from a small town in southern Italy, where her family still lives. She has been living in a medium-sized city in central Italy where her university is located since the beginning of her academic studies. Like other students from southern Italy, where the current economic crisis has accentuated the already limited chances of finding a skilled job, Lucrezia chose to study at this particular university and hoped to find work in line with her training and her interests, possibly remaining in her current location or moving to another big city in central or northern Italy.

## Assessment

The CCIO (Di Fabio, 2014) aims to assess the outcomes of life-design counseling interventions. This instrument was conceptualized after a comprehensive perusal of the IMCS used in psychotherapy (Gonçalves et al., 2011) and its application in life-design counseling (Cardoso et al., 2014). Whereas the IMCS (Cardoso et al., 2014; Gonçalves et al., 2011) is used to monitor the process of change during psychotherapeutic intervention, the CCIO is instead an instrument developed to elicit and analyze specific narratives produced before and after life-design counseling.

The CCIO comprises seven questions developed on the basis of the narrative paradigm (Savickas, 2011). These questions, administered before and after the life-design counseling intervention, provide access to the client's narrative expression at two points in time and allow comparison of how the client organizes these narrations before and after the narrative intervention. The intervention itself, based on the CCI (Savickas, 2010), seeks to recognize dissonances in clients' occupational plots and reunite them with the main theme of their life stories. The life-design intervention involves gaining equilibrium between occupational plot and career theme through a new equilibrium balanced on narrative truth, which opens new pathways that previously were neither perceived nor possible. The new equilibrium enables clients to carry forward their life project more consciously and with more intentionality in shaping the next scenario. The seven CCIO questions are located within the narrative paradigm (Savickas, 2011). They comply with the principle of the emergence of narratives through stimuli and thereby begin the search to understand one's own life. Each question enables the emergence of a specific narrative anchored to specific facets of the narrative paradigm (Savickas, 2011). Accordingly, the CCIO contains seven questions, each modeled after a specific CCI question.

*Question 1: In which ways can this intervention be (was this intervention) useful to you?* This question is anchored in the first question of the CCI because it aims to reveal the client's presenting problem and basis for requesting the intervention. It also reveals what the client expects to get from the intervention. The first question elicits the client's discourse on the initial situation and the complicating action that leads to the entanglement, or the beginning of the conflict that is the basis of the narrative tension. It provides access to the client's representation of the adversities prompting the client to seek the intervention, resulting from the tension they generated.

*Question 2: What are your main useful resources?* This question elicits a narrative about how clients represent the personal and contextual strengths that enable their success in navigating the difficult passage of life being faced, and about the resources that clients perceive can advance their identities and help them write a new chapter in their life story (Savickas, 2011). The question brings out the client's discourse on the resources perceived to venture toward a transforming action of change in the initial situation and resolution of the narrative tension.

*Question 3: What are the main obstacles you encounter?* This question elicits the client's narrative about his or her perceptions of the obstacles to be overcome for his or her success in navigating the difficult passage of life being faced. The question evokes a narrative about the obstacles that hinder the client's identity development (Savickas, 2011).

*Question 4: Who do you think can be useful to you?* This question is oriented toward bringing out the client's narrative about his or her perception in specific reference to the people who can provide support to deal with the transition.

*Question 5: What do you think can be useful to you?* This question is oriented toward bringing out the client's narrative about his or her perception in specific reference to the means that can be useful in dealing with the transition.

*Question 6: What are the main challenges you face?* This question is oriented toward evoking the client's narratives about the challenges he or she perceives to be progressing along the line of movement by explaining the vision that the client has before the intervention. The main challenges are related to the principle that offers the client the capacity to develop new strategies for life planning, learning, and personal growth; these challenges provide the inspiration to help the client become who he or she wants to become and to write a new chapter in his or her life story (Savickas, 2011). In contrast to Question 3, which is centered on obstacles with a negative connotation, Question 6 focuses on challenges with a positive connotation. If obstacles are problematic matters, on the contrary, challenges are framed as opportunities.

*Question 7: What are the main objectives you are hoping to achieve?* This question is oriented toward bringing out narratives about future goals, from where the individual is now to where the individual wants to end up (Savickas, 2011). The narrative elicited allows the counselor access to how the client perceived these goals before the intervention. Clients need goals to become something more than they are now (Savickas, 2011); therefore, it is a question that refers to the character arc, as growth in the transformation of needs into goals. This question generates information from the client about what is important to write the next chapter of his or her life story. The narrative data gleaned from this question reveal what the client thinks he or she needs to become who he or she wants to become. Question 7 is focused on explaining something that is also linked with what already emerged through Question 1 through a specific narrative. Question 7 brings out the client's discourse on the object of perceived value, from which the client feels disjointed, and where he or she wants to direct his or her energy to resolve the narrative tension.

The narratives elicited by these seven questions are coded using a system of five categories designed by Gonçalves et al. (2011). Action refers to actions or particular behaviors related to solving problems; Reflection is composed of two different types (Type I Reflection refers to getting away from the problem[s], and Type II Reflection is focused on change); Protest is divided into two different types (Type I Protest is a critical analysis of the problems, and Type II Protest is related to the development of a new perspective on the problems); Reconceptualization implies a metacognitive narrative of the process; and Performing Change implies access to different scopes and project for the individual. Gonçalves et al. apply the coding categories to the verbal responses a client makes during the counseling process. In the present application, I used the five categories to assess the outcomes of counseling in terms of innovative moments, not to monitor the process of change during the career counseling intervention.

## Procedure

The CCIO was administered before and after the life-design counseling intervention by a psychologist trained in the administration of qualitative instruments. Lucrezia's initial and subsequent responses to the seven narrative written questions were also paired for narrative comparison by three independently trained experts in career counseling. Five steps were carried out in the process of coding innovative moments: (a) training of the raters; (b) consensual definition of the problems by the three raters; (c) identification of innovative moments, defining their onset and offset; (d) categorization of previously identified innovative moments in terms of type; and (e) categorization of previously identified innovative moments in terms of emergence (Gonçalves et al., 2011). An interrater reliability analysis using the kappa statistic was performed to determine consistency among the raters.

Lucrezia participated in a life-design counseling intervention divided into five 1-day sessions (50 minutes per session), based on the CCI (Savickas, 2010). Lucrezia was given written exercises on the interview's key areas: role models, magazines/entertainment, favorite books, free time, favorite mottos, school subjects, and earliest memories. She performed individual work on the self both through exercises in written form and by interacting with me. The aim was to help Lucrezia elaborate on the main concerns in her life and identify the main themes in her narratives to express the guiding theme as her life project. I took steps to ensure Lucrezia's well-being throughout the study. I obtained her informed consent and maintained full confidentiality. I gave her feedback during the life-design counseling session and released the research findings in an acceptable and responsible manner.

## Criteria for Quality Assurance

In relation to criteria for qualitative assurance, it is fundamental to guarantee the trustworthiness of the results using various strategies during the data collection and analysis: credibility, confirmability, transferability, and dependability (Maree, 2012). Credibility of data refers to "factors such as the significance of results and their credibility for participants and readers" (Maree, 2012, p. 141). I ensured credibility by external verification of the results, which enables the researcher to assess the credibility of the results; I achieved this by submitting the documentation to researchers who did not participate in the research and asking them to assess the way in which the conceptual analysis was carried out. Confirmability refers to "the objectivity of the data and the absence of research errors. Results can be regarded as confirmable when they are derived from the participants and the research conditions rather than from the (subjective) opinion of the researcher" (Maree, 2012, p. 142). I achieved confirmability from external researchers in guidance and career counseling who did not participate in the study who assessed whether the methods and general procedures of the study were described clearly and in sufficient detail to allow for data verification. Furthermore, I fully documented the data obtained, the methods used, and the decisions made during the intervention.

Transferability refers to "the extent to which the results can be 'exported' and generalised to other contexts" (Maree, 2012, p. 142). I

ensured transferability by providing an accurate description of Lucrezia's personal situation and the techniques used to elicit data. I also provided information on the context of the case to enable readers to judge the applicability of the findings to other settings. It is important to underline that the research was based on comprehensive descriptions of the case study without any attempts at generalization. Dependability refers to "the stability and consistency of the research process and methods over time and influences the degree of control in a study" (Maree, 2012, p. 141). I ensured dependability through the independent analysis of Lucrezia's CCIO by three experts to enhance the accuracy of the deductive process and to ensure that the identified themes accurately represented the data.

## Results

Following are Lucrezia's responses to the seven questions of the CCIO before and after the life-design counseling intervention and the results of the analysis through the CCIO coding system based on the five types of innovative moments (i.e., Action, Reflection, Protest, Reconceptualization, and Performing Change; Gonçalves et al., 2011).

Lucrezia's initial answer to the first CCIO question was as follows:

This intervention can be useful to me to better understand what I want to do after I graduate in biomedical engineering. My main doubt is whether to go back to my town in southern Italy where my family lives and maybe try to find a job somewhere nearby, even though I don't think there are many possibilities in my field, or stay here and look for a job here or maybe in some cities of northern or central Italy.

After the intervention, she stated:

This intervention was useful because it permitted me to resolve my indecision and made me think about how I really want to build my future. I understood that not returning to the South doesn't necessarily mean disappointing my parents, that I will be determined to explain to them my reasons, and that finding a job suited to my qualifications doesn't mean that I'm being selfish [Type I Reflection innovative moment]. Before I felt obliged to return to live in the South for my family, and this is why I was undecided, because in reality that isn't what I want to do. Now I understand that, for me, at this point in my life, it is important to invest in work and look for a job in the field of biomedical engineering, which I have studied and worked so hard for. I will be able to explain to my family how much I love them, but I won't let this influence my work plan and my future life plan. Having a clear idea about what I really want now puts me much more at peace [Reconceptualization innovative moment].

The verbatim responses of the participant have been lightly edited to preserve their authenticity.

Lucrezia responded to the second CCIO question by stating, "I can't understand what my main resources are." Her subsequent answer to the second CCIO question was as follows:

The feeling of not having many resources made me worried, and I had many doubts about my possibilities of really becoming a biomedical engineer. During the intervention, I decided to question my friends about what resources they thought I had for my project and my future work [Action innovative moment]. I immediately

felt better because I realized that I was creating a false problem for myself and that I had resources if I was willing to recognize them. This made me feel much better [Type II Reflection innovative moment]. All of the intervention then permitted me to understand that my main resources just lie in myself, my belief, and my desire to become a biomedical engineer; I can't forget the tenacity that has brought me this far. I'm capable of putting myself at stake completely and facing my fears when they appear, and this applies to the challenges related to my profession in the same way as the other challenges in my life [Performing Change innovative moment].

Lucrezia initially responded to the third CCIO question by noting the following: "The main obstacle that I find, in addition to my family, is my boyfriend, because he would like me to return to my town once I have finished university." Her subsequent answer to the third CCIO question after the intervention was as follows:

I have always worried about making others happy, and I never really worried about understanding what would make me happy. Why do I have to carry on like this with regard to the choice of my work [Protest Type I innovative moment]? Now that I really understand the importance that working as a biomedical engineer has for me and the possibilities that my research thesis opens up at my university, I don't intend to give up. I know well that in my town there would be no opportunity to do a job that I find so interesting. It's time to take care of my priorities and my satisfaction too [Protest Type II innovative moment].

Lucrezia responded to the fourth CCIO question prior to the intervention by stating the following: "I don't know who could really be helpful to me. Maybe someone can tell me whether it's a good idea or not to stay in Florence to find a job as a biomedical engineer after graduation." Her subsequent answer to the fourth CCIO question was as follows:

I think it could be useful to me if my parents supported me in staying in Florence to accomplish my plan to become a biomedical engineer. That's why I decided to talk to them to try to make them understand how fulfilling my project is important for me [Action innovative moment].

Lucrezia's initial answer to the fifth CCIO question was as follows: "I think that it can be really useful to me to understand if it is important to me to become a biomedical engineer." Her subsequent answer to the fifth CCIO question was as follows:

First of all, it is really useful to me to start looking for internship opportunities in some companies that I have seen are offering internships for graduates in Tuscany [Action innovative moment]. Then my conviction is useful to me, the fact that I have understood that even when I was young I was interested in the tools that are used in medicine. For example, they gave me a play doctor's kit and I was interested in the stethoscope, in how it worked, and the little chemist's microscope; I immediately disassembled it to try to understand what was inside [Type I Reflection innovative moment]. This intervention made me feel much better, and now I feel qualified to continue on this path and gradually solve the problems that I might encounter along the way. I'm not the first woman to go along a complicated career path that doesn't fit with gender expectations [Type I Reflection innovative moment].

Lucrezia's initial answer to the sixth CCIO question consisted of the following:

The main challenge that I feel I'm facing at the moment is to find a job as soon as I graduate in my field of study, that of biomedical engineering, because I'm afraid that I'll be forced to give up and settle for second best because of the economic crisis or because in the end I will choose to return to my town.

Her subsequent answer to the sixth CCIO question was as follows:

My main challenge is just to work as a biomedical engineer, and now I'm convinced that I have to try to do everything possible to fulfill my career plans, which have always been my dream too. This is why I am finding out about the various companies in Northern Italy, and I'm trying to contact people who work in these fields [Action innovative moment]. After university, I would also like to attend a postgraduate course, maybe abroad, to boost my skills and become more competitive in the labor market and have more opportunities to do the work I like. For the moment, I have decided to do an intensive English course to continue to improve my level of foreign languages and be more prepared [Performing Change innovative moment].

Lucrezia initially responded to the seventh CCIO question as follows: "Currently, the main objective that I hope to achieve is to be able to work as a biomedical engineer, but I'm undecided." Her subsequent answer to the seventh CCIO question was as follows:

My main goal is to find a job as a biomedical engineer, because this scientific field has fascinated me since childhood. I want to build and refine medical devices and equipment that can be helpful to others and contribute with my work to progress and to a better quality of life for people, by working in the health field. That's what I really want to do, and mostly I want to first of all fulfill myself professionally. Then, I have understood that I want to continue to invest in my training in the near future to be truly competitive in the labor market and be able to choose a job that responds to my wishes. I'm a woman and therefore I have to be very skilled to be able to get this. Being clear that this is my priority makes me serene and ready for some hard work and commitment. But, mostly, it makes me peaceful and determined. I feel how much I have changed and that now I'm ready [Reconceptualization innovative moment]. At the same time, I have realized that if I also want to fulfill myself on a personal in addition to a professional level, this implies that I need to choose a partner who understands me, who is able to recognize my professional needs, and permits me to express them [Type II Reflection innovative moment]. Before the intervention, I was even undecided whether to return to my town of origin after graduation. I was confused. I felt the pressure of my parents and the extremely strong pressure from my boyfriend and their desire to have me near; they wanted me to come back. Now everything is clear; everything is easier because it is in focus. And this makes me feel a lot of energy to commit myself on various fronts. I can't waste even a drop of energy because I need it to build my future career and my life, because it will be a life in which I can recognize myself [Reconceptualization innovative moment].

## Discussion

The results of this case study indicate that the CCIO and its coding system provide a promising tool for assessing growth in the life-design model of narrative career counseling. In this case, the client showed an evolution across a number of important dimensions of her work life, as reflected in a comparison of the narrative before and after the intervention. From

the analysis, it emerged that Lucrezia presented a change in narratives in terms of action innovative moments, because she expressed new coping behavior to deal with existent obstacles, active exploration of a solution, and searching for information about problems (Gonçalves et al., 2011). As reflected by the results, Lucrezia generated a number of new action steps, which seemed to reflect an authentic implementation of her current narrative. For example, she discussed asking her friends about what they see as resources for the development of her project and for her future work, talking to her parents to make them understand the importance of her plans so that they can support her, looking for internship opportunities at some companies in central Italy, gathering information about various companies in northern Italy, and trying to contact people who work in these areas to get some direct and more detailed information.

Lucrezia also showed changes in narratives in terms of both Type I and Type II Reflections. The intervention led to a progression in her reflection, which went from Type I, creating distance from the problem, to Type II, centered on change (Gonçalves et al., 2011). Regarding the Type I Reflection, Lucrezia showed that the intervention was useful particularly because it permitted her to resolve her indecision. She reflected on how she really wanted to build her future, realizing that staying in the city where she is studying will not necessarily mean upsetting her parents, locating in her childhood the roots of her conviction to pursue her professional project, and showing adaptive thoughts when she claims not to be the first woman to engage in a complicated career that does not fit into gender expectations. Type I Reflection was expressed in Lucrezia's narratives, for example, with self-adaptive instructions and thoughts to combat the problem she was facing (Gonçalves et al., 2011). The intervention also led Lucrezia to a Type II Reflection, emphasizing the process of change and the strategies used to overcome the problem, also accompanied by references to self-worth and feelings of well-being as important consequences of change (Gonçalves et al., 2011). After the intervention, Lucrezia reported feeling much better because she felt that she has the resources necessary to deal with the problem if she is willing to recognize them: those resources are in herself. She also gained a new awareness of the importance of having a partner who understands her professional needs and enables her to express them and express herself.

The analysis of the narratives also highlighted the presence of Protest innovative moments as aspects of criticism that imply a comparison of what Lucrezia really wants in relation to what others would like her to do (Gonçalves et al., 2011). In relation to the Protest innovative moment, both Type I and Type II Protests emerge. With regard to the Type I Protest innovative moment relating to criticizing the problem, Lucrezia affirms that she has always sought to make others happy and has never been concerned with understanding what would make her happy, and that now she does not want to continue in this way about her choice of work. In relation to the Type II Protest innovative moment, Lucrezia has taken a new position, saying she does not intend to give up work as a biomedical engineer now that she understands how important this is for her.

The narrative analysis also highlights a Reconceptualization innovative moment regarding the shift between two positions (past and present) and the process underlying this transformation (Gonçalves et al., 2011). Lucrezia goes

from a past position, in which she felt conflicted—almost obliged to return to her town of origin so she does not displease her parents, and because it was what her boyfriend wanted—to a new position, after the intervention, in which she understands that it is not possible to return to her town of origin because there she would not find the job of her desires. She affirms the importance for herself to invest in work and look for a job in the field of biomedical engineering, a field in which she has studied and to which she has committed so much, and this makes her feel calm and ready for the hard work and commitment that an unconventional path for women requires.

Finally, analysis of the narratives revealed the presence of the Performing Change innovative moment in terms of investment in new projects as a result of the change process (Gonçalves et al., 2011). Having reached the awareness that she really wants to become a biomedical engineer, Lucrezia realizes that she cannot forget the importance of her life to be completely involved in realizing this project. The analysis also presents generalized good outcomes for the future, because she is aware that she can face her fears when they occur, and this awareness is a new resource to face the challenges of both her current and future professional life. Lucrezia also outlines new projects, such as attending a postgraduate course after university, possibly abroad, to enhance her skills and become more competitive in the labor market. She has decided to immediately invest in the project by improving the level of her English and reinforcing these skills so that she can be more prepared.

Overall, the analysis that compared Lucrezia's pre- and post-life-design counseling intervention narratives showed the presence of narrative change using the CCIO coding system, thus underlining the effectiveness of the life-design intervention. Through the dialogue and narrative process (Guichard, 2010, 2013; Savickas, 2005, 2011, 2013), Lucrezia built a professional and life project that is really satisfying for herself, while discovering her deepest values and life purposes in terms of Savickas's (2011) personal success formula. The results of the case study underline the client's changes after the life-design counseling intervention using the CCI (Savickas, 2010) to facilitate this student's reflection on the construction of her own career and life path.

## **Limitations and Future Research**

Although steps were taken to enhance the trustworthiness and credibility of the study, the subjective interpretation of the researchers could be regarded as a limitation. A follow-up session carried out 6 weeks after the end of intervention revealed that there was some implementation of the new intentions because Lucrezia had spoken to her parents, who understood that it is important for her to try to become a biomedical engineer. Lucrezia also identified some enterprises in central Italy where she sent her curriculum vitae to do an internship as soon as she graduates. She also began the intensive English course. It would be important to effect a follow-up assessment 6 to 12 months after the intervention to confirm the stability of the results obtained.

## **Conclusion**

Analysis of this case study revealed notable client change after a life-design counseling through the use of the CCIO. This case study

presents a tool that has the potential to provide important information for counselors seeking to assess the outcomes of life-design counseling. According to this qualitative analysis, this life-design counseling intervention based on the CCI (Savickas, 2010) appears to be a useful intervention modality. This life-design intervention allows individuals to elaborate on the problem, by developing their ability to reflect on themselves, to implement effective actions that are placed in a significant framework for them (Savickas, 2011). The intervention enables individuals to ask fundamental questions in relation to the problem they have, to identify past and present experiences that are central to their lives, and to build future projects (Guichard, 2010, 2013; Savickas, 2005, 2011, 2013).

This case study has numerous practical implications for career counselors. Career practitioners can use the CCIO before and after a life-design counseling intervention to assess for client change and identify different innovative moments, which can inform clients' progress. The CCIO and the coding system provide evidence of growth when using the life-design intervention in narrative career counseling. For this reason, the CCIO and the coding system are also useful for improving practice. For example, practitioners can be attentive to the different level and aspects of change in their clients during their intervention by becoming more aware of the different innovative moments that are embedded in the CCIO coding system. As such, practitioners can more readily recognize the movements of change of their clients during the intervention and help their clients internalize these changes and progressively consolidate them. Using this tool can help life-design counselors be aware of the complexity of the narrative changes and the specific aspects of the change. Using this tool over time will improve the quality of life-design practice with respect to the actual practice of life-design counselors. Although the results of the present case study illustrated how the CCIO can be used to describe the sort of changes that can be facilitated by a life-design intervention, further research will be necessary. Future studies could use the CCIO to assess the outcomes of different life-design interventions to examine, in depth, the specificity of changes produced by different types of interventions to promote the quality of life-design practice. In addition, the CCIO can help to identify the core changes factors inherent in life-design counseling, thereby enhancing our understanding of the complex ways that this important new intervention tool facilitates growth and development.

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