

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

**"Looking To the Future and the University in an Inclusive and Sustainable Way": A
Career Intervention for High School Students**

Sara Santilli , Ilaria DI Maggio , Maria Cristina Ginevra , Laura Nota , Salvatore Soresi

Department of Philosophy, Sociology, Education, and Applied Psychology, University of

Padova, Italy

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

Abstract

Career guidance needs new perspectives considering challenges that characterized our future, and it can not exist without solidarity, inclusion and attention to the environmental challenges. It also should be able to positively influence stakeholders to invest in the values of the 2030 Agenda recently proposed by the United Nations and their encouragement to think about some emergencies that the new generations will have to face in the future. Based on these premises, we designed and validated a sustainable career guidance intervention for high school students. Participants (N = 75) were assigned to an experimental or a control group. All participants responded pre- and post-intervention to measure career adaptability, training and future investment, and wishes about the future. The students from the sustainable career intervention group increased in post-intervention scores on control, curiosity, confidence, and training and future investment. They also indicated future wishes that take into more account attention to relationships and social challenges.

Keywords: career intervention, inclusion, sustainability

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

"Looking to the future and to the university in an inclusive and sustainable way": A career Intervention for high school students

The idea of the present and the near future involves high levelsof ambiguity, change, and complexity. The principal threats and challenges with which young people, in particular, will have to confront are different: socio-economic policies and inequalities, super-diversity society, the role of technologies, and the life on our planet (Hooley, Sultana, & Thomsen, 2018; Authors, 2019). As regards socio-economic policies, some authors (e.g., Authors, 2018a, Hooley, et al., 2018) claim that during the last few decades there has been an ideological tendency, a neo-liberalistic view of the world that emphasized the belief that an individual's wellbeing is connected to a series of items, to their purpose, and consumption (Watkins, McLaughlin, & Parker, 2019). Globalization has underlined the concept of change thanks to the free movement of capital, with consequent lowered production costs (Chomsky & Polychroniou, 2017). As a consequence, after sometime, inequalities have escalated (Milanovic, 2016). Therefore, it is easy tobelieve that our towns, cities, and regions will be more and more characterized by *super-diversity*. The term refers to a dynamic interaction of variables among a growing number of individuals who present multipleorigins, who are transnationally related, socio-economically differentiated, and legally layered (Vertovec, 2019). These individuals contribute to developing complicated scenarios that are not easy to predict (Nota & Rossier, 2015). All this is also compounded by the technologies contributing to worsening working conditions for a vast number of people, increased wage disparities, the polarization of richness, and of occupations (Ford, 2015).

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

Lastly, as regards the life on our planet, the production of goods and 'wellbeing' in general has been based on a view of 'exploitation of resources' and on strategies including the adoption of more natural resources than the available ones, since nations use far more resources than their ecosystems are able to generate, at the cost of others (Walls, 2018). Humanity is living in an unsustainable manner, draining the Earth's limited natural resources faster than they are produced. In addition to making living circumstances more complex, this also increases poverty and inequality so much that it may threaten the opportunity for future generations to live and achieve their objectives regarding progress (Hallegatte, Fay, & Barbier, 2018). This could happen even in the wealthiest nations that seemed to have been able to protect themselves from the danger of being excluded and impoverished. Younger people and individuals with vulnerabilities such as disabilities, stories of migrations, and family unemployment are particularly in danger (Cohen-Scali et al., 2018).

The neoliberalist socio-economic perspective, along with adversities and complicated living situations in larger and larger groups of the population, promoted an ethic of disengagement towards the community, leading to individualisation, which does not take into account the risks of exclusion and vulnerability (Down, Smyth, Robinson, 2018). The disappearance of a democratic "socio-political community" within which citizens can support each other and share problems and successes, increases competition among individuals rather than mutual solidarity and this also contributes to feelings of distrust in the younger generations with high levels of uncertainty associated with the future (Hooley, et al., 2018; Alietti, 2013).

Career practitioners increasingly recognize that their role in this context is to help people think about their personal and professional contribution to these global challenges and to question in which work activities engage, in view of producing exchangeable goods or services

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

that contribute to the construction of sustainable and inclusive social contexts (Pouyaud & Guichard, 2017). As suggested by Guichard (2018), this requires the design and implementation of interventions that vary considerably from the ones carried out nowadays in career guidance activities. Because of this, we respond to this call by proposing a career intervention based on Sustainable Development, useful in activities to support the examination of adolescents' propensity to consider social challenges in their training and professional choices.

Some researchers suggested that adolescents who present consistent worries and anticipate a negative future are more likely to exhibit negative emotions and problem behavior like engaging in delinquency, substance use, and risky sexual behavior (Milot Travers, & Mahalik, 2019; Sipsma, Ickovics, Lin, & Kershaw, 2015). Furthermore, as suggested by Iovu, Hărăguș, Roth, (2018), and by Authors et al. (2018b), how adolescents construct their future can have severe and far-reaching effects on their prospective well-being and behavior and training investment, especially in higher education.

According to Eurostat data, Italy is near the bottom of the EU table for the number of young university graduates: less than one person out of six of those of working age has a degree in Italy, the second-worst figure in Europe after Romania. This is what emerges from Eurostat data (2018) on education levels in 2017, according to which Italy would have a negative record for graduates with 13.7% of those between 15 and 64 years of age. Between 25 and 34 years old, 26.4% of people with a university degree are graduates compared to 38.8% in the EU. Between 25 and 34 years old, 26.4% of people with a university degree are graduates compared to 38.8% in the EU.

This is a worrying situation in the current context, where training has become indispensable to train young people to design their futures in complex environments, where

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

holistic visions and approaches need to be developed to attain the transition to a sustainable society and simultaneously calls for a development marked by increased complexity. Education has been generally considered significant contributor to the promotion of sustainability, as being able to produce graduates with the ability to understand and prevent global threats and to look for new, complex and innovative solutions to these challenges to guarantee themselves and the future generations a society able to provide well-being and satisfaction (Karatzoglou, 2012; Guichard, 2018; Peterson & Helms, 2014).

Furthermore given the demands and threats of the twenty-first century, it becomes increasingly important to help young people to re-invest in their future, paying attention to their skills to deal with future challenges and unpredictable situations, as career adaptability, along with those that allow young people to find meaning for their future in this self-destroying reality (Handa, 2018; Husman, Brem, Banegas, Duchrow, & Haque, 2014). Adolescents who feel more responsible for their future and therefore invest more in its construction, tend to put more effort in learning and achieve better grades than adolescents who think less about possibilities regarding their future in general and their future study and careers (Taber, 2013).

Life Design Approach to Inclusive and Sustainable Vocational Guidance activities

Given the threats humanity is currently facing, particular attention has recently been paid to the issues related to social justice, inclusion, decent work, and sustainable development (Guichard, 2018). So, in career intervention actions characterized by inclusion and sustainability, it could be essential to stimulate youth to think less about the self and more about what could happen to other people, recognizing responsibility, commitment, and the *mission possible* that every individual would like to accomplish and carry out for his/her future. As Hooley et al. (2018) also state, there can be no career intervention without social solidarity and inclusion,

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

without guaranteeing supports, protections, emergency lanes, and rescue systems, at least as concerns people less able to compete.

In this process could be essential to stimulate young people involved in career intervention activities to develop the career adaptability to be the readiness to cope with changes and challenges individuals encounter. As suggested by Johnston (2018), the concept of career adaptability, in recent years, has frequently been noted as a resource necessary for successful career development, positive responding to a number of challenges in the domains of career and work, and improved well-being. Savickas and Porfeli (2012), highlight the relation between career adaptability and adapting responses, which are the actual behaviors that help individuals to meet changing conditions, such as investment in the future and in education (Savickas & Porfeli, 2012). Future investment has been found necessary for adolescents' education (Andre, VanVianen, Peetsma, & Oort, 2018). However, we must operate not only on the personal career lives and all aspects of their lives but also to the impact that individual life choices have on the environment and people at the broader systemic level, not only in isolation, but integrated (Hartung, 2019; Kenny, Blustein, Liang, Klein, & Etchie, 2019). In this way people may be designed sustainable development career related to an inclusive economic, social and environmental development, aiming to build a continuous process through all phases of career planning, applying a more comprehensive vision, looking at the local, the regional and the global facets, showing the need of cooperation (Kimaryo 2011; Davim, 2017).

In doing this, it may be essential to develop abilities such as looking at the outside world, being curious, imagining what may happen in the future, by keeping in mind that all of this could not be considered in terms of personal interests, passions, and capitals (Authors, 2019a; Cohen-Scali et al., 2018). Besides, it may be essential to begin with the challenges that young people

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

would like to face, and with the abilities they would like to obtain and develop in order to help them to manage these challenges. This would help to minimize the risk to make the future largely dependent from the past/present and from several personal and contextual determinisms that can be inhibitory for possibilities and wishes (Hooley, Sultana, & Thomsen, 2019; Rossier et al., 2019). By moving toward the future and thinking about the challenges that young people would like to face, their attention and their worries will shift to intentions, to desired perspectives, to the things that must be acquired and reinforced, to the circumstances that have to be encouraged and looked for, to the occasions to be discovered with insatiable curiosity, to the goals to be pursued with perseverance. These goals will have to be relevant and meaningful to those who intend to pursue them (Down, Smyth, & Robinson, 2018).

The feeling to be able to give a personal contribution can itself encourage investments in the future, even if the detected goals could still appear as uncertain, temporary, not so realistic or smooth, and still likely to be modified (Authors, 2019a). Accurately, young people may perceive the importance of investing in training for the promotion of general cultural and civic values, to prepare for life and work in the context of social and cultural changes, for the development of personal and national identity, statehood and cultural belonging and development of responsibility for themselves, for others, for society and the environment (Beka, 2017).

Consequently, vocational guidance must be restored as a social practice of support for individuals, and as a 'political' action, as regards public administrators (Fouad, 2019). Thereby, the values of the 2030 Agenda, adopted by all the United Nations (UN) Member States, can be taken into consideration and their encouragement to think about some events and emergencies that the future will bring to the new generations can be accepted.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

In light of what said above, we believe that the future will be better only if choices and projects, also professional ones and especially those of our young people, are less 'ego-centric' and more oriented to prefer activities that allow them not only to achieve their own wellbeing but, being inspired by less individualistic values, also to contribute to the realization of quality life contexts for everyone, in which only the utopia of inclusive, equitable and sustainable development should be considered (Giovannini, 2018; Authors, 2018c). Vocational guidance must keep alive its original social mission: social and ethical values, attention to conditions of greater vulnerability, caring for people and for life contexts (Guichard, 2018), thus strengthening with inclusive and sustainable operations the considerations already suggested in the Life Design approach.

Purpose of the Study

From this perspective, in the present study, we developed a career intervention activity called *“Looking to the future and to the university in an inclusive and sustainable way”*. This activity is designed to inspire young people to reflect about the future, to take into account the threats that our society is facing, and thus considering which study course to undertake and what professional improvement to provide to make their contribution in reaching by the year 2030 at least some of the 17 goals that the UN proposed to the entire planet. To evaluate the effectiveness of career intervention, we tested the statistical significance of the post-intervention change in several key career development variables. We have examined the propensity to identify desires for the future that take into account not only personal goals but also the social challenges encountered today, with a focus on sustainable and equal development, career adaptability, crucial for designing and managing an occupational future (Savickas & Porfeli, 2012), and investment in future and in education (Authors, 2016). Also, we evaluated indicators

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

of the social validity of the intervention. These indicators, as promoted in the social validity literature, included participants' perceived satisfaction with the intervention and its utility for career planning, self-reflection, and investment in the future and education (Authors, 2019a).

As a result of the career intervention, then we expected that compared to a more traditional vocational guidance activity, the sustainable career intervention group would report higher post-test levels of inclusive and sustainability wishes to undertake for their future, career adaptability, future, and training investment. We also expected that the experimental group would indicate their satisfaction with the career intervention and rate it as useful, practical, and essential for reflecting on specific dimensions of their career development. In sum, we examined the comparative efficacy of the career intervention and the social validity of its use for high school students.

Method

Participants

Participants were 75 high-school students with a mean age of 17.21 years ($SD = .62$). All participants attended five different classes of public high schools in northeastern Italy. A total of 43 students (88%) from three separate classes of three public school agreed to participate in the *“Looking to the future and to the university in an inclusive and sustainable way”* career intervention (experimental group) and 32 students (96%) from two classes of another public school accepted the proposal to conduct a vocational guidance program and participated (control group). The experimental and control groups contained 2% and 1% first-generation immigrants from North Africa and Eastern Europe, respectively, and the remainder of the participants was Italian native.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

No significant gender differences were identified between the intervention group and the control group, $\chi^2(1) = .135$, $p = .447$, and age, $t(73) = 1.356$, $p = .179$.

Measures

Wishes about the future. Considering past studies (Hartung, 2015; Authors, 2016) that suggested stimulating young people reflections on their wishes about the future, participants were asked to answer to these questions: "About my future what I desire most is...". Answers to these questions were analyzed by considering the following categories made up, referring to the Life Design approach (Savickas et al., 2009; Authors, 2016): attention on self and personal goals; attention to relationships and social challenges. Participants answered to this question at the beginning and the end of the intervention.

Career adaptability. To measure career adaptability, we used the Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012). The CAAS comprises 24 items set on a 5-point Likert-type scale ranging from 1 (*not strong*) to 5 (*strongest*). The 24 items combine to yield a total career adaptability score. The items also form four separate six-item subscales that measure the career adaptability resources of concern (e.g., "Realizing that today's choices shape my future"), control (e.g., "Counting on myself"), curiosity (e.g., "Investigating options before making a choice"), and confidence (e.g., "Working up to my ability"). For the present study, we used the Italian validated version of the CAAS for middle-school students (Authors, 2015). Cronbach's alphas for the four subscales in the present study were .78 (concern), .71 (control), .75 (curiosity), and .86 (confidence).

Investment in the future. An investment in the future is the inclination to feel responsible for the creation of a personal future life. To measure it, we used the 4-item Locus of Control subscale of the Ideas and Attitudes on School-Career Future - High School Version (Authors,

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

2001). Participants indicated on a 5-point scale how much each statement depicted their usual opinion and behavior (1 = Does not describe me at all; 5 = Describes me very well). The scale presents reverse scoring, which means that a lower score corresponds to a higher level of investment in the future. Sample items include: “It is useless to try to think about my future ... a lot will depend on the case” In the present study, alpha was .72 for the sustainable career intervention group and .70 for the more traditional group.

Training investment. To measure future training investment, we used Gati and colleagues’ (2011) Career and Education Decision Status Scale. Participants were asked to answer to one question on a 6-point Likert-type scale (1 = Not at all decided; 6 = Very decided): “About what to do after high school, which of these statements best describes your current situation?”. In a prior study of Authors (2016), Cronbach’s alpha of these items was .66 and positive correlations with the level of career adaptability and hope students had about their future.

Social validity. To examine the social validity of the “*Looking to the future and the university in an inclusive and sustainable way*” intervention we developed two items designed for use post-test to measure experimental group participants’ overall satisfaction with the intervention and perceived utility and importance of the training and activities referring to the study by Authors et al. (2019b). Participants responded to each item using a 5-point Likert-type scale ranging from 1 (not at all satisfied) to 5 (extremely satisfied).

“Looking to the future and the university in an inclusive and sustainable way” Career intervention

For the experimental group, we developed and carried out a group career intervention for high school students, with and without disabilities and/or learning difficulties, in heterogeneous classes, The title of the intervention is “Looking to the future and to the university in an inclusive

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

way". The goal was to encourage their investment in university education. It consists of 5-didactic units, of two hours each at once, weekly, for a total of 5 weeks. Vocational guidance practitioners led the training sections with a postmaster diploma certification in career counseling and vocational guidance.

In the First Didactic Unit, there was an explanation regarding the definition of career guidance and the kind of support that it gives to people. Later, as proposed by Handa (2018), there was a discussion concerning the five areas of crucial importance for humanity and the planet identified by the UN (People, Planet, Prosperity, Peace, and Partnership).. In this way, students can be prepared for addressing the issues that threaten sustainability in our planet. Successively, students were asked to analyze these issues in connection with their hopes and worries for the future.

In the second didactic unit, to develop a global perspective and develop students as global citizens who are exposed to a range of perspectives on issues of globalization (Zeichner, 2010), the 17 Sustainable Development Goals set by the UN were introduced and explained. Students were asked to list the more interesting goals (at least a couple) according to them and explain why. During this meeting, there was also a discussion about the significance of education and determination for the future. Adolescents were invited to think about the advantages that these resources can bring to their future, and how these could be connected to the UN goals to develop skills, perspectives, and values that promote sustainable living (Bullivant, 2011). During the third and fourth meetings, students were encouraged to reflect on their future *missions possible*, taking into consideration social emergencies and goals. The mission possible can be considered as future and imaginable activities and occupations through which people with the help of other

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

professionals try to meet one of the most worrying challenges for their future (Authors et al., 2019a).

In the last didactic unit, adolescents were helped to identify occupations and professional activities related to their missions, and possible training paths that can help them to acquire knowledge and skills useful to perform them. In line with this, the various and broad academic fields were analyzed, not examining specific degree courses. This encouraged participants to think about the purpose of education to accomplish their missions and the contribution that instruction and training could give concerning the pursuit of the goals and the management of the emergencies detected (Authors et al., 2019b).

More traditional Vocational Guidance Activity

During the same period in which the guidance intervention group completed the “Looking to the future and to the university in an inclusive way”, the more traditional group was led in the classroom without the active intervention of vocational guidance practitioners. The intervention was conducted in the class during the hours dedicated on vocational guidance activities that the Italian high school's reserve for students who are about to choose their future university and/or work, thus required by the Italian school programs (MIUR, 2014; Nota et al., 2016). The more traditional group was implemented by professional vocational guidance in different high schools in northeastern Italy from the one where was conducted the guidance intervention group. Students in the more traditional group responded, in paper and pencil format, to measures of interests, values, and study motivation. Based on their responses, students received a personalized report with the principal strength emerged useful to plan their future and make a decision making related to education or work. In the first two meetings of two hours each, the students filled out the questionnaire, and after a week, the personalized report was

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

given in a sealed envelope. These reports were discussed with students in groups, and a range of information about university training education and job opportunities were also provided. Such activities required approximately 2 hours, and overall the more traditional group took six hours in three sections.

Data Analysis

The effectiveness of the intervention was evaluated carrying out repeated-measures analyses of variance over time as a function of treatment condition. The independent variables were treatment condition (intervention vs. control group). Pre–post-measurement was the repeated measurement factor time (O'Brien, Kaiser, Kister, 1985). The effect size was assessed using the partial eta squared (η^2_p), which evaluates the percentage of variance explained by each variable. Conventionally, the threshold values for the index η^2_p are .01, .06, and .14, which indicates respectively, a small, moderate, and large effect size (Greene & Salkind, 2003).

Results

Coding of responses to the question "About my future what I most desire is" (wishes about the future)

The first and second authors individually analyzed the answers to the question. The percentage of agreement between the two coders was over 98% for all categories.

Preliminary analyses

Table 1 shows the correlations among the study variables at the pre- and post-test. Table 2 shows the means and standard deviations for participants in the control and sustainable career intervention group at pretest and post-test.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

A Manova was conducted to determine if there were significant differences between treatment group condition at the time of the pretest on any of the dependent variables (concern, control, curiosity, confidence, future investment, training investment, wishes about the future).

Manova revealed no significant differences between the two groups (career intervention vs more traditional group), [Wilks's $\lambda = .872$, $F(8,65)$, $p = .316$].

Pre and post-test comparisons

To assess differences between two group treatment conditions and time on any of the dependent variables (concern, control, curiosity, confidence, future investment, training investment, wishes about the future), different repeated-measure MANOVA were conducted (see Table 3).

As regards career adaptability significant interaction was yielded for treatment condition x time condition, Wilks's $\lambda = .129$ [$F(4, 69) = 2.545$; $p = .047$]; $\eta^2 p = .129$. The Table 3 shows the mean values obtained. At univariate level the following variables revealed significant differences: Control, $F(1, 72) = 6.219$, $p = .015$, $\eta^2 p = .080$, Curiosity, $F(1, 72) = 6.701$, $p = .012$, $\eta^2 p = .085$, Confidence, $F(1, 72) = 8.232$, $p = .005$, $\eta^2 p = .103$. The analysis revealed that students in sustainable career intervention group showed more concern, curiosity, and confidence than the more tradition intervention group. Table 3 reports the means and standard deviations of sustainable career intervention and more traditional group at pre-test and post-test.

As regards future investment significant interaction was yielded for treatment condition x time condition, Wilks's $\lambda = .845$ [$F(73, 1) = 13.392$; $p = .001$]; $\eta^2 = .155$. Specifically, the average levels of indecision towards the future are lower in the post-test participants who took part in the sustainable career intervention than the average levels reported by the participants of the control group.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

As regards training investment, a significant interaction was yielded for treatment condition x time condition, Wilks's $\lambda = .898$ [$F(1,73)=7.928$; $p=.006$]; $\eta^2=.102$. Specifically, the average levels of training investment are higher in the post-test participants who took part in the sustainable career intervention than the average levels reported by the participants of the control group.

Finally, as regards the categories used in the qualitative answers related to the future, a significant interaction was yielded for treatment condition x time condition, Wilks's $\lambda = .925$ [$F(2, 73)=3.364$; $p=.030$]. Specifically, the sustainable career intervention group reports at the post-test more categories related to attention to relationships and to others used to describe their wishes about the future than the participants of the control group.

Participants' Evaluation of Career Intervention. Finally, we evaluated the social validity of the vocational guidance intervention. Overall, students evaluated the vocational guidance intervention as important to reflect upon specific dimensions, and satisfactory in enabling them to cope with career future projects and transitions. Specifically, 14 % indicated that they were delighted with the overall program, 45 % satisfied, 36 % neutral, 3 % little satisfied, and 2 % not satisfied at all; 29 % indicated that they were delighted to be a part of the sustainable career intervention, 40% satisfied, 20 % neutral, 6 % little satisfied, and 5 % not satisfied at all.

Discussion

The world becomes increasingly complex and uncertain and characterized by mega-trends such as globalization, cultures mix, economies grow. In addition to these trends, humanity is altering the planet's climate, animals and landscapes in unprecedented ways, and threatening all life on earth. Given these global developments, students and youth have an increasing demand

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

for education that goes beyond teaching knowledge and skills just to find a job. Above all, students need new perspectives to be able to understand the rapidly changing world they live in (Hunter, April, Hill, Emry, 2018). Also, youth need to participate in this world. Many of them also want to help reduce poverty, protect the environment, and create inclusive societies (Hunter et al., 2018). To realize this ambition, a new approach to career intervention that taking into account this is needed. This research has proposed to experiment a trajectory in this direction with a career intervention "Looking to the future and the university in an inclusive and sustainable way" inspired by the LD approach aiming to educate students as global citizens for sustainable development (Guichard, 2018; Author, in press.). The program aims to engage youth to reflect about the future, to address the threats that our society is facing, starting with the challenges that young people want to face and the skills they want to acquire and develop in order to contribute to facing them. It also seeks to encourage them to take more responsibility for their futures, the importance of investing in higher education to be prepared for life and work in the context of social and cultural changes, and for the development of responsibility for themselves, for others, for society, and the environment. In the present paper, the career intervention program was initially validated. Our findings indicated that students in the "Looking to the future and the university in an inclusive and sustainable way" career intervention group showed higher levels of career adaptability and specifically of concern, control, confidence, and greater levels di investment higher education than did those in the more traditional group. Moreover, the students from the inclusive and sustainable career intervention group expressed future wishes that include some crucial aspects of the LD approach, attention on self, and personal goals, but also attention to relationships and social challenges. The results appear to

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

bepromising, taking into consideration the partial eta squared values, which were between .10 and .15, and that can be considered medium.

As regards career adaptability, the highest levels of control, the career intervention support young people to find their voices and identify the role they can play in building a quality future for themselves and others. On the other hand, young people may have experienced the possibility of having an active role in the becoming critical and creative thinkers, and in co-designing their future wishes and learning what is necessary for the world in which they now live, and for the futures they will need to define for themselves and future generation. As regards curiosity, our results show significant differences, and this, according to us, maybe since the intervention put young people in front of questions and challenges that did not come from the doubts they had. On the contrary, it required them to explore something that they recognized as new to focus their attention on. Encouraging curiosity increases the motivation to look for information (Kashdan & Silvia, 2009) and to concentrate on important details of higher education and university in order to detect jobs and lines of employment connected to their missions, and possible training processes that can assist them in the acquisition of knowledge and abilities useful to accomplish them (Authors, 2017; Savickas, 2013).

Regarding confidence, working backward by moving into the future, thinking about the challenges that young people would like to face, their attention and worries may have become intentions, *mission possible*, with the detection of activities they felt they were able to do. This may have prompted a feeling of self-efficacy in order to successfully execute the activities needed to achieve one's career goal and then, as suggested by Hirshi, Hermann, and Keller (2015), an increase in problem-solving skills and a feeling of being efficacious. As suggested by Koen et al. (2012), career confidence is connected to the employment of an exploratory

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

approach. As regards the concern, our intervention did not highlight significant results. It may be necessary, for future intervention, to try to get the challenges to face even closer to young people's lives, who can be encouraged to consider future scenarios more closely, in order to examine them more clearly, and not to feel distant from them.

This intervention is associated with increased investments in higher education. In line with the results by Duffy (2010) and Negru-Subtirica (2016), inviting the students to feel more responsible for their future and therefore to invest more in its construction, can enable them to put more effort in higher education and future planning, since they take into consideration the advantages associated to it. As a consequence, we can say that the intervention helped young people to consider higher education as a means that, through democratic values and multidimensional learning, can be characterized as a way for undertaking future challenges and a sustainable development, as suggested by Pucciarelli and Kaplan (2018). Yáñez, Uruburu, Moreno, Lumbreras (2019), and Rossier et al. (2019), in order to support this, examine the value that Universities acquired in training and promoting future experts by instructing them, realizing new tools with which to face new challenges in nowadays society thanks to their organizations and research resources, sharing their knowledge to add inclusive and sustainable value to companies and societies.

The students of the inclusive and sustainable career intervention group also underlined future wishes that take into account some key aspects of the LD approach, attention on self and personal goals, attention to relationships, and social challenges. This result may be due to the use of reflection, which, as also supported by Cohen-Scali and Pouyaud (2019), brings to greater recognition of young people as socio-politically active participants in their futures and the futures of their communities. During career training, there was an attempt to develop

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

consciousness in young people. This consciousness, as supported by li Roy, Raver, Masucci, and DeJoseph (2019), brings young people to understand how to learn to analyze their social conditions and act to change them.

Overall, our results are in line with Arulmani (2011) who sustained the importance to develop career intervention with sensitivity to the 'other', asking the individual to define the purpose and outcomes of his/her engagement with work, and with the importance given by Guichard (2018) to the reflections on the construction of futures that take into consideration the planet we live. This principle points out that how an individual engages with work should be a reflection of 'right living', aiming to promote a sustainable career design, in harmony within oneself, the community, and the environment, and this could lead toward a situation wherein the realization of an individual's potential would support rather than exploit the environment in which the career is practiced. Moreover, our results indicate that it is possible to create a career intervention based on the LD approach focused on career adaptability. Therefore, it is also possible to improve a series of individual resources to manage developmental tasks to be prepared for sustainable future careers and face the challenges that we are going through. As a consequence, careers are considered as dynamic interactions between the garnering of personal gain and the services that people render to society at large and, more generally, this leads to life designs in which one's duty is to use one's achievements as a platform of service to others (Arulmani, 2011; Authors, 2019c).

Implications for Practice

The work carried out has shown that it is possible to realize inclusive and sustainable career interventions in large groups in school contexts, able to encourage young people to look at the external reality, to what will happen in the future, supporting them to work backward, starting

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

from the challenges they would like to face and then reflecting on the abilities that they wish to obtain and develop in order to reach their goals. This should be done by moving toward the future, from the threats that humanity and the Earth are suffering, thinking about the challenges that young people would like to face. The latter will be able to outline their desires, the things they have to learn and strengthen, the conditions to be encouraged and looked for, the occasions to be discovered with insatiable curiosity, the goals to be pursued with perseverance. These goals will have to be relevant and meaningful to those who intend to pursue them and have to encourage them to move toward them already in the present, anticipating the future in ecological-behavioral terms. This will combine private and public spheres, the 'I' and the 'us', passions and personal capitals, with a pro-social view oriented toward a common good. This also facilitates the dissemination of a new culture of the vocational guidance that considers individuals both subject to and actors upon the material and social world, understanding that the actions have impacts now and in the future, and contributing to improving places and relationships seems imperative given the conditions of this era we find ourselves.

Limitations and Future Research Directions

Although some encouraging results emerged, our study presents some limitations. Firstly, the findings and reflections described concern the Northeastern Italian school context. Hopefully, future research will involve participants from other Italian regions to verify the generalizability of the analyses reported in this study. Future research involving career interventions regarding the assessment of "Looking to the future and the university in an inclusive and sustainable way" should include students of different ages.

Moreover, it must also be remembered that the satisfactory assessment of training efficacy should not be limited to recording changes that happen just a few weeks after the conclusion of

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

the program. Future research should also include 6- and 12-month follow-ups to control if students preserve and generalize the abilities that were developed thanks to the intervention. It would be essential to repeat the study using a tool that measures explicitly high school students' sustainability investment. Future research could also take into consideration the impact that this career intervention may have on other variables linked to the LD approach, as the narrations about the future of young adolescents.

References

- Alietti, A., & Agostoni, A. (2013). *Integrazione, casa e immigrazione. Esperienze e prospettive in Europa, Italia e Lombardia* [Integration, housing and immigration. Experiences and perspectives in Europe, Italy and Lombardy]. Milano: Fondazione Ismu Regione Lombardia.
- Andre, L., van Vianen, A. E., Peetsma, T. T., & Oort, F. J. (2018). Motivational power of future time perspective: Meta-analyses in education, work, and health. *PloS one*, *13*(1), e0190492. doi: 10.1371/journal.pone.0190492
- Arulmani, G. (2011). Striking the right note: The cultural preparedness approach to developing resonant career guidance programmes. *International Journal for Educational and Vocational Guidance*, *11*(2), 79-93. doi: 10.1007/s10775-011-9199-y
- Author et al. (2015).
- Authors (2016).
- Authors (2017).
- Authors (2018a).
- Authors (2018c).
- Authors (2019c).

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

Authors (in press.)

Authors et al. (2018b).

Authors et al. (2019b).

Beka, A. (2017). The Impact of Games in Understanding Mathematical Concepts to Preschool Children. *Journal of Educational and Social Research*, 7(1), 187-194.

Bullivant, A. (2010). Global learning: A historical overview. In H. Gadsby & A. Bullivant (Eds.), *Global learning and sustainable development* (pp 18-36). London: Routledge.

Chomsky, N., & Polychroniou, C. J. (2017). *Optimism over despair*. London: Penguin.

Cohen-Scali V., Pouyaud J. (2019). A Career Education Approach Based on Group Dialogues to Help Adolescents and Emerging Adults in Their Self Construction. In: Maree J. (Eds) *Handbook of Innovative Career Counselling* (pp. pp. 405-424). Switzerland: Springer.

Cohen-Scali, V., Pouyaud, J., Podgórný, M., Drabik-Podgorna, V., Aisenson, G., Bernaud, J. L., ... & Guichard, J. (2018). *Interventions in Career Design and Education: Transformation for Sustainable Development and Decent Work*. Paris: Springer.

Davim, J. P. (Ed.). (2017). *Sustainable Machining*. Springer, Cham.

Down, B., Smyth, J., Robinson, J. (2018). *Rethinking School-to-Work Transitions in Australia: Young People Have Something to Say*. Dordrecht: Springer.

Duffy, R.J. (2010). *Putting children first: A framework for change in school governance*. Rochester, NY: Mayor's Office.

Eurostat (2018). *The Education and Training Monitor*. Luxembourg: Publications Office of the European Union. doi: 10.2766/28521

Ford, M. (2015). *Rise of the Robots: Technology and the Threat of a Jobless Future*. Basic Books.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

- Fouad, N. A., & Kozlowski, M. B. (2019). Turning Around to Look Ahead: Views of Vocational Psychology in 2001 and 2019. *Journal of Career Assessment*, 27(3), 375-390. doi: 10.1177/1069072719841602
- Gati, I., Gadassi, R., Saka, N., Hadadi, Y., Ansenberg, N., Friedmann, R., & Asulin-Peretz, L. (2011). Emotional and personality-related aspects of career decision-making difficulties: Facets of career indecisiveness. *Journal of Career Assessment*, 19(1), 3-20. doi: 10.1177/1069072710382525
- Giovannini, E. (2018). *L'utopia sostenibile* [The sustainable utopia]. Bari: Laterza.
- Green, S. B., & Salkind, N. J. (2003). *Using SPSS for windows and macintosh: Analyzing and understanding data* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Guichard, J. (2018). Life Design Interventions and the Issue of Work. In V. Cohen-Scali, J. P. Pouyaud, M., Drabik-Podgorna, G., Aisenson, J. L Bernaud,, ... & J.V Guichard,. (Eds.) *Interventions in Career Design and Education: Transformation for Sustainable Development and Decent Work*. (pp. 15-28). Paris: Springer, Cham.
- Hallegatte, S., Fay, M., & Barbier, E. B. (2018). Poverty and climate change: introduction. *Environment and Development Economics*, 23(3), 217-233. doi: 10.1017/S1355770X18000141
- Handa, N. (2018). *Education for Sustainability through Internationalisation: Transnational knowledge exchange and global citizenship*. Springer.
- Hartung, P. J. (2015). Life design in childhood: Antecedents and advancement. In L. Nota & Hartung, P. J. (2019). Life Design: A Paradigm for Innovating Career Counselling in Global Context. In J.G. Maree (Ed.), *Handbook of Innovative Career Counselling* (pp. 3-18). Switzerland: Springer, Cham.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

Hirschi, A., Herrmann, A., & Keller, A. C. (2015). Career adaptivity, adaptability, and adapting:

A conceptual and empirical investigation. *Journal of Vocational Behavior*, 87, 1-10. doi: 10.1016/j.jvb.2014.11.008

Hooley, T., Sultana, R. G., & Thomsen, R. (2018) (Eds.), *Career Guidance for Social Justice: Contesting Neoliberalism*. Oxon, England: Routledge.

Hooley, T., Sultana, R. G., & Thomsen, R. (2019) (Eds.). *Career guidance for emancipation: Reclaiming justice for the multitude*. Oxon, England: Routledge.

Hunter, M. A., Aprill, A., Hill, A., & Emery, S. (2018). *Education, arts and sustainability: Emerging practice for a changing world*. Singapore: Springer.

Husman, J., Brem, S. K., Banegas, S., Duchrow, D. W., & Haque, S. (2015). Learning and future time perspective: the promise of the future—rewarding in the present. In M. Stolarski, N. Fioulaine, & W. van Beek (Eds.), *Time Perspective Theory; Review, Research and Application* (pp. 131-141). Germany: Springer.

Iovu, M. B., Hărăguș, P. T., & Roth, M. (2018). Constructing future expectations in adolescence: relation to individual characteristics and ecological assets in family and friends. *International Journal of Adolescence and youth*, 23(1), 1-10. doi: 10.1080/02673843.2016.1247007

J. Rossier (Eds.) *Handbook of the life design paradigm: From practice to theory, from theory to practice* (pp. 89-102). Göttingen, Germany: Hogrefe Publishing.

Johnston, C. S. (2018). A systematic review of the career adaptability literature and future outlook. *Journal of Career Assessment*, 26(1), 3-30. doi: 10.1177/1069072716679921

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

- Karatzoglou, B. (2012). An in-depth literature review of the evolving roles and contributions of universities to Education for Sustainable Development. *Journal of Cleaner Production*, 49, 44-53.
- Kashdan, T. B., & Silvia, P. J. (2009). Curiosity and interest: The benefits of thriving on novelty and challenge. In C. R. Snyder & S. J. Lopez, *Oxford handbook of positive psychology* (pp. 367-374). New York: Oxford library of psychology.
- Kenny, M. E., Blustein, D. L., Liang, B., Klein, T., & Etchie, Q. (2019). Applying the psychology of working theory for transformative career education. *Journal of Career Development*, 46(6), 623-636. doi: 10.1177/0894845319827655
- Kimaryo, J. (2011). *Strategies for Improving Competence Based Education in Tanzania: Experiences, Insight and Possibility*. Retrieved from https://www.doria.fi/bitstream/handle/10024/67481/kimaryo_lydia.pdf?...1
- Koen, J., Klehe, U. C., & Van Vianen, A. E. (2012). Training career adaptability to facilitate a successful school-to-work transition. *Journal of Vocational Behavior*, 81(3), 395-408.
- Milanovic, B. (2016). *Global inequality: A new approach for the age of globalization*. Harvard University Press.
- Milot Travers, A. S., & Mahalik, J. R. (2019). Positive youth development as a protective factor for adolescents at risk for depression and alcohol use. *Applied Developmental Science*, 1-10. doi: 10.1080/10888691.2019.1634569
- MIUR. (2014). *Linee guida nazionali per l'orientamento permanente* [National guidelines for lifelong guidance]. Retrieved from http://www.istruzione.it/allegati/2014/prot4232_14.pdf

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

- Negru-Subtirica, O., & Pop, E. I. (2016). Longitudinal links between career adaptability and academic achievement in adolescence. *Journal of Vocational Behavior*, 93, 163-170. doi: 10.1016/j.jvb.2016.02.006
- Nota, L. & Rossier, J. (2015). *Handbook of Life Design: From Practice to Theory and From Theory to Practice*. Göttingen: Hogrefe.
- O'Brien, R. G., & Kaiser, M. K. (1985). MANOVA method for analyzing repeated measures designs: an extensive primer. *Psychological bulletin*, 97(2), 316-333. doi: 10.1037/0033-2909.97.2.316
- Peterson, P. M., & Helms, R. M. (2014). Internationalization revisited. In A. Maldonado-Maldonado & R. M. Bassett (Eds), *The Forefront of International Higher Education* (pp. 101-111). Dordrecht: Springer.
- Pucciarelli, F., & Kaplan, A. (2018). *Le università europee oggi: sfide e nuove strategie* [European universities today: challenges and new strategies]. *E&M*, (1), 85-95.
- Rossier, J., Aisenson, G., Chabra, M., Cohen-Scali, V., Di Fabio, A., Heslon, C., ... & San Antonio, D. M. (2019). Lifelong Learning, Counseling, and Life-designing to promote Careers for the Future. Retrieved from: <https://recherche.uco.fr/publication/ID-UCO-4192>
- Roy, A. L., Raver, C. C., Masucci, M. D., & DeJoseph, M. (2019). "If they focus on giving us a chance in life we can actually do something in this world": poverty, inequality, and youths' critical consciousness. *Developmental Psychology*, 55(3), 550-561. doi: 10.1037/dev0000586
- Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp.147-183). Hoboken, NJ: Wiley.

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, *80*, 661-673. doi: 10.1016/j.jvb.2012.01.011
- Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., ... & Van Vianen, A. E. (2009). Life designing: a paradigm for career construction in the 21st century. *Journal of Vocational Behavior*, *75*, 239-250. doi: 10.1016/j.jvb.2009.04.004
- Sipsma, H. L., Ickovics, J. R., Lin, H., & Kershaw, T. S. (2015). The impact of future expectations on adolescent sexual risk behavior. *Journal of Youth and Adolescence*, *44*, 170-183. doi: 10.1007/s10964-013-0082-7
- Taber, K. S. (2013). Revisiting the chemistry triplet: drawing upon the nature of chemical knowledge and the psychology of learning to inform chemistry education. *Chemistry Education Research and Practice*, *14*, 156-168. doi: 10.1039/C3RP00012E
- Vertovec, S. (2019). Talking around super-diversity. *Ethnic and Racial Studies*, *42*, 125-139. doi: 10.1080/01419870.2017.1406128
- Walls, L. D. (2018). *Emerson's Life in Science: The Culture of Truth*. United States: Cornell University Press.
- Watkins, P. C., McLaughlin, T., & Parker, J. P. (2019). Gratitude and subjective well-being: Cultivating gratitude for a harvest of happiness. In N. R. Sifton (Ed), *Scientific concepts behind happiness, kindness, and empathy in contemporary society* (pp. 20-42). Hershey, Pennsylvania: IGI Global.
- Yáñez, S., Uruburu, Á., Moreno, A., & Lumbreras, J. (2019). The sustainability report as an essential tool for the holistic and strategic vision of higher education institutions. *Journal of Cleaner Production*, *207*, 57-66. doi: 10.1016/j.jclepro.2018.09.171

CAREER INTERVENTION, INCLUSION, SUSTAINABILITY

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college-and university-based teacher education. *Journal of Teacher Education*, 61, 89-99. doi: 10.1177/0022487109347671

Table 1

Correlations Among the Study Variables at Pre- and Post-test

Measure	1	2	3	4	5	6	7
1. Concern	-	.528**	.565**	.526**	-0.117	0.219	-0.207
2. Control	.515**	-	.538**	.707**	-0.032	0.086	0.008
3. Curiosity	.452**	.547**	-	.614**	0.119	0.079	0.025
4. Confidence	.533**	.576**	.560**	-	0.051	0.094	0.043
5. Investment in the future	-.415**	-.239*	-.050	-.033	-	-.392**	-0.144
6. Training Investment	.185	.033	.073	-.075	-.271*	-	-0.034
7. Wishes about the future	.048	.133	.036	.136	.000	-.085	-

Note. Intercorrelations for pretest (n=75) are presented below the diagonal, and intercorrelations for posttest (n = 75) are presented above the diagonal.

*p<.05; **p<.01

Table 2

Means and Standard Deviations of the Experimental and Control Group at Pre- and Post-test

Measure	Experimental group				Control group				Total			
	Pre		Post		Pre		Post		Pre		Post	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
1. Concern	19.70	4.30	21.33	4.26	20.34	3.59	20.63	3.77	19.99	3.98	21.01	4.04
2. Control	22.80	4.13	23.88	3.76	23.63	2.85	22.50	3.99	23.17	3.62	23.26	3.90
3. Curiosity	21.00	3.85	22.20	4.16	22.09	2.79	21.03	3.47	21.49	3.44	21.68	3.89
4. Confidence	22.15	4.39	23.13	3.49	23.28	3.48	21.75	3.93	22.65	4.03	22.51	3.73
5. Investment in the future	8.75	2.77	8.18	2.09	8.03	2.24	9.34	2.56	8.43	2.56	8.69	2.37
6. Training Investment	1.23	1.25	1.78	1.23	1.28	1.08	0.97	1.06	1.25	1.17	1.42	1.22
7. Wishes about the future	0.25	0.44	0.53	0.85	0.22	0.42	0.28	0.52	0.24	0.43	0.42	0.73