Doi: 10.34862/sp.2019.8

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A reflection on career guidance skills for the 21st century in a Guidance Oriented Approach to Learning (GOAL)

Current changes in the social organization of work require a rethinking of guidance practices. In the field of vocational guidance, Life Design, based on the theories of *self-construction* of Guichard and *career construction* of Savickas, aims to be a lifelong, holistic, contextual, and preventive framework that responds to current challenges by focusing on individual development via the meaning one gives to his or her own discourses. This article highlights the place that these challenges and objectives are approached in schools. Drawing from the concept of Guidance Oriented Approach to Learning (GOAL) and the social cognitive theory of career and academic interest, we present a framework to implement a logic of accompaniment and personal development, rather than a logic of selection, in the school guidance process. The framework lays foundations to identify and develop career guidance skills for pupils that are relevant to the complex 21st century challenges faced by the future generation. It also provides guidelines to develop relevant educational tools that can contribute to pupils' empowerment as citizens that can understand and structure society and make reflexive choices for their personal development.

Keywords: Career construction, School guidance, Guidance Oriented Approach to Learning (GOAL), Life design, Career guidance skills, Educational tools, Self construction, Social cognitive theory

Today, young people's guidance is a major challenge all around the world. Stakes are at hold both for society and the school. Therefore, the need to improve educational and vocational guidance is one of the goals of the European Union's 10-year growth strategy, Europe 2020. Likewise, the Organization for Economic Co-operation and Development (OECD) aims to better prepare young people for their entry into the world of work and for the development of their guidance skills, by improving relationships between training and employment and by facilitating "young people's

entry into the labour market through integrated action covering i.a guidance, counselling and apprenticeships" (European Commission, 2010, p. 13).

This need to help young people find their professional path is due to the "technological progress, recent changes in the world of work and the effect of globalization [that] have necessitated a new conceptualization of theory, practice's and policy in the work arena (Schultheiss & Esbroeck, 2009) and in the field of career counseling (Maree, in press)" (Maree & Che, 2018, p. 1). Indeed, nowadays, career counseling and vocational guidance aims to help people build their own careers, develop their own identities and succeed in their lives (Savickas, 2015).

To achieve these objectives, recent theories based on *Life Design* define career counseling by the development of the subjective aspects of people's career and personal life stories (Maree, 2015). While guidance assistance has gradually evolved towards a paradigm shift based on people's biographies, in response to changes in the world of work (Arulmani, Bakshi, Leong, & Watts, 2014), school guidance is also changing to become a major objective in pupils' learning and development (Canzittu & Demeuse, 2017).

This paper presents a description of a framework developed to conceive *Guidance Oriented Approach to Learning* (GOAL or *approche orientante* in French) tools that contribute to the career guidance process, and initiates a reflection on the development of the career guidance skills necessary for young people to actively construct their story and contribute to society.

The evolution of educational and professional guidance: the need to respond to changes in the world

If vocational guidance has developed particularly since the beginning of the 20th century with the emergence of industrialization and the division of labor (Canzittu & Demeuse, 2017), it's not until after the Second World War that school guidance distinguished itself from it (Guichard & Huteau, 2006) when Antoine Léon (1957) pointed out that the principles of vocational guidance, linked to the world of work, do not allow pupils to work on their vocational choices. According to Léon, guidance should allow individuals to develop their personal freedom and not seek to integrate them at all costs into the labor market.

At the same period, focalization on individual development in career guidance was also developed in the Anglo-Saxon world with researchers such as Brewer, Landy or Kitson (Canzittu & Demeuse, 2017). In fact, as Jean Guichard & Michel Huteau (2006) have shown, the evolution of conceptions of orientation has progressed in line with the characteristics of society:

(1) The beginning of the 20th century advocated a professional system of work in which professional qualifications defined the subject who would carry out his activity throughout his life.

- (2) Then, under Fordist organizations or those linked to Taylor's theories, a mode of work organization is constructed that is more akin to chain production. Workers have a qualification related to a particular professional act or skill that they apply in a particular context: from work that defines an individual, we move on to a professional environment where the employee shares a set of common representations with his colleagues.
- (3) Later, under the influence of computerization, the technical system of work is developing where individuals must no longer necessarily be able to master the skills of a given profession, but rather those of particular productive situations. In the latter context, "the question of vocational guidance is no longer simply that of the "choice" of a profession. It is also that of the development of a career throughout life" (Guichard, 2007, p. 310).

Nowadays, school guidance aims to provide optimal opportunities for personal and professional development, emancipation and autonomy for each child by moving towards an "educational conception of guidance aimed at self-orientation throughout the life cycle" (Danvers, 2009, p. 393). In this sense, guidance is seen as helping the individual to determine his or her own future (Guichard, Forner, & Danvers, 2000). As a result, the objective for both pupils and adults is to develop skills that enable them to make coherent and relevant personal and professional choices and to be able to orient themselves throughout their lives (Paul & Suleman, 2005).

However, as Huteau (2007) already pointed out, differences between a "positive" orientation that evokes freedom and a "negative" orientation guided by selection and evoking coercion, are all relative. As although individuals can choose between a variety of paths and specialization, it is the institution that validates them more or less severely. Since educational paths and specialization lead to domains that have unequal value in terms of the social, economic and professional benefits, orientation processes can be described as selection processes.

At the beginning of the 21st century, orientation, whether professional or academic, is being questioned, particularly regarding its moral and ethical nature. Indeed, international organizations, such as the Organization for Economic Cooperation and Development (Organisation for Economic Co-operation and Development [OECD], 2015) or the United Nations (United Nations, 2015) highlight the need to strengthen a positive orientation that allows individuals to develop throughout their lives, by making economic markets and training systems more relevant (Guichard, 2018). For Denis Pelletier, the unstable nature of today's society is a reality and a value that must be taken into account: the individual is led to "live the crisis in a constant and sustained way because change has become the object to be pursued" (Pelletier, 2004, p. 19).

This questioning on the increasingly central place of guidance in the development of individuals is reflected in Life Design and the guidance oriented approach

to learning seek similar objectives in building free individuals and being able to think and transform the world.

A Guidance Oriented Approach to Learning (GOAL)

GOAL is a way of establishing a continuum of teaching and learning throughout the pupil's schooling that enables him or her to develop personal and professional projects. Also called "guiding school", a GOAL model allows the implementation of a dynamic approach aimed at providing pupils with the necessary skills to make their choices and get them involved in well-considered professional projects. The model is based on a triangle of continuous interaction, the ends of which are represented by the pupil, the school environment and the professional environment (see Figure 1). The link between the three bodies therefore makes it possible to give greater meaning to learning (Comtois, 2007).

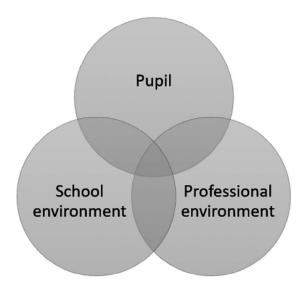


Figure 1. The three components of a GOAL

According to Pelletier (2004), by providing pupils with experiences that enable them to acquire the transversal skills necessary for the development of a career choice and involvement in a professional project, a GOAL makes it possible to qualify not only a person or a practice but also an environment. The model creates a need to support pupils' success and relies on the assumption that a pupil has a more motivated attitude when the learning situation allows him or her to appreciate the future scope of the training. It is therefore a question of putting pupils in better conditions for success by focusing on motivation and project construction.

GOAL therefore conveys a conception of education that attempts to help pupils to get to know themselves better, to be more academically motivated, to make connections between their school experiences and their career plans. It aims to encourage pupils to develop professional projects by integrating concepts related to guidance into subject content and other school-life activities, through the collaboration of all partners involved in the educational environment (Gingras, 2007, 2008).

In concrete terms, a GOAL is materialized by three main principles described by Pelletier (2004). First, it requires an "infusion" component, in other words, the integration, by teachers, of references to the world of work within the subject content itself (Canzittu & Demeuse, 2017).

This principle aims to involve the teaching team by proposing a set of pedagogical practices that allow links between disciplinary content and relevant vocational skills. The second principle aims at fostering collaboration between partners involved in the educational environment of pupils: guidance and information professionals, teachers, psychologists, parents, pupils, but also actors from the extracurricular world, the business world, etc. The last principle, called "mobilization", corresponds to the way of working with pupils and which will likely awaken in them a desire to succeed and to take part in their orientation. The aim is to encourage a motivated attitude on the part of the pupil. This principle, combined with a general tendency for individuals to operate on a per project-by-project basis, is essential for the success of infusion and collaboration activities.

Because a GOAL aims to build the young person's orientation, it can legitimately be assumed that it will develop specific skills related to career development. According to Pelletier (2004, p. 81), the guiding approach aims "to bring together transversal and vocational skills". Skills that can promote both academic and professional orientation for pupils by allowing them to discover new perspectives, qualities and possibilities in their own homes, while facilitating the emergence of real and motivating professional projects (Canzittu & Demeuse, 2017). As a result, mastering such skills should contribute, to a certain extent, to pupils' ability to understand and structure society, but also to make reflexive choices. In this respect, it appears that these career development skills are part of a "socio-professional" education (Fernández-Sierra, 1999) that integrates guidance into school curricula, in a transdisciplinary way.

Complex skills to overcome complex 21st-century challenges?

Focus on career development skills represents a means to envision and foresee future challenges that can arise in one's orientation. However nowadays, fast-changing society needs make it difficult for young people as well as adults supporting them, to anticipate opportunities in the professional environment and to target and develop skills accordingly (Conseil de l'Education et de la Formation [CEF],

2001; Demeuse & Lafontaine, 2005). Indeed, the new generation faces numerous challenges related to globalization, digitalization, knowledge management, ageing population, mass displacement, and increase in social inequalities. Their future integration on the workplace relies on their knowledge of the challenges of the 21st century and their capacity to develop themselves and act on a fast-evolving world. For these reasons, a GOAL needs to put emphasis on developing skills that can empower young people to become active agents of their lives and of society. The social cognitive theory of career and academic interest developed by Robert W. Lent, Steven D. Brown and Gail Hackett (1994) on the basis of Albert Bandura's social cognitive theory (Bandura, 1998) emphasizes each person's capacity to guide their academic and career path while recognizing the numerous personal and environmental influences that contribute to reinforce, weaken or, in some cases, annihilate personal agency or one's capacity to be self-directing (Lent, 2008). Self-directing individuals are considered "proactive agents who are capable of shaping rather than solely responding to their environments" (Brown & Lent, 2008, p. 505). In a GOAL, this means that educational actors need to construct and share with young people:

- a clear vision of the contemporary world and its (sometimes paradoxical) expectations,
- their understanding of the needs and resources of the new generation,
- as well as an explicit description of the skills and knowledge that they will have to acquire to become self-directing and learn throughout their lives.

Concretely, they need to provide opportunities for learners to transform their capacity to act in power to act (Rabardel, 2005) so that they do not solely adjust to satisfy the needs of the professional world, but they direct their actions to build a collective consciousness of the global challenges supported by values of justice, equity, social and environmental responsibility.

One of the first challenges for educational actors is to construct a clear representation on the expectations formulated by organizations and companies, to actively question their moral and ethical nature. Indeed, in a world accumulating several crises (Guichard, 2008), companies and organizations are also expected to tackle uncertainty and unpredictability in the workspace. This is why, latest reports highlight the need to train workers that are agile, resilient and that have lifelong learning skills (Berger & Frey, 2016; ManpowerGroup, 2018; World Economic Forum, 2016, 2018). These reports draw attention to the growing mismatch between current workers' skills and required qualifications for their jobs. For these reasons, organizations and companies are encouraged to search and train candidates that:

- can learn autonomously rather than candidates that have appropriate knowledge in their field;
- can assess and identify their needs in terms of professional development (especially concerning digital skills);

are effective and efficient digital leaders and learners (Bouchet, Bertacchini, & Bénet, 2016; ManpowerGroup, 2018; World Economic Forum, 2018).

In parallel, organizations and companies are encouraged to invest in "workforce reskilling" and to create innovative ecosystems that facilitate sharing and dissemination of knowledge instantly (Bouchet et al., 2016; ManpowerGroup, 2018; World Economic Forum, 2018). In fact, society at large should adopt a new image of the 21st century worker who is creative, curious, flexible, ambidextrous, reactive, networks, adapts to change and learns continuously (Bouchet et al., 2016; World Economic Forum, 2018).

These ambitions comprise many risks for the future generation that will need to manage these expectations while ensuring that they benefit from decent work conditions and environments (Pouyaud, 2016). This requires skills to deal with "digital invasion" (and work invasion) in the private sphere, to ensure well-being and identify negative stress that can lead to burn-out and to foster a collective sense of well-being at work. Especially when we see that young people in France for example have already internalized companies' request and are ready to relocate to answer these needs (Fanon & Laurenceau, 2017). It is our duty to equip the future generation with skills and tools that will help them think and reflect on their worklife balance, as well as decent work conditions that will contribute to their professional and personal development.

Sustainable development goals, especially those on decent work can act as a safeguard for citizens, providing that they are implemented by governments. However, one must bear in mind that they represent an additional load to current expectations towards young people. Indeed, a list of complex competencies has been identified as crucial to achieve sustainable goals, they include (UNESCO, 2017, p. 10):

- Systemic analysis of complex systems and their relationships,
- Anticipatory competency to create, anticipate and assess visions of the
- Normative competency to understand, analyze norms, values and principles related to sustainable and ethical development,
- Strategic competency to "collectively develop and implement innovative actions",
- Collaboration competency to learn and respect from different perspectives and deal with conflict,
- Critical thinking competency to question norms, practices, opinions and
- Self-awareness competency to reflect and assess one's role in the local community and society,
- Integrated problem-solving competency to conceive and apply sustainable solutions to complex problems by combining the above-mentioned skills.

Can the new generation live up to these expectations and be the "super generation" that society awaits?

The new generation

Studies led by Think Tanks such as "New Paradigm" find that teenagers nowadays have more potential than ever: they are more conscious of ethical, ecological and security issues (Tapscott, 2009) and are far from the negative image that describes teenagers as web addicts, narcissistic and ignorant (Bauerlein, 2009). Some authors consider the new generation as autonomous, efficient and innovative (Berkup, 2014; Singh & Dangmei, 2016). According to Don Tapscott (2009) this global generation of teenagers, shaped by the digital world, will exert influence beyond the frontiers of their own countries. And, chances are high that teenagers from China and India will have more influence than those of the United States or Europe, since their population is more important. In the survey carried out by New Paradigm (Tapscott, 2009), eight common "norms" have been identified by teenagers of eight different countries: freedom, customization, scrutinisation, integrity and openness, entertainment and play, collaboration and relationship, speed, innovation. However, one can question to what extent these norms reflect teenagers from different socio-economic background as one of the conditions of participation in the survey was the internet access. Moreover, the study, financed by private companies, clearly conveys an intention to identify the new generation's values to target future consumers.

This idealist portrait of the new generation is balanced by other studies that note the impact of societal change such as recession, terrorist attacks and population displacement on teenagers' lives (Mortimer & Larson, 2002), in particular those coming from underprivileged backgrounds. Studies realized on young people integrating the job market (18 to 34 years old) in Belgium, show that they are worried about the impact of the different crises on their integration and life conditions (Tritiaux & Pieters, 2009). And studies carried out on health conditions show that new generations are more inclined to stress and anxiety, especially girls (Bor, Dean, Najman, & Hayatbakhsh, 2014). Moreover, a growing number of children in Europe are at risk of social poverty and exclusion, also in developed countries (Save the Children, 2016). Both positive and negative aspects of the new generation need to be considered and integrated in career guidance educational interventions as they can be used as resources and as motivational cues to develop career guidance skills.

¹ The research was conducted with more than 7,000 young people aged 13 to 20, mainly from the United States and Canada, but also from the United Kingdom, Germany, France, Spain, Mexico, Brazil, Russia, China, Japan and India.

Designing educational tools to empower adolescents in the career guidance process

If the objective of career guidance education interventions is to develop pupils' ability to understand and structure society and to make reflexive choices, our role as educational researchers is to provide professionals and pupils with relevant and effective tools that will contribute to the empowerment of each adolescent. In line with the social cognitive theory developed by Lent, Brown & Hackett (Brown & Lent, 2008; Lent, 2008; Lent et al., 1994) we perceive career guidance as a learning experience, or rather a construct of several and diverse learning experiences that draws from existing resources and knowledge (self-knowledge, knowledge of the school, of the professional environment, and knowledge of contextual influences) in order to identify and develop personal and social interests in context. Each learning experience is intended to enhance one's self-efficacy beliefs that will help him or her reconsider developmental perspectives and identify ways and areas to act concretely on his or her future and contribution to society. In line with those educational objectives, learning situations need to be planned to bring awareness on the personal and contextual characteristics at play in the process. Personal characteristics refer to personal interests, values, skills and knowledge, but also one's identity models (cadres identitaires subjectifs2), challenges and needs in terms of career guidance. Contextual characteristics refer to knowledge about the professional environment, the job market, the potential trainings and careers, but also, knowledge about what decent work means, what are the company's interests, the 21st century challenges, the job skills required in the future, etc. Learning situations needs to include those different elements and encourage pupils to produce new knowledge on and about the skills and knowledge gained that will contribute to self-realization, but also to analyze and consider the influence of those different characteristics on decision-making (Loisy & Carosin, 2017). In order to conceive relevant and effective educational tools that support the implementation of GOAL in the schools, we have identified specific actions that can contribute to the analysis of existing knowledge about the self, the context, the school and professional environment and the construction of new knowledge and skills that will contribute to the career guidance process. The framework presented in Figure 2 is based on the social cognitive theory model developed by Lent (2008) and synthesizes the major components described hereafter.

According to Guichard and Huteau (2007), each person develops within a subjective and complex identity frame that includes different elements from cognitive frameworks associated with specific jobs, groups, social categories, etc.

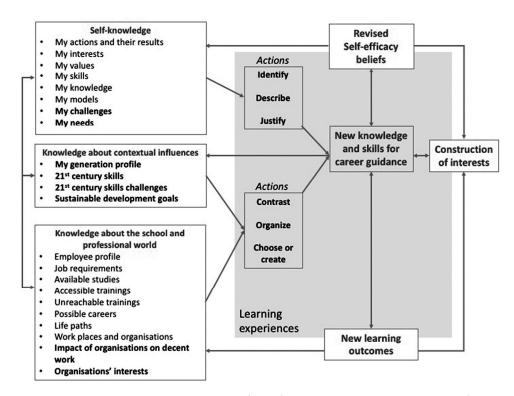


Figure 2. Learning experience in career guidance (Carosin, Loisy & Canzittu, in press)

The adolescent is engaged in a process that goes in two directions: the world and the self. On one side centration on the self is necessary to identify, describe and justify personal characteristics and needs, on the other side decentration is necessary to contrast, organize, choose or create opportunities that are available or not in the school world and in the future workplace.

The first set of skills is directly linked to processing information about the self and gaining awareness of one's actions and results, interests, values, skills, knowledge and models, but also one's challenges and needs. We believe that learning situations must help pupils identify their personal characteristics, that is helping them perceive them, as in the Latin root "perceptio" that is "the action of seizing with the mind3" of "taking cognizance of4". Once those characteristics are identified, they can be described and justified in respect to the contribution they can bring to the career guidance process. In other words, what are the personal characteristics that are relevant and which I can use to orient myself to design my life and which ones are missing according to my ambitions and projects.

³ Our translation from www.cnrtl.fr.

⁴ www.etymonline.com

The second set of skills must allow pupils to contrast available knowledge on the societal context (including representations of the new generations, so-called twenty-first-century skills, twenty-first century challenges and sustainable development goals), as well as knowledge on the school and the workplace in terms of training, possible careers, life trajectories, workplace environments, employee profiles, but also companies and organizations' interests and the impact they have on decent work. Contrasting includes assessing and opposing knowledge on contextual characteristics in order to organize and master them. This process of comparing characteristics, looking for new or counter evidences, understanding the perspectives from which they stem contributes to critical thinking as a means of questioning the world around (Favre & Rancoule, 1993).

Learning situations that mobilize existing knowledge and invite pupils to construct new knowledge and representations contribute to grasping existing knowledge and empower them to understand, analyze and criticize it in regard to their career guidance needs. In this sense, the career guidance process can transform the adolescent who will build new self-representations and eventually reconsider his or her self-efficacy beliefs, his or her learning outcomes in the light of personal and contextual characteristics (Loisy & Carosin, 2017). The process can also contribute to transforming society as the teenager will construct new knowledge on the school world and the workplace. The whole process is contextualized as the adolescent is invited to reflect on the influence that contextual characteristics have on both one's development and society's development. Moreover, this process contributes to the development of some essential skills, such as systems thinking competency and anticipatory competency, identified by UNESCO (2017) to tackle twenty-first-century challenges.

Tools developed by our team for psycho-medico-social centers in Belgium⁵ aim to contribute to this process, notably by addressing gaps in knowledge about the future of the workplace, the 21st century challenges and the particularities of the young people today. The pedagogical tools developed focus on one particular aspect that is central to teenage interactions nowadays: videos and images. Our intention is to bring awareness concerning the "visual culture of the web" that acts as a form of social currency (Martix & Hodson, 2014) and to empower teenagers to act and react on the media content they are exposed to every day. The methodology used to design the visual pedagogical tools draw on four pedagogical functions of educational technologies (Martin, 2012). The framework developed by Lee Martin (2012) consider learning as coordination between individuals, sustained by pedagogical tools (or artefacts), and is relevant to the challenges faced in educational context nowadays. The first function, "connection", poses that educational technologies must allow communication or information to pass between individuals. The second function, "translation", supports the communication by transforming

⁵ In Wallonia, in the French-speaking part of Belgium.

the information by using representations that can be understood and processed by the pupils, for example by using analogies. The third function, "off-loading", must allow the pupils to free themselves from some cognitive load to be able to perform the task and acquire knowledge. The fourth function, "monitoring", involves gathering feedback from the pupils to assess their current knowledge state and also contribute to communication between different groups of pupils.

The first set of pedagogical tools addresses changes in the career guidance process during the past years. The objective is to put in perspective the evolution of career guidance to bring awareness on the different opportunities that are available today (especially to girls). In other words, to provide a learning situation where pupils can contrast the characteristics that determined career choices in the past years and nowadays and choose which one they find relevant for their career guidance process (see lower part of the conceptual framework in Figure 2). In the pedagogical scenario designed, teachers start by showing an animated video of a young girl named Sasha⁶ who explains how her grandfather followed the steps of his ancestors and her grandmother stayed at home as her husband did not allow her to work (in Belgium, wives had to ask husbands for permission to work until 1958). Sasha explains how her mother was advised to be a secretary while her brother became a lawyer although they both had good grades in French and history. She explains that there are still some gender inequalities in wages nowadays but that young people have more choices and that they will also face other challenges due to the rapid evolution of society. This analogy, although caricatured, is a concrete example of the translation function recommended by Martin (2012) and is intended to provoke debate between pupils about changes in career guidance and education. At the end of the activity, pupils are invited to view the videos at home with their parents and ask questions such as: What was your dream job when you were my age? Why did you change (or not) ideas afterwards? And what would you like me to be careful about in my education and career choices? Another class activity can be performed to contrast the different answers and discuss on how parents' perception can influence one's educational and career choices. By making the video available to teenagers online, connection and off-loading functions (recommended by Martin, 2012) are ensured as adolescents do not have to explain the career guidance evolution process to their parents and can solely focus on the discussion and determining with their parents what they think is important for their career guidance. Finally, the monitoring function highlighted by Martin (2012) is covered when teenagers are invited to share and discuss the answers gathered at home and reflect on their influence.

The second set of tools addresses the challenges of the twenty-first century, it comprises a board game and an animated video for teachers. The objective is

⁶ Although the adolescents' discourse is impersonated by a girl, we have chosen a unisex and multicultural name to favor identification.

to initiate pupils to sustainable development goals (SDGs) set by the United Nations, as well as skills and actions that can be implemented to contribute to these goals at the level of the class. Tools are designed to provide knowledge on contemporary contextual influences and help pupils contrast and sort the different options available and choose the ones they find more relevant for their future and the future of society. To prepare for the activity, teachers are invited to watch the animated video on the challenges of the twenty-first century for the workplace and for society at large, and to understand the sustainable development goals. In class, teachers guide pupils to play the board game created by our team. In the game, teams explore four different fictive future worlds according to the answers they choose to tackle each sustainable development goal at class level. The connection and translation educational function lies in the transformation of issues related to sustainable development goals in fictive class project situations. At the end of the game, the whole class discusses the fictive worlds explored during the game and whether they correspond to the values they want to promote in society.

The third set of pedagogical tools addresses knowledge about the self via ideas conveyed in the profile of the new generation. The learning situation is designed to present different characteristics of the new generation conveyed nowadays and to help children reflect on them in order to identify, describe and justify which ones they find relevant and accurate. An animated video presents the profile of the new generation and sensitizes them on what adolescents need to design their life, that is to ask for understanding professionals that help them analyze and make sense of their past, present and future in order to design a life that is coherent with their needs and the roles they want to play in society. The adolescents work in small groups to conceive posters where they define their own profile and values. At the end of the activity, the teacher facilitates a class discussion where different posters are compared, and pupils are invited to justify the elements included, excluded or added. The educational functions recommended by Martin (2012) are once again covered by the video (connection and translation function), the poster elements that allow teenagers to discuss on the important values rather than try to remember each one of them (off-loading function) and the class discussion that connects the different groups (monitoring function).

In general, the visual pedagogical tools developed support learning situations that actively involve adolescents but also enhance communication with their teachers and eventually parents around their career guidance process. Moreover, most of the activities' outcomes can be shared to a broader audience online, thus extending pupils participation beyond the school, and eventually contributing to building a global community of adolescents engaged in their career guidance process.

Conclusion

The framework presented establishes clear links between personal development and society development by identifying skills that teenagers can develop to actively engage in both ways. As a result, career guidance while being focused on individual development is also closely linked to the empowerment of teenagers as future active citizens that will collectively work towards the common good. As recommended by the UNESCO (2017), our educational ambition is not only to convey current norms but to equip adolescents with skills that will help them analyze norms critically. Knowledge about the self, the school world, the professional environment and contextual influences are transformed and delivered to teenagers through means that are intelligible and that form part of their culture. However, they are not considered as interactive superficial consumers (that like or share) but rather active co-creators of original content that will empower them to creatively solve problems in the twenty-first century (Roméro, Lille, & Patiño, 2017), including the problems encountered in their career guidance and path. Educational actors and the educational community are invited to support the career guidance process by demonstrating connectedness and knowledge, but also by encouraging them to think critically about the issues that arise in career guidance in the twenty-first century.

References

- Arulmani, G., Bakshi, A. J., Leong F. T. L., & Watts, A. G. (2014). The manifestation of career. In G. Arulmani, A. J Bakshi, F. T. L. Leong & A. G. Watts. (Eds.), *Handbook of career development: International perspectives* (pp. 1-10). New York, USA: Springer International. doi:10.1007/978-1-4614-9460-7_1
- Bandura, A. (1998). Self-efficacy: The exercise of control. In *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). San Diego: Academic Press. doi:10.1002/9780470479216.corpsy0836
- Bauerlein, M. (2009). *The Dumbest generation: How the digital age stupefies young Americans and jeopardizes our future.* New York: TarcherPerigee.
- Berger, T., & Frey, C. B. (2016). Structural transformation in the OECD: digitalisation, dein-dustrialisation and the future of work. *OECD Social, Employment and Migration Working Papers*, (193). doi:10.1787/5jlr068802f7-en
- Berkup, S. B. (2014). Working with Generations X and Y in Generation Z period: Management of different generations in business life. *Mediterranean Journal of Social Sciences*, 5(19), 218-229. doi:10.5901/mjss.2014.v5n19p218
- Bor, W., Dean, A. J., Najman, J. M., & Hayatbakhsh, R. (2014). Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australian and New Zealand Journal of Psychiatry*, 48(7), 606-616. doi:10.1177/0004867414533834
- Bouchet Y., Bertacchini Y., & Bénet D., (2016). L'entreprise du 21ème siècle résiliente et ambidextre, le numérique comme hypothèse de travail. *R2IE: La Revue Internationale d'Intelligence Économique*, 8(2), 83-94.

- Brown, S. D., & Lent, R. W. (Eds.). (2008). *Handbook of counseling psychology*. New Jersey: John Wiley & Sons Inc.
- Carosin, E., Loisy, C., & Canzittu. D. (in press). Accompagner les adolescents pour faire face aux défis du 21ème siècle: un cadre conceptuel pour le développement d'outils en orientation. Penser et agir l'orientation au 21e siècle. De l'élève au citoyen engagé.
- Canzittu, D., & Demeuse, M. (2017). *Comment rendre une école réellement orientante?* Louvain-la-Neuve: De Boeck Supérieur.
- Comtois, M. (2007). Le portfolio orientant. Montréal, Québec: Chenelière Education.
- Conseil de l'Education et de la Formation. (2001). *Avis 78*: *Orientation et information sur les études, les formations et les métiers*. Bruxelles. Retrieved from http://www.cef.cfwb.be/index.php?id=4260#
- Danvers, F. (2009). S'orienter dans la vie, une valeur suprême ? Essai d'anthropologie de la formation. Villeneuve-d'Ascq: Presses universitaires du Septentrion.
- Demeuse, M., & Lafontaine, D. (2005). L'orientation scolaire en Communauté française de Belgique. *Revue internationale d'éducation de Sèvres*, 38, 35-52.
- European Commission. (2010). Europe 2020: A strategy for smart, sustainable and inclusive growth. Brussels. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52010DC2020
- Fanon, C., & Laurenceau, J. (2017). *Gen Z rising*. Retrieved from https://www.accenture.com/_acnmedia/accenture/conversion-assets/dotcom/documents/local/fr-fr/pdf_6/accenture-strategy-workforce-gen-z-rising-pov-fr.pdf
- Favre, D., & Rancoule, Y. (1993). Peut-on décontextualiser la démarche scientifique? [Can the scientifical processes be decontextualized?] *Aster*, *16*, 29-46. doi:10.4267/2042/8575
- Fernández-Sierra, J. (1999). L'orientation professionnelle intégrée dans les programmes scolaires : de la socialisation à l'éducation [Professional guidance integrated in school curriculum : from socialization to education]. *L'orientation scolaire et professionnelle*, 28(2), 325-340.
- Gingras, M. (2007). La contribution de l'approche orientante au développement des compétences (dossier Québec). *Les cahiers pédagogiques*, 499.
- Gingras, M. (2008). L'École en chantier: une voie de solution novatrice pour le développement de l'approche orientante. Bulletin d'information continue de l'Association québécoise d'information scolaire et professionnelle (AQISEP), 27(1), 1-16.
- Guichard, J. (2007). Orientation professionnelle (vocational guidance, career counseling). In J. Guichard, & M. Huteau (dir.), *Orientation et insertion professionnelle. 75 concepts clés* (pp. 307-315). Paris: Dunod.
- Guichard, J. (2018). Quelles interventions d'accompagnement à l'orientation pour contribuer à un développement humain durable et équitable? Présentation réalisée dans le cadre de la Chaire Francqui 2017/2018 à l'Université de Mons. [PrésentationPower Point].
- Guichard, J., Forner, Y., & Danvers, F. (2000). Les services d'orientation scolaire et professionnelle en France. Contribution à l'étude coordonnée par Watts, A.G. et al. pour la Comission des Communautés Européennes, cité dans Blanchard, Serge. Le conseil en orientation: introduction. *L'orientation scolaire et professionnelle*, 29(1), 3-26.
- Guichard, J., & Huteau, M. (2006). Psychologie de l'orientation. Paris: Dunod.

- Huteau, M. (2007). Orientation scolaire (high-school students'selection and distribution, school and career counseling). In J. Guichard, & M. Huteau (dir.), *Orientation et insertion professionnelle. 75 concepts clés.* (pp. 316-323). Paris: Dunod.
- Lent, R. W. (2008). Une conception sociale cognitive de l'orientation scolaire et professionnelle: considérations théoriques et pratiques [A social cognitive approach to career development: Theoretical and practical considerations]. *L'orientation scolaire et professionnelle*, *37*(1), 57-90. Retrieved from http://osp.revues.org/1597
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice and performance. *Journal of vocational behavior*, 45(1), 79-122. doi:10.1006/jvbe.1994.1027
- Léon, A. (1957). Psychopédagogie de l'orientation professionnelle. Paris: PUF.
- Loisy, C., & Carosin, E. (2017). Concevoir et accompagner le développement du pouvoir d'agir des adolescent.e.s dans leur orientation [Supporting the empowerment of teenagers in their vocational education]. *L'orientation scolaire et professionnelle*, 46(1). doi:10.4000/osp.5332
- ManpowerGroup. (2018). Skills Revolution 2.0.
- Maree, J. G. (2015). Career construction counseling: A thematic analysis of outcomes for four clients. *Journal of Vocational Behavior*, 86, 1-9. doi:10.1016/j.jvb.2014.10.001
- Maree, J. G., & Che, J. (2018). The effect of life-design counseling on the self-efficacy of a learner from an environment challenged by disadvantages. *Early Child Development and Care*, 1-17. doi:10.1080/03004430.2018.1495629
- Martin, L. (2012). Connection, translation, off-loading, and monitoring: A framework for characterizing the pedagogical functions of educational technologies. *Technology, Knowledge and Learning*, 17(3), 87-107. doi:10.1007/s10758-012-9193-6
- Martix, S., & Hodson, J. (2014). Teaching with infographics: practising new digital competencies and visual literacies. *Journal of Pedagogic Development*, *3*(2). Retrieved from http://hdl.handle.net/10547/335892
- Mortimer, J. T., & Larson, R. W. (Eds.). (2002). The changing adolescent experience: Societal trends and the transition to adulthood. Cambridge University Press. doi:10.1017/CBO9780511613913
- Organisation for Economic Co-operation and Development [OECD]. (2015). In it together: Why less inequality benefits all. Paris: OECD Publishing. doi:10.1787/9789264235120-en
- Paul, J.-J., & Suleman, F. (2005). La production de connaissances dans la société de la connaissance : quel rôle pour le système éducatif ? [The production of knowledge in the knowledge society: What role is there for the educational system?] *Education et Sociétés*, 15(1), 19-43. doi:10.3917/es.015.0019
- Pelletier, D. (2004). *L'approche orientante : la clé de la réussite scolaire et professionnelle*. Sainte-Foy, QC: Septembre éditeur.
- Pouyaud, J. (2016). For a psychosocial approach to decent work. *Frontiers in Psychology*, 7. doi:10.3389/fpsyg.2016.00422
- Rabardel, P. (2005). Instrument, activité et développement du pouvoir d'agir. In P. Lorino (dir.), Entre connaissance et organisation : l'activité collective (pp. 251-265). Paris: La Découverte.

- Roméro, M., Lille, B., & Patiño, A. (dir.). (2017). *Usages créatifs du numérique pour l'apprentissage au XXI*^e siècle. Presses de l'Université du Québec.
- Save the Children. (2016). Ending Educational and Child Poverty in Europe. Retrieved from https://resourcecentre.savethechildren.net/node/10237/pdf/ending_educational_and_child_poverty_in_europe_02-12-2016.pdf
- Savickas, M. L. (2015). Life-design counseling manual. Vocopher.
- Schultheiss, D. E. P., & van Esbroeck, R. (2009). Vocational Psychology and Career Guidance Practice: An International Partnership. *The Career Development Quarterly*, *57*(4), 366-377. doi:10.1002/j.2161-0045.2009.tb00123.x
- Singh, A. P., & Dangmei, J. (2016). Understanding the Generation Z: The future workforce. *South-Asian Journal of Multidisciplinary Studies*, *3*(3), 1-6. Retrieved from http://sajms.com/volume-3-issue-3/understanding-generation-z-future-workforce/
- Tapscott, D. (2009). *Grown up digital: How the net generation is changing your world.* New York: McGraw-Hill.
- Tirtiaux, J., & Pieters, J. (2016). Génération Quoi. Autoportrait des 18-34 ans en Belgique francophone: Enquête réalisée en ligne de Mai à Juillet 2016. RTBF.
- UNESCO. (2017). *Education for sustainable development goals: Learning objectives*. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000247444
- United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Retrieved from https://sustainabledevelopment.un.org/post2015/transformingourworld
- World Economic Forum. (2016). The Future of jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf
- World Economic Forum. (2018). Towards a reskilling revolution: A future of jobs for all. Retrieved from http://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf