EMPOWERING STUDENTS' AWARENESS FOR A PERSONALIZED CAREER DEVELOPMENT

An Approach to Discover, Experiment, and Learn

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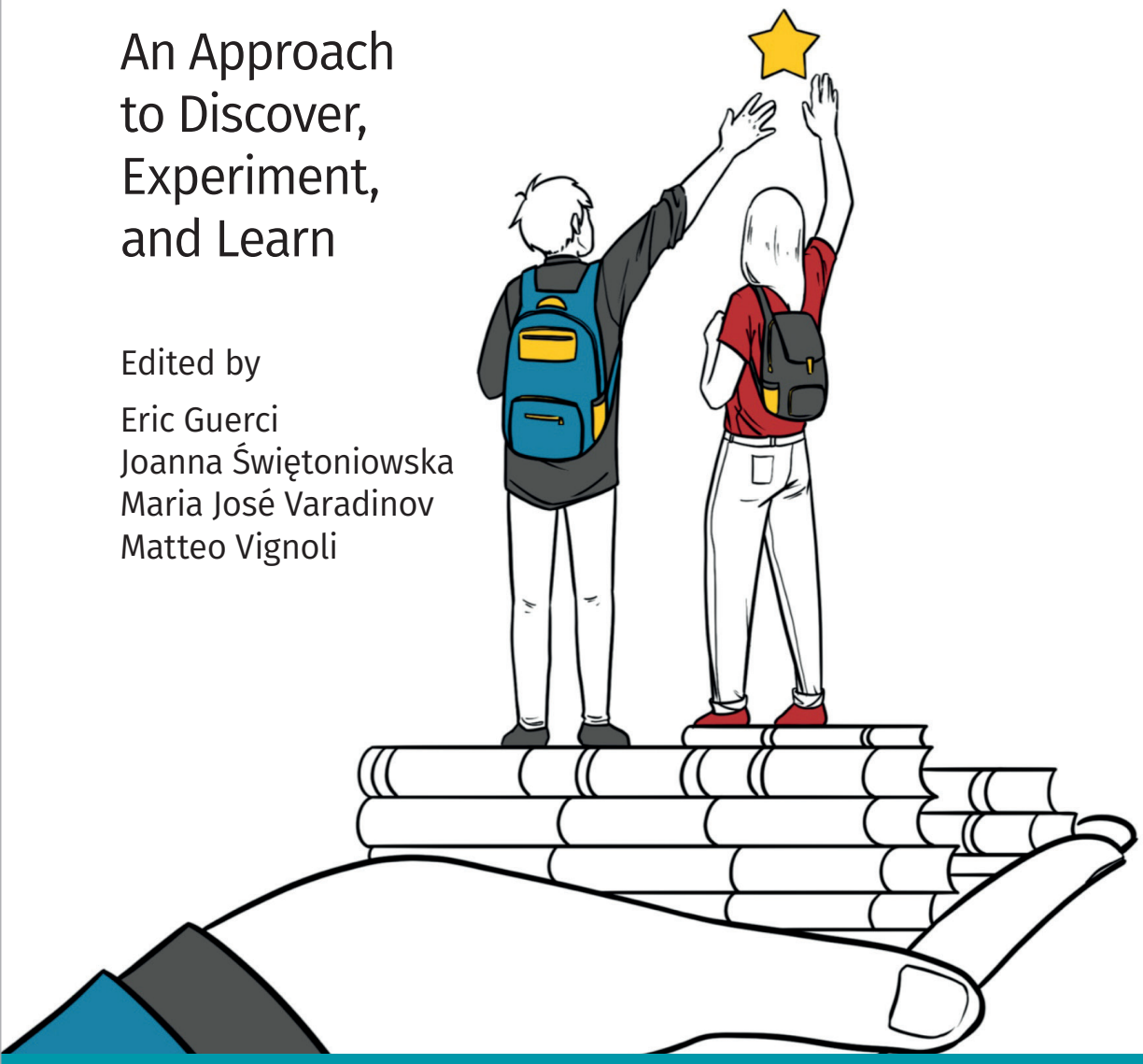
Matteo Vignoli



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Introduction

This book is for university administrators, professors, and career specialists, and it provides them with a comprehensive introduction to the BE(A)ST (BE Aware STudent) approach. The BE(A)ST approach aims at enhancing students' awareness of personalized career development, fostering a connection between their identity, beliefs, and actions to support career awareness. Career awareness is the process of being aware of several career pathways or professional alternatives accessible based on the interests of an individual (Wise et al. 1976). The main objective of the BE(A)ST approach is to provide a structured process consisting of a series of tools that leads university students to find what best fits their aspirations and possibilities before entering the job market. At the same time, since students are taking the BE(A)ST course or seminar while they are enrolled at the university, they can still change and modify their study plans.

The complexity of our fast-changing work environment requires more than merely informing students about career possibilities and matching the job market's demand. Career services are moving towards *career construction counseling* (Savickas 2005), where each individual is conceived of as unique and needs to design his own unique career path. Some universities are thus moving forward from the classical career orientation tools – such as career fairs and career coaching – to specific courses that support students in their career design process. Stanford University, for example, has a two-unit course where students inquire about career-related questions through the lens of design thinking, with a *Designing Your Life* (Burnett et al. 2016) approach. Nova University in Lisbon has a two-credit course where students develop career management skills with *Business Model You* techniques. Since we are now talking about career preparedness, adaptability, and coping, and recognize that proactive career behavior (e.g., career exploration) is

an antecedent (and not only a consequence!) of one's future work self (Guan et al. 2017), a validated course that supports the identification of one's passion and encourages career exploration and experimentation is a needed addition to the assets a university can provide to its students. BE(A)ST represents to date the most innovative methodology to support career design, as it integrates the business and design perspectives while supporting individualized career development by recognizing the specific needs of each student.

The BE(A)ST approach proposed here incorporates cutting-edge tools and practices from career literature, including some of today's most popular career design textbooks like *Business Model You* (Clark et al. 2012) and *Designing Your Life* (Burnett et al. 2016). The authors have performed several iterations of the approach through courses and seminars provided in different countries and learned many lessons and best practices concerning which tools are most suitable for different students and situations. The course allows students to understand their attitude toward the job market and personalize their career design experience with a selection of tailored tools.

The BE(A)ST approach, carried out as a course or seminar, expands universities' range of services in supporting students to take the next step in their professional lives, and can be a valuable asset for career counselors and higher education institutions. If you feel your university will support its students in a career design process, this book might be for you. Contact the authors for further support in integrating this approach in your school or university.

Personalized Career Development course at a glance

Origins and approach to the course design

The Personalized Career Development (PCD) course design is the result of three research programs: two Erasmus+ programs (BEAST and OMNI-BEAST) focused on the development of the method and one program funded by the Polish National Agency for Academic Exchange (Adaptation and Evolution D.Y.L. Methodology to Individualized Career Planning in Higher Education Institutions – DYLMIC), focused on its adaptation, scientific validation, and dissemination. The research programs involved six European partners from Poland, Italy, France, Greece, Spain, and Portugal. The approach design team ran six pilot programs from 2019 to 2022. Professors and researchers from those universities designed the BE(A)ST approach over four years of collaboration and iterations. This book will refer to them as 'approach design team' or 'design team.'

The BE(A)ST approach was developed with a human-centered focus on the needs of students, university administrators, and professors. The design team employed an action research method by intertwining academic research and

problem-solving. The methods included ethnographic research on students as well as prototyping efforts of multiple course options during six Personalized Career Development course pilots. The design team produced several versions of a course implementing the BE(A)ST approach in order to test which would be the best way to introduce it to a university context. To learn more about the methodology design of the course, refer to Chapter 3: Methodology.

Personalized Career Development course general guidelines

The Personalized Career Development course has been defined as a flexible format between 1 to 3 ECTS (25 to 75 hours), however, we suggest implementing the 3 ECTS version with 30 hours of lectures in workshop format and 45 hours of homework and project activities spread out over one semester. The course should be integrated into the university curriculum and taken by university students from different disciplines. We are suggesting this format after testing various ones, including a weekend course and a week sprint, as students need time for their self-awareness to grow. Reflection activities to learn about themselves and reflexivity activities – as suggested in the exercises – to experiment with themselves (Savickas 2016) require time.

The course is beneficial for university students, especially for those who are starting to think about how their careers will develop once out of the university, and for this reason, we suggest using the Personalized Career Development program for Master's or second-year and above Bachelor's students.

We suggest allowing students from different disciplines to enroll in the course. The course has been tested with students from the same field (e.g., only IT students) and students from a mix of disciplines (e.g., management, marketing, engineering, and communication). Students appreciated multi-disciplinarity, especially for shared reflection activities with peers in the self-understanding phases. For this reason, we suggest – if possible – to ensure a mix of multiple disciplines, with a small cluster of students from similar disciplines (e.g., mechanical together with automation engineering students, arts together with humanities students). A PCD course can operate well for up to 30 students at a time.

The course can mix in-person and virtual classes, with the in-person portion consisting in the students interacting with peers and PCD teacher(s) to develop individual and group activities (in pairs or teams, up to five students per team). Different combinations of in-person versus virtual activities have been tested, and the PCD course designers have also tried a fully virtual PCD course version to prove that an entirely virtual course is possible. However, qualitative feedback from students has showed a higher course satisfaction when some reflection activities were held in person. For this reason, we suggest delivering some activities in person, especially those requiring shared reflection. In case you want to opt for

virtual classes, do consider that you need a teaching platform that supports you in creating sub-teams among the classes. Chapter 5 presents an in-depth course structure with the syllabus and learning outcomes.

Personalized Career Development course structure and tools

The PCD course starts by acknowledging that a 'generic' student is too broad a concept to be effective for career design. In our universities, we have many different types of students who have different needs in terms of fostering their awareness for career development. For example, suppose a student has clear ideas about her future career. In that case, it is more important that she tests them out (to protect the student from the idealization of a professional career) before she dedicates much energy to self-understanding, which is where a student who is confused about her future career might begin. This is a relevant contribution to the theory of career design: while scholars study how different career behaviors and attitudes affect career paths, to our knowledge, no university has designed ad-hoc career design courses for different students' attitudes toward their careers.

The book describes four student profiles (also called student types) that have emerged from our ethnographic research and have been validated during the course design. The four profiles are 'The Restless Who Takes the Risk,' 'Few Ideas, But Clear,' 'Diligent Performer But Confused,' and 'The Entrepreneurial.' Students' profiles are organized into the personalized BE(A)ST matrix across two variables: the student career proactivity (reflective versus active vis-à-vis job experiences) and student career clarity (confused versus determined about a future career). The profiles and matrix are presented in Chapter 4 (Table 4.2).

The design team has developed a survey instrument (or "scale") that students can take at the beginning of the course to assess their students' profiles. The scale has been statistically validated, and students reported identifying themselves in the resulting profile. With the identified student profile, the student can tailor her own path in the PCD course. In the PCD course, each student profile can benefit from a unique subset of 21 tools (and their potential designed variation). The different paths are presented in Chapter 4.

The PCD course comprises four stages: Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, Career Prototyping and Testing. In each stage, a selection of activities and related tools will accompany students in their career design process. Stages and tools are presented separately and later connected: each BE(A)ST stage has specific activities to implement during the course (Table 2.3 and Figure 2.2). Modules and tools are offered to support educators who want to replicate the PCD course in their universities.

The stages come from the double diamond design process outlined in *Designing Your Life* (Burnett, Evans 2016), as the PCD course considers career awareness

development a *wicked problem*. The Self-Reflection stage offers the students a chance to gain a deep understanding of their personal resources, needs, and expectations (passion, interests, values, and abilities). The Professional Identity Definition stage asks the participant to work toward defining his/her professional values and identity. The Career Scenarios Exploration stage provides students with tools to envision the future and create valuable career options. The Career Prototyping and Testing stage tests possible professional solutions with activities such as interviews with professionals embodying those professions, and forms of experimentation of the professional solutions, with direct (e.g., internships and shadowing) or indirect (e.g., reading or podcast listening) forms. To understand the phases, please refer to Chapter 2 for the description of BE(A)ST and Chapter 4 for insight into its usage in a university context.

BE(A)ST tools were selected and filtered from career design literature and practice to present only tools that an educator can easily apply in short activities with students. Out of the 21 selected tools, nine come from the book *Designing Your Life* by Burnett and Evans (2016), two from *Business Model You* by Clark et al. (2012), three from *ISMA 360°* by Dominique Vian (2013), and three from *Inteligência Emocional* by Moreira (2019). Other tools are adapted from other disciplines, like management (e.g., *Career Mind Mapping* and *Personal SWOT Matrix*) or decision science (e.g., *Decision Trees*). An educator willing to replicate the PCD course can find in Chapter 6 everything she needs to use each tool: instructions given to the student, examples, lessons learned, and pitfalls to avoid.

The course alternates classes and individual homework and projects. Classes present the rationale of the stages and introduce the tools, and individual or group activities (in pairs or small teams) follow. Homework consists of activities in which the students further experiment, reflect, or develop the activities. This structure minimizes interaction among PCD teachers and students and limits shared reflection in class to specific moments. This choice has been made because central university offices usually have a mere handful of experts compared to a large number of students.

What you'll find in the following chapters

The book is organized as follows. In Chapter 1, we provide an overview of the complex, changing future job market. We list the possible threats that volatility, uncertainty, complexity, and ambiguity bring to the career development process. To face this changing world, university offices, career professionals, and professors need to support students with both hard and soft skills.

Chapter 2 conceptualizes career awareness as a *wicked problem*, in the context of defining career development as "the interactive progression of internal career

identity formation and the growth of external career significance" (Hoekstra 2011, p. 159) but also referring to a series of changes that occur in an individual's career (Brown 2002). This conceptualization requires a shift from career planning to career design. This chapter offers an overview of traditional approaches to career planning and introduces the motivation and aims of the BE(A)ST approach.

Chapter 3 describes how we designed the PCD course, following our three-phase methodology that intertwines academic research and problem-solving. The three phases are i) BE(A)ST approach design (identification of tools, course structure, and course format); ii) identification of students' profiles and development of a validated self-assessment questionnaire for students' profile identification; iii) PCD course design, matching tools and profiles, and the following test in pilot courses.

Chapter 4 presents the possible applications of the BE(A)ST approach. We first present the PCD format, phases, and tools. We then show students' profiles, the student profiles assessment scale, and the different paths a student can take while involved in a PCD course.

Chapter 5 illustrates a detailed syllabus and course material to be used while introducing the course at a university. One can also find here the different scenarios of the Personalized Career Development course.

Chapter 6 introduces the BE(A)ST toolbox, addressing educators that want to replicate Personalized Career Development course in their universities. The chapter seeks to deliver practical information for BE(A)ST tools usage. The tools are presented by BE(A)ST stages, and alphabetically ordered.

In conclusion, we identify challenges that universities are facing in supporting the path of career design as a lifelong journey. With the BE(A)ST approach, we provide a solution to improve the alignment between the career and the life of our students in the framework of a VUCA world. We underline the potential of incorporating the BE(A)ST approach for universities and for the future of our students. This is only the starting point of our journey in supporting career counseling as future research avenues are presented.

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CHAPTER 1

New world of work – new challenges

Abstract
In an ever-changing world, people and organizations face a growing number of threats with increasing levels of volatility, uncertainty, complexity, and ambiguity. To face this reality, managers and specialists need to be armed with a set of soft and technical skills inherent to their jobs and positions. This reality is recognized by OECD, UNESCO, and others, with Higher Education Institutions increasingly embracing Social Responsibility concerns, job market views, new generation learning styles, and student perspectives on career planning.

Keywords: higher education institutions, soft skills, social responsibility, job market, learning styles, student perspectives

1.1 Understanding the challenges

Our world is changing faster than ever before, with great challenges like globalization and digital transformation happening transversally across the economy and society, revolutionizing the way activities are carried out. Likewise, competition is increasing significantly, and markets are becoming more open with high levels of integration/interdependence.

As a result, new products, services, processes, technologies, and legislation are also continuously changing at an increasing pace, with companies forced to innovate at all levels to survive and develop. In this context, additional challenges are contributing to the disruption of the ways in which people live and work, like climate change, global health concerns like pandemics, and the competition between new value systems, principles, ideologies, and governance systems.

To face these challenges, many paradigms in their initial developing phases are expanding rapidly and new paradigms are emerging constantly, such as new

solutions in artificial intelligence (AI), internet of things (IoT), big data, Industry 4.0, augmented and virtual realities, new materials, recycling, and circular economy, to name just a few. New trends and tools are expanding rapidly in management, sciences, culture, while old paradigms collapse, forcing people and organizations to constantly adapt their working practices.

We refer to the context described above as VUCA, referring to the need for a strategy of adapting to changes in various scenarios. Its acronym in English refers to four keywords:

- V) 'Volatility,' due to frequent changes.
- U) 'Uncertainty,' due to the unpredictable nature of events.
- C) 'Complexity,' due to the multiplicity of factors that can appear interconnected.
- A) 'Ambiguity,' related to the difficulty of understanding complex and unclear situations.

Facing this hazardous context, companies/organizations need to reinvent themselves continuously, to face market changes in order to survive and develop over time.

Whatever the sector of activity under analysis (social, economic, or cultural), the resource that has the central responsibility to create, implement, and control solutions is always the same: people, through their work, regardless of the type/level of work/responsibility performed. Accordingly, with this generic framework, the following question arises:

What type of people and professions are most suitable for facing (and overcoming) the challenges inherent to a VUCA world?

On the basis of our research, we conclude that the most suitable are those who adjust their career throughout their life, developing both hard and soft skills. This is also a challenge for higher education institutions, as they need to move from a one-shot educational period to lifelong learning.

1.2 The European Union context: programs addressing the challenges

As we have seen before, several challenges affected the dawn of our century. They have brought a set of changes to Higher Education Institutions (henceforth HEI) (Varadinov, Cardoso, José, Marques, Guerra 2021) involving a major shift at the European level to include the twenty-first-century skills in academic programs across the board.

Firstly, we must highlight the collective contribution that is identified in *Horizon 2030* and that Akkari (2017) defines as the true agenda for education: that which mobilizes the main agents and actors of education systems, creating

a vision of consensus about the future. Along these lines, *Horizon 2030* manages to bring together studies on the challenges of education from UNESCO, namely the *Incheon Declaration* on inclusive, equitable, and quality education for all in a perspective of lifelong learning (UNESCO 2015), that should be combined with documents from the OECD (2018, 2019a, 2019b) and the World Bank (2018). All these institutions warn about the need to prepare students for the new social and labor market challenges, including the need to develop soft skills.

Education should equip students with the skills they need to lead healthy, productive, meaningful lives. Various countries define these skills differently, but all share some core aspirations that should be embodied in their curriculums. They require higher-order reasoning and creativity that builds on foundational skills, as well as socioemotional skills such as perseverance and the ability to work in teams.

The presently required competencies are intertwined with the need to be able to face new, unexpected situations, for which it is necessary to mobilize knowledge and skills, as well as the values and attitudes that were acquired during the studies. *Horizon 2030* brings to HEI the urgency of empowering students with these new tools so that they can think critically beyond traditional parameters. All this includes skills to carry out projects, implement actions, and insert all these points into strategic planning.

To face situations that cannot be anticipated, HEI must prepare their students and provide tools involving cognitive and meta-cognitive skills (critical thinking, creative thinking, learning to learn, and self-knowledge); social and emotional skills (empathy, personal effectiveness, and collaboration); and practical and physical skills (namely the use of information and communication technologies).

While working at this level, we also prepare students to use a set of values that include trust, motivation, virtue, and respect for diversity, which will be applied at different levels: personal, local, social, and global. We assume that education, as advocated by the OECD, should ensure more than just the knowledge or training required by the labor market. Higher education has another clear and fundamental mission: to prepare young people to become active, responsible, and committed citizens.

This OECD project establishes the coordinates of a common, dynamic, and flexible international curriculum, with a connection between topics and disciplines, in which the student can follow his/her learning path according to his/her skills and talents (Varadinov, Cardoso, José, Marques, Guerra 2021).

Pereira (2007) emphasizes that universities aim to train professionals with skills, abilities, and competencies to understand life and become an individual or collective actor characterized by active awareness, which means that teaching is both an educational and a social process. Pereira lays the foundation for cultivating the modern university's relationship to social responsibility, to remind us that universities need to teach students to analyze the present, but also to look to the

future. Therefore, the mission of universities must combine education with a sense of social responsibility (Pereira 2007).

Vallaeys (2009) argues that HEI influence the training of future professionals in terms of values and ethics which have an impact on social actions, so it is important to assess whether HEI carefully consider their actions, the way they train their students, and how they can positively affect the community and its development. It also highlights that HEI must create networks, connecting the values and mission of universities with an effective intervention in the environment that surrounds them. Moreover, it falls to them to look for solutions to problems and take concrete actions that combine the training of students with scientific innovation so that important knowledge is created for the good of the society. A Higher Education Institution must take into consideration that its mission not only involves the core activity of education but goes further in preparing people for the exercise of citizenship. It is crucial to develop students' flexibility to be aware and involved in different views of the world, as they can effectively learn to be socially responsible citizens.

1.3 Learning styles for a new generation

Higher Education Institutions must be up to date regarding social and cultural changes, as we analyzed before, but another major influence is modifying their policies. In fact, in a time when it is already quite difficult for people to imagine daily life, interactions, and relationships without the presence of digital technologies, it becomes relevant to discuss modern society. More and more people are connected and organized in social networks that communicate via smartphones or computers. The Internet creates a model of networked individualism, a structure that protects us and, at the same time, exposes us.

Individuals increasingly use technologies that over time have modified a large number of habits and forms of interaction by taking into account individual preferences. People are integrating technologies into their lives to be able to satisfy their needs and desires. In this context, schools and companies are currently facing the great challenge of navigating and managing heterogeneous teams shaped by the various characteristics of all the unique individuals involved. People who were born within the same period can have similar experiences that shape their world view, but can also differ greatly in their values, beliefs, and motivations about the businesses to which they belong and about their goals regarding their career and work behavior.

Commonly, in education classrooms, students and lecturers from the three generations (X, Y, and Z) share identical learning environments. Generally, baby boomers and Generation X teachers, educated by traditional modalities, aim to

train students, mostly from generations Y and Z, with learning designs and world perceptions that are altogether different.

Generation Y, also known as the Internet Generation, was born between 1979 and 1992 and was marked principally by the digital access to the means of consumption. This allowed them to be recognized for the work they have developed and maintain a constant balance between personal life and a skilled career, prioritizing what characterizes them as individuals who aim for professional success. Moreover, they grew up in contact with technology, are more individualistic and readily defend their opinions. Generation Y students tended to demand from the teacher displays of proximity [and equality?], and in general refused any hierarchy. With the introduction of the latest technologies within the classroom, their learning was characterized by a balance of interaction, sharing, and the rise of brand-new data or observations (Smola, Sutton 2002).

The milestone that characterized this group was the advent of data technology (above all, the expansion of the Internet, social networking sites, and virtual games). Once they are connected to the virtual world, mastering the technological tools they have had since childhood, this generation brings a new culture, and a new dynamic to behavioral patterns. The professionals of this cluster represent the youngest section active in the present labor market, and they're represented as being more socially active than the previous generation, with a preference for operating in corporations that set themselves as a reference point in terms of ethics and social responsibility. This could be the most connected generation yet. Whether via PC or cell phone, they access social media, email, and text messages frequently. As a result, they have grown up in an environment with a huge amount of data available and are more tuned in to all the problems in the world than any preceding generation (Vrabie 2015).

Known as the 'Silent Generation,' the members of Generation Z include people who were born between 1990 and 2010. Generation Z are the most natural users of the Internet as a result of its prevalence – indeed, omnipresence – when they started writing. With the emergence of smartphones during their youngest years, it feels natural for them to be 'online' and their newsfeed diet results in them often being anxious concerning the environment and social responsibility. This generation has grown up with computers and smartphones. Being hyper aware of all the types of communication that offer them the feeling of involvement, they have the impulse to actively participate, give feedback, and feel useful. This group's attention span is even shorter than that of preceding generations, with most of them giving an average of eight seconds to any given communication. It is noteworthy that this generation has a superb capability for interactivity. In other words, they engage in many activities at the same time. Their relationship with employment remains unclear, however, as these individuals have difficulties with traditional school structures and interpersonal relationships. Generation

Z students need varied pedagogical proposals which take into account that the technologies are extensions of the brain and body. In addition, the teacher should be connected through social networks and technologies to be able to post and clarify content (Christensen, Eyring 2011).

Thus, the learning styles adopted by generations X and Y are characterized by their preference for brevity in the acquisition of information, which conjointly includes the accuracy of this process. This can lead these students to a dependence on the utilization of electronic tools. The blending of generations in cultural and technological heterogeneity brings pedagogical challenges and sparks discussions concerning the characteristics of the educational methods, considering that each generation possibly has different ways of understanding and transmitting information (Christensen, Eyring 2011).

The activity patterns of students from Generation Y demonstrate the predominance of resilience with the power to beat the constraints imposed by previous generations. Generation Z uses technology as an extension of their bodies, permitting the execution of many activities at the same time and requiring differentiated pedagogical proposals supported by technological mechanisms (Benamati, Lederer 2010).

The new paradigms in education indicate that schools ought to have the ability to assess issues and obtain solutions, discuss concepts, and propose new theories, be more influential and accountable, and be able to quickly adapt to societal changes.

The teachers' and students' roles have also changed. Teachers have to act as facilitators in the teaching-learning process, besides participating in coaching programs, updating their knowledge, and adapting to the new technologies that are at their disposal. With the expansion of communication technologies within the teaching and learning process, relationships have also been transformed. On the one hand, the presence of different generations in the same environment creates diversity, integration, and knowledge; on the other hand, it could lead to imbalances and conflicts, insofar as each generation establishes a particular relationship with its environment.

One of the simplest challenges within these contexts nowadays is to align generations so that each one is engaged in the same purpose. The educational preferences attributed to generations X and Y maintain the requirement for the use of Internet resources; however, they are allied in their preference for interactive models of education in favor of reducing ineffective time in analysis. This connects them to specific resources and therefore develops crucial thinking and analysis capacity, necessities that guarantee success throughout the research and learning process (Rhode 2009).

Success is crucial not only in HEI but also in the labor market, when the students initiate their careers. In fact, the characteristics of the students who belong to the most recent generation show that employers will be hiring a new

type of employee. Furthermore, the job market has also been affected by the social, cultural, and technological shifts we have been highlighting, so this new set of challenges must also be addressed.

1.4 New challenges from the labor market

As stated, some of the most important economic trends in the world include the Industry 4.0 revolution and the digital transformation of enterprises accelerated by the COVID-19 pandemic. Both trends fundamentally change the nature of work, the way business is conducted, and society itself (Hirschi 2018). The digital era brings new professional challenges and opportunities. The rapid growth of digital transformation and the massive amount of digital data present significant challenges to all who will enter the labor market in the near future, as well as those who will be changing jobs (Tsui 2018).

Companies in the digital age need a well-prepared workforce that can continuously develop new skills and is able to meet the challenges of an increasingly unpredictable environment. The *Future of Jobs* report (WEF 2016) has shown that by 2020, more than one-third of the desired skills in the job market will be ones that were not considered essential in the past. More surprisingly, 65% of today's young people will be in occupations that have not yet been developed (Karacay 2018). In the US, according to the Bureau of Labor Statistics (BLS), the average number of lifetime jobs among baby boomers is 12, according to a 2019 survey (US Bureau of Labor Statistics 2020).

Not only are the profiles of the HEI and the students changing, but the labor market that is going to receive them is also in flux. The OECD predicted that by 2019, 14% of existing jobs could become fully automated (OECD 2019c), and automation continues to spread. It is predicted that by 2025 the number of hours worked by machines and humans will be roughly the same. Some 85 million jobs are expected to be replaced by automation, mainly those involving manual or repetitive tasks (WEF 2020).

The *Future of Jobs* (WEF 2020) report also predicts the emergence of 97 million new jobs by 2025. The most sought-after positions in future job markets include data scientists and analysts, AI and machine learning specialists, robotics engineers, software and application developers, digital transformation specialists, information security analysts, and IoT specialists, which can be broadly grouped into the ten emerging job clusters explored in the report.

Alongside technological development, we are also witnessing the emergence of alternative work models (temporary, freelancers, etc.), cultural changes resulting from the generational divide, and a growing focus on the development and evolution of professional skills (Deloitte 2021). Thus, the future of work should be reflected in three dimensions: work, workforce, and workplace.

The labor market needs to reinvent itself by initiating a successful digital transformation that cannot consist exclusively in the adoption of new technologies but involves the challenging component of reskilling and adapting people to new ways of working. In a new labor market reality, it is also necessary to invest in the development of results-oriented behavioral skills, including the training of people for teamwork and project context, but also for work models with greater autonomy, remote team management, and individual accountability. This new reality will also demand greater flexibility from employees to take on extra functions.

The new labor markets will require a combination of soft and hard skills (WEF 2020). The following ten skills are considered to become the most important by 2025:

- analytical thinking and innovation
- active learning and learning strategies
- complex problem-solving
- critical thinking and analysis
- creativity, originality, and initiative
- leadership and social influence
- technology use, monitoring, and control
- technology design and programming
- resilience, stress tolerance, and flexibility
- reasoning, problem-solving, and ideation.

The *Future of Jobs 2020* report (WEF 2020) is a call to action to accelerate a reskilling revolution in economies. It highlights the growing urgency to support displaced and at-risk workers as they navigate toward the 'jobs of tomorrow.' The current moment offers an opportunity for business, government, and public policy leaders to focus common efforts on enabling workers to thrive in the new economy. In short, the concepts of work, workforce, and workplace are not crystallized and may continue to evolve (Deloitte 2021).

The modern labor market has the following main characteristics: high unemployment rate, an imbalance between supply and demand in the labor market of young employees, social and professional uncertainty felt by the youth, employment not within their specialty, and gender inequality. The global youth labor market faces some problematic trends, like the active informatization of business processes impacting the rising unemployment figures, the difficulties in motivating Generation Z, and the low interest among young people in working in the real sectors of the economy (production, agriculture, etc.), young people's preference for remote work (as freelancers), and the spread of a phenomenon of people who want neither to work nor to study (Mizintseva et al. 2017). However, young people are one of the most promising groups in the working-age population, due among other reasons to the fact that they have flexibility, the ability to study quickly, and easy mobility across the world, mainly in the EU countries.

A survey developed by Mizintseva et al. (2017) has identified the trends and problems in the labor market felt by young people: a significant percentage who do not plan to do the job they were trained for; the importance of informal communications in the job search; a lack of work experience as a frequently cited reason for refusing to employ students and graduates from modern universities; and insufficient wages offered to youth. These elements constitute serious challenges in HEI, because a more demanding labor market requires adequate curricula design and career planning, so that students can rapidly adapt to evolving circumstances, namely the need to have specific tools to undertake a career path.

Additional factors that make career planning difficult are the globalization of the economy, which means the need to compete with workers from other countries; this is especially evident in the digital industry. Employees are staying in the job market longer and longer, and the way they do their jobs changes very often, even within one profession. Social norms are also changing. The former model in which finding a relatively stable job is preceded by a period of education and followed by purchasing a home and starting a family has been replaced by a variety of individual development paths (Savickas et al. 2009). The individual is increasingly influential in the planning and executing of his/her career. Generation Y, for example, has brought new principles to corporations, such as flexible work schedules, more leave of absence, the issue of work-family balance, care for the environment, and many more (Andersen 2021). However, at the same time, the number of jobs has often been reduced. Many companies are hiring part-time or contract workers and using outsourcing services. Future employees should be able to define themselves not in terms of lifetime positions with specific companies, but rather their professional identity. Today, careers are becoming a series of projects and changing roles that serve personal and professional development, and in addition also enhance an individual's creativity, sense of happiness, and professional well-being.

1.5 Challenges in career planning: the labor market and the students' perspective

To achieve success in the labor market, HEI must give their students the instruments for developing a strong career path, and this includes not only the degrees but also specific skills and tools. The career path consists of a set of professional steps and resources that you need to define the path to be followed. That is, it works like an individualized map, tailored to each person's career goals and showing the path to follow to reach the goal(s). In the book *Fundamentals of Organizational Behavior*, authors Schermerhorn Jr., Hunt, and Osborn (2009) define career planning as "[a] process of systematically combining career goals and individual capabilities with opportunities for their achievement." For Balassiano and Costa

(2012), a career means managing one's personal and professional life, taking care of self-improvement and professional relationships. According to Brasil, Felipe, Nora, and Favretto (2011), career planning is a self-assessment process to establish professional objectives and goals to be implemented throughout the academic and professional trajectory. The authors also mention that "preceded by a well-sustained professional choice, career planning creates conditions to improve the student's use of academic space and opportunities, maximizes the chances of successful professional insertion, and guides the actions taken by the student throughout the course of training and professional practice."

The following were some of the topics selected for the agenda of the *World Economic Forum Annual Meeting – Davos 2022*:

- Global talent shortages and how companies can attract diverse talent.
- What workers want: flexibility, purpose, wellbeing, career opportunities.
- New ways of getting work done and leading with empathy, trust, and resilience.
- The rise of ESG to shape a more sustainable, inclusive future.

Following the meeting, the Manpower Group communicated in a statement that shortage of talent is an increasingly prominent reality, considering that in the next 15 years, 60% of companies will not be able to find employees with the skills they need in the labor market. It also mentions that "demographic changes, the need to achieve the right combination of technology and talent, the greater ability of workers to choose, and the growing sophistication of talent management in organizations, drive this transformation." The demands of a complex, rotating, and precarious job market (Antunes 2003) raise the need for life plans to become more thoughtful and conscious. At one time, career development planning and implementation were controlled by the organization, designed to build and maintain the skill sets required to keep the system operating efficiently (Forret, Sullivan 2002).

More than ever, it is imperative and necessary to support students in the identification and development of skills (including behavioral skills, such as soft skills) that allow for achieving self-knowledge through professional guidance and provide innovative experiences that go far beyond the traditional development of the professions currently provided by HEI.

Teixeira and Gomes (2004) state that university students are not being prepared for the transition tasks between higher education and the job market. According to the finding of Alex Bradley, Martyn Quigley & Kate Bailey (2021) in the study on "How well are students engaging with the career services at university?", ability is a key concern for students but low levels of engagement persist with respect to career service events, with typically less than 50% attendance, albeit with increases in attendance throughout the progression of a student's degree. Forret and Sullivan (2002) state that "[i]f you did not distinguish yourself early in your tenure with the company, or if you did not fit their image of the ideal high potential candidate

(often expected to mirror the existing upper management), your chances of being in that select group were limited; and so, consequently, was your career." Boudreau and Milkovich (2010) posit that competence and flexibility have become a common currency in building a career.

From the point of view of students, it is necessary to plan what skills they should develop during their training, what internships they should undertake, and how they can effectively and efficiently achieve their defined goals. According to the work of Brasil et al. (2022), titled *Professional Guidance and Career Planning for University Students*,

> [i]ndividuals, when choosing a profession and developing their professional paths, often do not correctly assess the relevance of the sphere of work in the process of building their identities […] and many students make decisions about their careers without sufficient knowledge about the chosen course or about the work they will start to develop, disconnected from information about the professional field and unaware of the personal characteristics related to their professional choice.

The authors also mention how professional guidance and the absence of career planning are among the main reasons for dropping out of university, switching tracks, lacking motivation for studies, and experiencing professional dissatisfaction. According to the same authors, career planning is configured as a possible support tool, so that students develop the necessary awareness that allows them, in academic, personal, and social terms, to invest in continuing education, achieve professional fulfilment, and contribute to overcoming the problems related to professional qualification.

Gondim (2002) mentions that high school graduates can identify a general profile of professional activity that is portrayed by the media, but they cannot identify how this profile is related to the specific skills and competencies of their area of expertise. Bardagi, Lassance, and Paradiso (2003) indicate that young people face difficulties in making their professional choices, most of which are made based on only a few criteria.

Thus, it is observed that a significant portion of young people make career choices without sufficient knowledge about the course of work they will develop, remaining disconnected from information about the professional field and ignorant of personal characteristics related to the professional choice. Faced with the challenges of the future, it is becoming increasingly important for students to plan their careers in order to enter the job market. Career planning allows them to anticipate and predict professional and personal problems and difficulties. Moreover, it asks them to reflect on various issues to establish and adjust directions in training and set goals according to their own characteristics, preferences, and values.

According to Brasil et al. (2022), when the student needs to present him/herself, s/he should be able to evaluate his/her qualities, positive and negative, to enhance

the positive traits and try to solve the issues that need to be improved. In addition, knowing and reflecting on the contemporary professional context, as well as on the future scenarios of the market and society, will allow the student to align his/her academic path with the needs of the world of work. Hence the need for the first stage of career planning to be a double procedure: on the one hand, a self-analysis (in terms of abilities, weaknesses, interests, professional inclinations, etc.); and, on the other hand, an analysis of various scenarios (regional and global economic situation, labor market, the economic emphasis of the region of interest, trends in professions and occupations, etc.). Through this double analysis, it becomes possible to plan one's integration into the labor market and career. The student, when reflecting on what s/he wants for her/his professional future, can establish adequate and adjusted strategies to succeed in her/his goals.

Given that a large percentage of higher education graduates do not end up working in their area of training, and also considering the growing number of students who do not find their first job immediately after completing their academic training, planning to enter the labor market constitutes an approach of great relevance. It is proving crucial to develop methods and techniques that help students in self-definition and personal development, as well as that enhance their creative abilities and contribute to their success in the work context.

1.6 Rationale for a new approach

Taking into consideration the questions and concerns raised in the previous sections, the authors highlight the need to develop an integrated approach contributing to helping universities to assume an updated and expanded role and students to better develop and implement successful career paths (successful in the sense of achieving personal wellbeing, including/integrating the civic, professional, and personal aspects of life).

Keeping in mind the VUCA concept jointly with emerging new paradigms, some types of soft skills seem to be widely applied together with the hard skills inherent to different scientific areas. Companies are increasingly searching to recruit and internally develop professionals with a great ability to create empathy between people and organizations, a talent for technology, and a desire to evolve in an increasingly digital world, as well as good capability of reacting to unpredictable situations combined with high flexibility and adaptability.

However, this kind of person highly values professional development, recognition, the balance between personal and professional life, and the active contribution of companies/organizations to communities through social responsibility. Thus, they believe that companies must also adapt to them, listening to their expectations and concerns.

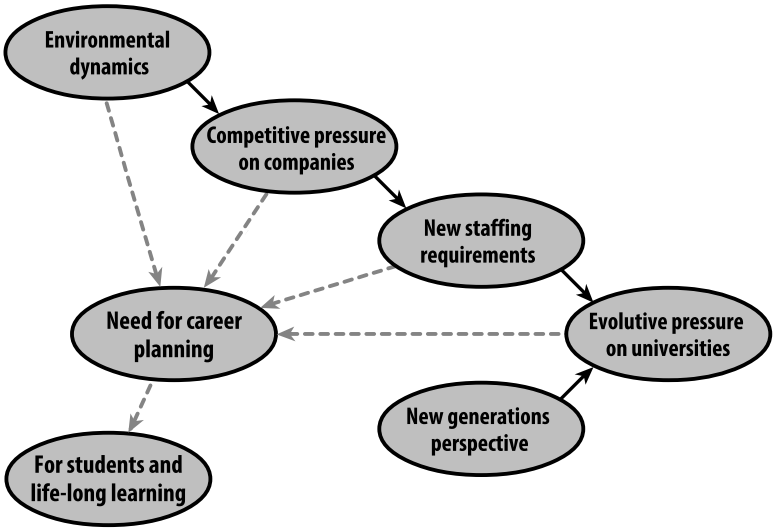

Figure 1.1 The global framework for career planning

In this way, the issues of social responsibility and personal development are to be considered by firms/organizations and, earlier, by HEI before the arrival of their students to the labor market. Because of the current number of different jobs, tasks, competencies, skills, and knowledge requirements and the numerous new ones to be created in the near future, it is not possible to define a universal profile applicable to every person/job/position.

It is possible, however, to create a methodology equipped with a box of tools, flexible enough to be adapted to different persons/backgrounds/scientific areas/expectations, to achieve several goals:

1. Help universities enlarge their scope of activities by meeting the environmental and labor market requirements, needs and expectations, in two ways:
   - Through their services and staff members responsible for providing support/help for students.
   - Trough teachers by means of integrating/combining soft skills with knowledge (hard skills) they teach in their courses.
2. Help students to be aware of several issues:
   - Self-knowledge of their personality, both assets/strengths and weaknesses.
   - Other skills/attributes required by labor markets concerning their intended professions.
   - Possible ways to overcome their weaknesses/gaps/shortcomings (desirably with the university's support).
   - Defining alternative paths of development in view of the aspects listed in above bullets and with the help of the university's staff and/or teachers.

In a fast and ever-changing world, the proposed methodology is intended to be as practical and effective as possible, to be useful and a real service to the world, e.g., by helping universities to be more efficient and effective, students to have full awareness allowing them to make the best possible career choices, firms/organizations to access the kind of professionals they need/want, and the society to have better informed and active citizens. The global framework for career planning, presented in this chapter, can be summarized as follows.

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CHAPTER 2

BE(A)ST – an agile approach to discover, experiment, and learn

Abstract
Nowadays, careers are becoming a series of 'temporal projects' that serve personal and professional development. Future employees, in order to be effective and efficient in career design, should be able to quickly prototype, test, and revise professional development plans in an agile and continuous manner. Therefore, modern career developers need a proper mindset, framework, and set of tools. This new way of thinking about career and undertaking professional development actions should be shaped as early as possible, preferably already during formal education at the university, if not earlier. This chapter presents the foundations of the BE Aware STudent approach (BE(A)ST). It takes into consideration the discussion on the dynamics of job market changes and its influence on career development as outlined in Chapter 1. The conclusions from the previous chapter show that career development nowadays can be considered as a *wicked problem*. These insights have set the stage for the main motivations, objectives, and structure of the BE(A)ST approach, as well as the key benefits to all stakeholders. The chapter also presents comparative analysis that has been carried out with regard to BE(A)ST vs. traditional and modern career development frameworks foundations. As the BE(A)ST methodology is fully agile and user-centric, the final part of the chapter discusses its innovativeness in these areas from the perspective of Design Thinking and Agile frameworks.

Keywords: BE(A)ST approach, professional identity awareness, Design Thinking in career development, designing your life, Business Model You, Agile Career Development

2.1 Motivations & aims of the BE(A)ST approach

2.1.1 Labor market changes and their influence on career development

The motivations for the BE(A)ST approach development have been driven by careful observation of economic trends, labor market changes, and their implications for universities education strategy as well as modern career design.

Most employee development strategies assume that the skills and knowledge learned today can be applied to tomorrow's conditions without any changes. This suggests that it is possible to first make a plan and then execute it without any significant modifications. These basic concepts of career development should be reformulated, however, since they are based on outdated assumptions – namely, the stability of personality traits and the environment (Savickas et al. 2009). Career is often perceived as a fixed sequence of stages to go through. Another erroneous assumption is that it is possible to predict career development on the basis of the predispositions, interests, and formal education of an individual (Brown et al. 2003). Paradoxically, career advisors, especially at universities, use outdated tools, like standardized tests, and a one-size-fits-all process for all students. This mass approach often renders their advice ineffective and furthermore, students seem unwilling to use the services of specialized units, such as career offices. Both advisors and students themselves should have access to tools that help prototype, test, and revise career plans in an agile and continuous manner. To effectively provide such counselling services, it is important to get to know students through research. Students vary, and an effective advisor should have a variety of tools to meet the needs of each of the identified student types.

The most important aspects of career development that the modern worker must keep in mind in a completely new environment are (among others): self-management and flexibility, designing a career with commitment throughout one's life, building a professional identity and a sense of meaning despite diverse work arrangements, and finding work that meets basic needs despite the emergence of new employment relationships.

It is increasingly popular to say that universities are preparing students for jobs that do not yet exist, using technologies that have not yet been invented to solve problems that are not yet known to be problems (Jackson 2008). To prepare students to navigate in an environment of uncertainty, it is important to develop appropriate knowledge, skills, and social competencies. According to the *Agile Manifesto for Teaching and Learning,* academics should structure their lessons to acquaint students with ways of operating in an environment of uncertainty by encouraging risk-taking, creativity, and innovation (Krehbiel et al. 2017). According to the creators of the manifesto, this is achieved by: responding flexibly to students' needs, encouraging them to look at learning outcomes from a long-term perspective,

and acknowledging the individuality of the students, including assigning tasks that require active learning, selecting projects whose results can be used in the future, and showing how to quickly use skills in completely different contexts to deal with unexpected, difficult situations. These factors make the process of educational path and career design harder than ever and constitute an immense challenge. To make matters worse, career development can be called a *wicked problem*, which is what we will discuss in the following section.

2.1.2 Career development as a wicked problem

One of the important insights behind the motivations to develop the BE(A)ST approach, which we consider an interesting challenge, is that career development can be regarded as a *wicked problem*. The term *wicked problem* was originally coined by Horst Rittel (Rittel, Webber 1973) to represent problems that cannot be solved in a traditional linear fashion, with the use of approaches similar to systems engineering. This is because after the solution is found and implemented, the problem definition evolves, and the problem has to be solved all over again. These kinds of problems are called *wicked* in contrast to *tame problems*. According to Ritchey (2013), the tame problem has the following set of characteristics that enables the solution to successfully be implemented in a disciplined, linear manner:

- The problem statement is well-defined and rather stable.
- The process of problem solving has a point in which it is known that the solution has been found.
- The solution may be assessed objectively, and it is possible to determine whether it is right or wrong.
- The problem has similar patterns of solution to other problems solved in the past.
- The problem has solutions which can be tried and abandoned.

The degree of difficulty of *wicked problems* is not related to distinguishable premises, but to the simultaneous occurrence of interdependent and interacting causes from many different sources. Based on Rittel's insights (Rittel, Webber 1973), the following aspects of a given problem's 'wickedness' can be identified:

- It is not possible to fully understand the problem until a solution is developed. It is impossible to prepare a definitive problem statement. *Wicked problems* are poorly structured and include an evolving set of interlocking issues and constraints.
- It is not possible to solve the problem and forget it. The problem-solving process for *wicked problems* never ends. It may end under one condition: you are out of resources. This means that *wicked problems* do not have a stopping rule.
- It is hard to find the best possible solution, or one that is unambiguously right.

- A problem that is considered to be wicked is usually unique and novel. Therefore, it is not possible to apply the already tested solution approach known to work. This is related to many factors and conditions involved and embedded in a dynamic social context. The solution to a *wicked problem* is always customized and properly fitted.
- Finding a solution for a *wicked problem* is not a 'one-shot operation'. In addition, every attempt may have consequences that can spawn new *wicked problems*. It is not possible to learn about the problem without trying solutions, but every solution you try may have unintended consequences.
- There is no one template to follow when tackling a *wicked problem*, although history may provide a guide.

In our BE(A)ST approach, we have assumed that nowadays in career development process we are dealing with most of the aspects related to a *wicked problem*.

From our observations made during several different events (Summer Schools, seminars, career design sprints, meetings with students during which majors are promoted and students are supposed to select one), many students or graduates feel stuck in their career development and have significant problems determining what they would like to do in order to be successful in their professional future. They experience the problem of which career track to select and plan as very vague and ill-defined. The issue is that it cannot be planned in the way that it has been done in the past. There is no one definition of a successful career – everyone must define success for themselves. The career path that works for one student will not necessarily work for another one. Each of us has our own unique set of needs, drivers, and motivations.

Wicked problems are unique, and 'professional success' will look different for each individual, being based on a complex combination of traits, subjective feelings, predispositions, passion, interests, and values resulting from interactions with other actors in a specific socioeconomic context of occupation. There is no single trait profile universally applicable to all tasks and occupations, nor is it technically possible for all learners to develop the same trait (Zhao et al. 2019). Even after one selects the occupation that initially seems the most suitable, it is hard to conclude whether one has really hit upon the dream career. Doubts and questions like 'Is this really it?' and 'How would I know?' always seem to linger. It could also be the case that the satisfaction brought by professional and personal fulfilment fades over time because occupation requirements change, or one is no longer developing oneself as one wishes. Therefore, the career design process never stops and is based on 'wayfinding' rather than planning, on subjective evaluation in the context of current state of mind, and on personal resources.

Just as no silver bullet solution to a *wicked problem* exists, it is quite rare to find an occupation that is clearly a perfect fit for an individual. Usually, the occupation selected is either an ill fit or leaves substantial room to grow.

As has already been mentioned, solutions to *wicked problems* tend to generate unexpected consequences. Therefore, any change one makes in the career may result in new skills or knowledge area requirements, new relationships that have to be established and properly managed, changes to the level of job security, or other unexpected and unintended consequences over time. Moreover, any change in the career is a one-time operation that cannot be easily undone and will likely bring new consequences.

The next reason why people often feel stuck when trying to plan a career is the vast number of possible career tracks and occupations. This is also an inherent characteristic of *wicked problems*. Such a variety of possible choices is daunting and may cause so-called analysis paralysis.

The final issue that makes career development a *wicked problem* is the number of stakeholders involved in the process (family, friends, peers, supervisors, employers), which results in many possible interpretations and explanations of what the problem really is and what is causing it. This definitely does not help when dealing with career development, as the individual who attempts to solve problems is fully responsible for her actions.

As, by definition, a *wicked problem* cannot be solved in a traditional manner, with standard problem-solving techniques, for BE(A)ST we have adapted the approach of *Design Thinking* as a framework for dealing with the career development process (see Section 2.3.1).

2.1.3 BE(A)ST approach motivations and aims

Based on the insights presented above, the following motivations for the development of the BE(A)ST approach have been formulated:

- There is a need for a unified, comprehensive approach to the individualization and planning of educational paths for the future career of students in terms of key skills; an approach which should take into consideration the dynamics of job market and occupations environment.
- The poor correlation between curricula and learning outcomes developed by universities with real requirements of labor markets makes it difficult to increase the employability of graduates; tools are needed to match current requirements of the job market with universities' programs and course content.
- Taking into consideration students' needs, passion, current interests, skills, and knowledge, one should carefully select tools that will allow students to design their education process and career path – and re-design it when needed.
- There is a need for an integrated framework that will drive the use of tools and takes into account the specificity of career design and development processes that, as has been mentioned before, can be considered as a *wicked problem*.

There are two main aims of the BE(A)ST approach:

- To provide a framework that enables students to develop a business model mindset and deal flexibly with *wicked problems* while planning the educational track and developing one's career; as different students will have different needs, the framework should be able to support different categories of students.
- To provide a set of tools that can be used for supporting activities related to different aspects of individualization of the educational track and career design, as well as which take into account different categories of students (see Chapter 3 for a detailed discussion on the four categories of student profiles that are supported by the BE(A)ST approach).

2.1.4 BE(A)ST in the context of the foundations of traditional and modern approaches

Global and dynamic changes in the business and social environments that have led to the VUCA phenomenon subsequently resulted in the development of many approaches to career design. In this section, in order to show the advantages of the BE(A)ST approach rather than giving an overview of all the extant specific approaches, we have found it more useful to examine the fundamental principles or foundations upon which the approaches have been based.

Career development approaches can be divided into two main families, traditional and modern. Common characteristics of traditional approaches are predictability, security, and linearity. Predictability means that it is possible to plan a career, develop a fixed plan, and then follow it. This set of steps provides some sense of security because there is an assumption that if one sticks to the plan, then career development will progress in the right direction and will end with professional success. Linearity refers to way one follows a chronological set of steps in the career planning process. It also assumes that it is possible to do everything that is needed in specific stages, eliminating the need to ever reverse direction to come back to something later. This linearity keeps career-development activities future-oriented. Many organizations that conduct business in a stable environment may still rely on the traditional approach to careerdevelopment. However, the students that are in our focus who will be future staff members have to be prepared to deal with very dynamic and unstable environments of occupation. This is a significant issue taken into account when designing the BE(A)ST approach.

Modern approaches focus on a protean and boundary-less career. The concept of boundary-less career was developed by Arthur and Rousseau (Arthur, Rousseau 1996) as an opposite to the concept of 'bounded' career. The definition of boundary-less career challenges traditional employment assumptions and emphasizes

the possible range of forms a career may take during an individual's development. In this approach, the agent in the central role has different career experiences by transitioning across occupational and organizational boundaries, transitioning across boundaries between roles and even within roles, dynamically changing the network and meaning of employment relationships (Sullivan 1999). The concept of protean career, by contrast, was developed by Hall (2004). According to this concept, career success criteria are rather subjective, not objective, which means that a person's career choices are driven by such values as freedom and growth. Career success strongly depends on continuous learning. What is more, in the protean career view, psychological aspects such as self-reflection and self-direction, a high level of adaptability, professional identity, and values are of paramount importance.

The protean career concept lies at the heart of motivations for the BE(A)ST approach development. A suitable framework found in the book *Designing Your Life* (henceforth DYL) (Clark et al. 2012) has been adopted to support the protean career development process with a set of carefully selected and tested tools. These tools support students in such areas as values, interests, and passion discovery as well as professional identity definition. The self-reflection process supported by the DYL tools is specific for every individual who is using it and is driven by her personal resources.

The next very important aspect of career development approach is related to career success drivers. Taking into consideration that modern approaches are focused on the individual, him/her marketability is considered as the main success driver. Marketability means that the career should be developed in a way that provides the best possible fit between an individual's personal resources and current occupation requirements. This dimension has also been taken into account in the motivations for the development of the BE(A)ST approach. The main rationale for adapting the frameworks described in the books *Business Model Generation* (Osterwalder, Pigneur 2010) and *Business Model You* (Clark et al. 2012) was to provide the individual with a business model mindset and techniques (*Business Model Canvas, Personal Business Model Canvas*) that enable him/her to constantly prototype and monitor the level of compatibility between job market requirements and personal resources. Without a doubt, these activities done in an iterative fashion ensure the individual's bargaining power on the job market with regard to marketability.

According to Eby, career success is strongly impacted by such variables as *knowing why, knowing whom,* and *knowing how* (Eby et al. 2003). *Knowing why* is related to professional identity, constant exploration of new possibilities, and fast adaptation to current circumstances. This variable has been addressed in BE(A)ST via self-reflection tools as well as activities in the career development process such as iterative prototyping and testing supported by the *Personal Business*

Model Canvas technique. The BE(A)ST toolset is a self-reflection testbed and a 'compass' that shows the current direction an individual should take in the career development process.

Knowing whom refers to networks and contacts that develop professional awareness and reveal and/or create job opportunities. In the BE(A)ST development process we have assumed, from the beginning, that the approach has to be comprehensive and multi-faceted. This means that in addition to the toolset, the student should be provided with many possible touch points with university staff members (teaching staff, career offices) who take boundary-less careers into account and accordingly provide continuous support for individual, self-directed vocational behavior and professional development. What is more, the staff members with whom students will interact are equipped with tools that enable them to transform the roles they are playing. For example, we hope that teaching staff members using the BE(A)ST approach are able to transform themselves from subject matter experts who only focus on professional skills and knowledge areas into mentors who know why it is important to learn specific topics or develop skills with regard to current market requirements. Career office workers are also welcome to take up this type of role transformation with the BE(A)ST approach. They can use the toolset to become mentors and counselors who ask appropriate questions and provide students with techniques to find answers that best fit their needs (self-reflection toolset). They can also provide hints and suggestions regarding up-to-date job opportunities and be able to clearly lay out which skills and knowledge areas should be developed to obtain these positions.

It is worth mentioning that the BE(A)ST approach also takes into consideration the needs of stakeholders who manage universities and have to make calculated decisions with regard to educational strategy. Today, to gain and sustain competitive advantage, universities have to be very in touch with job market requirements and current trends on the labor market. Only job market-driven education can assure high employability for graduates. This is not a simple task, given the changeability of the market. Tools are also being developed. The *Job Position Canvanizing Body of Knowledge Guide*, for example, provides comprehensive support for university management staff. It has been designed to explain how universities can organize educational processes to provide students with a unique value proposition closely related to labor market requirements. A detailed description of this product, however, is beyond the scope of this monograph, and we plan to publish it as a separate, self-contained publication. In sum, the BE(A)ST approach takes into consideration the whole ecosystem of job market – student – university, with the student being the main focus.

Knowing how is linked to career-related skills and knowledge. Traditional or even modern approaches usually provide a schedule/plan-based process and loosely integrated tools that are often selected randomly. In the BE(A)ST approach,

by contrast, we included a complete recipe for career development: the process together with stages and tools (see Chapter 4 on Methodology usage).

The next important issue that differentiates the potential of the applicability of the BE(A)ST approach from other (traditional and modern) approaches is the time in which the process of career development support usually starts at university. Theoretically, students are provided with career development services from the beginning up to the end of the education cycle. However, students' involvement and interest in this kind of services understandably increases the closer they get to the end of their education period. In traditional or modern approaches other than BE(A)ST, students can use career office services and take part in training sessions related to career development. In the BE(A)ST approach, career development is a continuous process that can be started early on in the university trajectory and be integrated into classes as a separate subject or as activities done by students during major-related classes. Furthermore, educational staff members who are using the BE(A)ST approach can work as mentors and counselors that gradually build professional awareness during their classes.

Another advantage of BE(A)ST over other career development approaches (both traditional and modern) is its ability to support students with different levels of professional awareness. Four customized variants have been designed (see Chapter 3 on Methodology development and Chapter 4 on Methodology usage). For every category of students, a specific set of tools is recommended.

Last but not least, a distinctive feature of the BE(A)ST approach is that we consider career development as an entrepreneurial activity that requires a proper mindset. Students should develop entrepreneurial skills in order to be successful at university and then in the labor market. In this context, the term 'entrepreneurial,' derived from the French word *entreprendre*, means 'to constantly pursue' or 'to continuously undertake.' One of the motivations behind the BE(A)ST approach is that career development cannot be treated as a one-time attempt to find the best recipe for professional life. It requires continual and proactive self-reflection to better understand one's interests and passions and how they relate to one's knowledge, skills, abilities, and character traits. It is a special kind of one-person-enterprise, the implementation of which should take into account the current state of one's personal resources, as well as current requirements of the labor market, and how these two realities can best intertwine – all the while keeping in mind that they do not remain static. The individual will develop, personal resources will change, new occupations on the labor market will appear and others will vanish. This insight has led us to select the framework described in the book *Business Model You* (Clark et al. 2012) as a foundation for career prototyping, testing, and revising.

To better understand why a business model mindset has become the cornerstone of the BE(A)ST approach, it is worth looking at the several stages through

Table 2.1 BE(A)ST vs. other approaches (traditional and modern)

Career Development Aspect	Traditional Approaches	Modern Approaches	BE(A)ST Approach
Process	Linear	Linear/iterative	Fully iterative and agile
Activities	Linear step-by-step planning	Linear/iterative planning	Discovering, prototyping, testing, and revising in converge/diverge manner
Touchpoints	Career offices staff members	Career offices staff members	Career offices staff members, teachers, other students involved in the process
Support for teachers to be career mentors	None	None	Strong
Support for teachers to be career coaches	None	None	Strong
Support for Uni Management Staff to find the best fit between educational offer and market requirements	None	None	Strong
Career development goal	Career as 'a process of finding best known solution' – employability	Career as 'a process of finding best known solution' – employability	Support for career development as a *wicked problem*, career as a continuous process of discovering and seizing opportunities for personal and professional fulfillment
Focus	Market requirements are prioritized, graduate profile is related to the major	Market requirements are prioritized, graduate profile is related to the major	Professional identity primarily driven by passion and interests
Customization for professional identity awareness level	None	None	Customizable for 3 levels
Entrepreneurial model	Business (Career) Plan Approach	Business (Career) Plan Approach	Individual as a one-man-enterprise; *Personal Business Model* constantly tested, revised, and improved
Finding fit	Job position – skills and knowledge (mainly major driven)	Job position – skills and knowledge (mainly major driven)	Professional identity (constantly evolving) – currently best-fitting occupations (constantly changing)
Supported ecosystem scope	Student – job market	Student – job market	Student – job market – university – student
Time-moment career design process usually starts and entities involved	Close to graduation, Career offices	Close to graduation, career offices	During the studies in the first cycle, teaching staff members, career offices
Support for being entrepreneurial in career development	None	None	Strong support with Business Model Mindset

which entrepreneurship theory developed. In the first stage, *Personality Theory* argued that entrepreneurs can be characterized by personality: only charismatic, bold risk-takers can be good entrepreneurs. Upon examination, however, it was found that this assumption is completely wrong – for every charismatic, bold, risk-taking entrepreneur, there was a mild-mannered, risk-averse, timid entrepreneur who was just as successful. This was in principle good news for business schools, because it is not possible to teach 'personality.' In the next stage of development, *Functional Skills Theory of Entrepreneurship* appeared, and focus was put on business skills such as management, marketing, finance, etc. However, practice has shown that this approach was also wrong. For every entrepreneur with great business skills, there was one who was completely unskilled in all these disciplines, yet equally successful. The *Functional Skills Theory* was then replaced by the *Business Plan Theory*. The new logic was to prepare a business plan in advance and then, after gathering the necessary funds, to execute it step by step. This was successful to an extent, however, in recent years, a paradigm shift has become clearly visible. As practice shows, the approach based on the *Business Model Mindset* works much better in terms of supporting the activities of fast prototyping, testing, and continuous improvement of the business model (prototype, test & revise logic).

2.2 BE(A)ST approach structure – different frameworks, one unified methodology

The crux of the BE(A)ST approach vision is to provide a multi-faceted, original methodology supporting career development through the integration of currently available frameworks, tools, and techniques. The frameworks described in the books listed below provide specific added-value elements that are needed for a comprehensive and self-contained BE(A)ST approach. The key elements of the value proposition are the following:

- *Business Model Generation* & *Business Model You* (Osterwalder, Pigneur 2010, Clark et al. 2012). For the BE(A)ST approach, we adopted the concept of *Personal Business Model*, which supports prototyping, testing, and revising the logic of career development and enables students to prototype their professional identity and reference models of job market requirements for occupations. Relating possible occupations with professional identity makes one more resilient to market changes than career design based on job positions and skills. The frameworks under consideration also support students' business model mindset development. As has already been mentioned, it is especially important in the context of shaping entrepreneurial skills for the career design process (see previous section).

- *Designing Your Life* (Burnett, Evans 2016). The main reason for adopting the framework described in this book is its potential in the area of helping individuals discover values, passion, favorite activities, as well as interests. As the BE(A)ST approach is passion-centered, these constitute the foundation for professional identity definition in terms of personal resources. Professional identity definition may be later used for the ideation of possible occupations. After the coupling is done, tools from *Business Model You* come into play and students may use the *Personal Business Model Canvas* to develop their occupation and use it for gaps analysis, resulting in hints for education track individualization. The main rationale for adopting the DYL framework is that the individual who is aware of his/her personal resources is able to design the career path that fits job market requirements and is tuned in to his/her real personal needs (interests, values, passions) and predispositions (personality, abilities).

There are two main reasons why these frameworks have been adopted for the BE(A)ST approach. The first one is their maturity: they have been carefully tested by their authors during many commercial training sessions on *Business Model You* & *Business Model Generation* and university courses on *Designing Your Life*. The second is that both can be quite easily adapted to the *Design Thinking* approach.

The potential for integration of the BE(A)ST approach in universities has also required careful analysis of its usefulness and a well-targeted selection of tools supporting different activities done during the career development process. Table 2.2 presents career design-related activities and supporting tools.

Table 2.2 Tools supporting career development activities

Career Development Activity	Tool/Technique Selected
Developing self-awareness with regard to values, passions, talents, favorite activities, and interests	Design Life Principles, Well-Being Compass, Change of Perspective, Personal SWOT Matrix, Talent Identification, Life Dashboard, Good Time Journal, AEIOU, Cognitive Reconstruction, Identify Your Values, Set Goals, Role Identification
Discovering opportunities	Career Mind Mapping, Odyssey Plan, Decision Trees
Prototyping, testing, gathering feedback	External Observer, Personal Business Model Canvas
Developing business model mindset and entrepreneurial skills	Business Model Canvas, Personal Business Model Canvas, Support Circle

Part of the tools listed in the Table 2.2 have been adopted from the books *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Business Model You: A One-Page Method for Reinventing Your Career,*

and *Designing Your Life*. The rest have been carefully selected from different sources and put together as an auxiliary toolset that may serve as a useful support for career development with the BE(A)ST approach. All the tools and techniques presented in Table 2.2 are discussed in detail in Chapter 6.

As a multi-faceted methodology, BE(A)ST can be used by and provide benefits to different groups of stakeholders. The most important stakeholders of the approach are students.

Students can use the approach for the following tasks:

- ***Better planning of one's educational trajectory.*** Selecting the most valuable subjects (from the perspective of professional identity) at university as well as additional informal education support – on-line courses, podcasts, webinars, etc.
- ***Identification and constant monitoring of the development of personal resources.*** The *Personal Business Model Canvas* can be used as a picture of the current state of student development in the area of skills, knowledge, and interests. Other techniques from the BE(A)ST toolbox may be used to self-reflect, set goals, or prepare the content of *Personal Business Model* prototypes.
- ***Developing and shaping professional identity.*** After the student understands the areas s/he is interested in and is most passionate about, then s/he will be able to gradually shape his/her Professional Identity and Personal Business Model.
- ***Early planning of career development.*** The *Personal Business Model Canvas* can be developed for specific job positions the student is interested in as well as be used as a reference model in the process of benchmarking with personal resources needed. It will also allow the student to better understand job market requirements in terms of personal resources and find the gaps that should be reduced during the time at university to be better prepared for the desired occupation.
- ***Finding the best fit between personal resources and market requirements.*** The *Personal Business Model Canvas* can be used as a tool for assessing if the student is well-prepared for specific market requirements related to the occupation s/he is interested in.
- ***Better understanding of the future job position environment.*** The *Personal Business Model Canvas* helps to understand the organizational context of occupation. Especially important in this context is an analysis that can be done with guidance by the following focal points: *Who you help, Who helps you, How you help, Roles/Relationships, How you deliver*.

Apart from students, who constitute the most important group of stakeholders, career offices staff members can use the BE(A)ST approach to improve support in coaching and counseling students in such areas as: discovering professional

identity, career development, job market requirements, selecting an occupation that fits the professional identity of students, graduate profiles analysis, design, re-design and development, finding options for additional trainings and courses. The use of the PBMC provides the following benefits:

- Visual thinking tools such as the PBMC enable one to clearly present to students the requirements set by the labor market in a persuasive and attractive way.
- Having a catalog of the PBMC for various occupations simplifies the process of finding the best fit between student personal resources and the available job offers.
- The PBMC can be used as a market requirements elicitation tool during employer meetings and support the process of collecting information about missing elements important from the employers' point of view. This can improve the correlation between educational services and real job market requirements.
- The PMBC can be applied with other standard tools used by career offices as a complementary technique.

The university teaching staff members who are responsible for designing classes, as well as other administrative academic staff (such as deans) responsible for the process of designing study programs, who would like to ensure a better match of the university's services with the actual requirements of the labor market, can use the approach in order to get the following benefits:

- ***Better fit between the content of the classes and the real market requirements.*** The *Personal Business Model Canvas* – developed for occupations for which specific classes are important – allows for validating the content and scope of the classes with specific knowledge areas and skills on the job market.
- ***Better understanding of student needs related to personal resources in the area of skills and knowledge***. Awareness of their professional identity can be enhanced by providing students with the PBMC related to different possible occupations where class content is central, and by asking them for feedback on quality of tutoring and educational materials. Based on the skills and knowledge areas which the students report to have improved, it is possible to dynamically personalize the content of classes according to the group's specific needs connected with the professional identities of the group members. However, this will require a flexible template design for subjects.
- ***Better understanding of job market value of teaching material and classes content.*** Having the PBMC for job positions related to a specific subject makes it possible to determine the market value of teaching material and improve the classes' form and content with regard to students' personal resources.

2.3 Approach innovativeness

2.3.1 *Design Thinking* as a framework for career prototyping, testing, and revising

The main goal of *Design Thinking* is to change the way one thinks about a problem. The focus is on defining the problem correctly and positively influencing mindset by moving from a fixed mindset to a growth mindset.

Design Thinking is used in different contexts closely related to *wicked problems*. Its importance for management has been proved many times (Boland 2004, Martin 2007, Martin 2009). *Design Thinking* also makes a huge contribution to innovations in the area of product and services development (Utterback et al. 2006). In the next stage of application evolution, *Design Thinking* has been used for business process design and finally has become a key element in the strategy of many companies. Recently, universities have started to show a vested interest in how to use *Design Thinking* in education management (Boland 2004, Starkey 2009). This is a direction that complies with the BE(A)ST approach. In any domain, the adjustment of solutions to needs is a key success factor. *Design Thinking* helps both to identify needs and to implement customer-oriented solutions. Universities are asking a similar question with regard to educational products provided to students. In the traditional approach, the quality of educational products is determined by the labor market value of graduates. In the BE(A)ST approach, we have assumed that this is not enough, because apart from employability and marketability, the professional success of a graduate should be deeply embedded in her passion and interests, values, and attitudes. Only that sort of combination will provide individuals with personal and professional fulfilment.

A generally accepted definition of *Design Thinking* has been emerging for a long time, and even the term itself has been a subject of controversy among its practitioners and advocates (Liedtka 2013). There are several 'schools' that have provided their own definition and framework structure.

Plattner et al. define *Design Thinking* as a systematic, user-oriented approach to solving real-life problems. Instead of focusing on how the problem can be solved technically, the main focus is on addressing the needs and requirements (Plattner et al. 2009). According to Curedale, *Design Thinking* is a human-centered way of solving difficult problems. It follows a collaborative, team-based cross-disciplinary process, uses a toolkit of methods, and can be applied by anyone, from the most experienced corporate designers and executives to school children (Curedale 2013).

In the BE(A)ST approach, we have adopted the definition according to which *design thinking is a non-linear, iterative process that is used to understand users,*

challenge assumptions, redefine problems, and create innovative solutions to prototype and test. It has been proved many times that Design Thinking *is especially effective and efficient in addressing* wicked problems.

As *Design Thinking* is a framework, it has a specific structure in terms of stages and tools used. The foundation for the stages defined in different approaches is the seminal work of Herbert Simon, *The Sciences of the Artificial*, which defines the following areas of the design process: Define, Research, Ideate, Prototype, Choose, Implement, and Learn (Simon 1996). It has been the cornerstone of design process for decades, upon which many frameworks have been developed since. There is no single *Design Thinking* framework which is commonly accepted and considered the best. The IDEO has in its process only three stages – Inspire, Ideate, Implement – the usage of which is very similar to other frameworks' stages. In the Inspire stage, a problem or opportunity is set, which is the driver for looking for a solution. The Ideate stage is related to the generation of ideas, while the Implement stage paves the way for the delivery of a developed product to the market. The d.school (The Stanford Design School), also known as the Hasso Plattner Institute of Design, also started with three steps: Understand, Improve, and Apply. These steps have over time been extended to the five-stage process which is widely used now: Empathize, Define, Ideate, Prototype, and Test. This process is represented by hexagonal Design Thinking Lenses which express modes of thinking. In the Deep-Dive framework developed by the IDEO there are such stages as: Understand, Observe, Visualize, Evaluate, and Implement (Brown, Wyatt 2010). Liedtka and Ogilvie, on the other hand, provide an approach based on Four Ws (Liedtka, Ogilvie 2011). Their intention was to make the terminology more intuitive. The 'Four Ws' stand for four questions: *What is? What if? What wows? What works?* The questions respectively stimulate valuable insights on the reality at hand, a vision of an alternative future, users' support when making hard design decisions and implementing them, as well as its transition to the market. In the Design Council of the UK approach, in contrast, the *Design Thinking* framework has been based on Four Ds – Discover, Define, Develop, and Deliver. Stages have been put on two cycles of divergent and convergent thinking, known as the *Double Diamond* process.

In the BE(A)ST approach, a combination of the d.school stages with a *Double Diamond* process yields the framework presented in Figure 2.1.

The *Double Diamond* process represents two modes of thinking that are especially important when solving *wicked problems*. The divergent thinking mode is used to generate (more, better) ideas when someone searches for potential solutions. It widens the design space and enables one to explore various possibilities. In the convergent thinking mode, the generated ideas are analyzed, evaluated, filtered, and modified. These two modes are used throughout the process, during the stages of Empathize, Define, Ideate, Prototype, and Test.

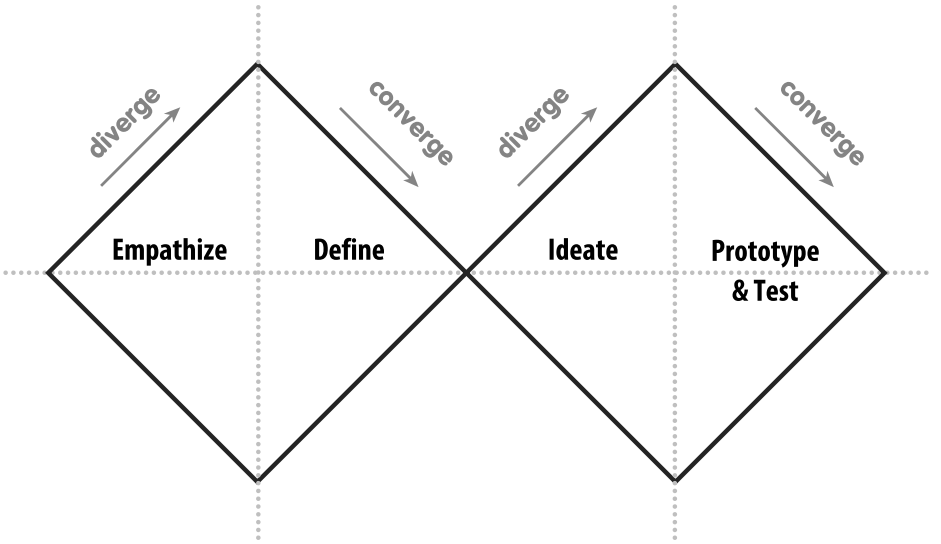

Figure 2.1 *Design Thinking* Double Diamond

In the first stage, one gains an empathic understanding of the problem. The designer tries to fully understand the needs of prospective users of the solution under development. Empathy allows us to step into the users' shoes and gather insights into their needs. It is the key to a human-centered design process. After the information is collected, all the observations are analyzed and synthesized in the Define stage, whereby synthesis drives the definition of core problems. These two beginning stages (Empathize and Define) build a solid foundation that enables one to start thinking outside the box. In the Ideate phase, alternative views/perspectives of the problem are taken that can lead to original potential solutions. The typical technique used here is brainstorming. Experimentation starts in the Prototype stage, in which attempts are made to find the best solution possible. Prototypes are used to investigate and analyze different solutions that have been generated. It is important to prototype fast and in a cost-effective manner. Therefore, scaled-down versions of the product are usually developed. Paper prototyping is often a reasonable solution. In order to verify a solution concept, rigorous testing is needed. This is the final stage, but as *Design Thinking* is iterative, the problem can be redefined, and activities can always take up previous stages, where alterations and refinements are introduced to find alternative solutions. It is important to note that these stages are not sequential steps, but different modes that contribute to the overall project. The main goal is to find the best possible solution to the problem, and it is paramount that the solution takes into account the real needs of the users.

The innovative aspect of the BE(A)ST approach lies in that the *Design Thinking* framework has been used on two levels. The first one is related to approach

development with regard to process, stages, and tools selection. We have started the BE(A)ST approach development from an attempt to gain a deep understanding of the needs of all the stakeholders involved in the career development process – students, educators, and career office staff members. After interview-based research had been completed, we developed personas that were used for problem definitions in the form of *HMW* (*How Might We* [*Help?*]) questions. We then generated ideas for possible tools. Careful analysis of the selected tools led to a toolbox prototype that was subsequently tested (for a detailed discussion of the BE(A)ST approach development process, see Chapter 3). In the subsequent stage of approach development, possible customization scenarios were taken into account.

The other level of *Design Thinking* application in the BE(A)ST approach is related to educational track individualization and career development. On the operational level, the *Design Thinking* framework also drives these processes. As career planning is a *wicked problem*, universities can apply principles of the *Design Thinking* approach to support students in the process of generating and verifying new ideas in the fields of education planning and career development. The internal logic of this application is shown in Figure 2.2.

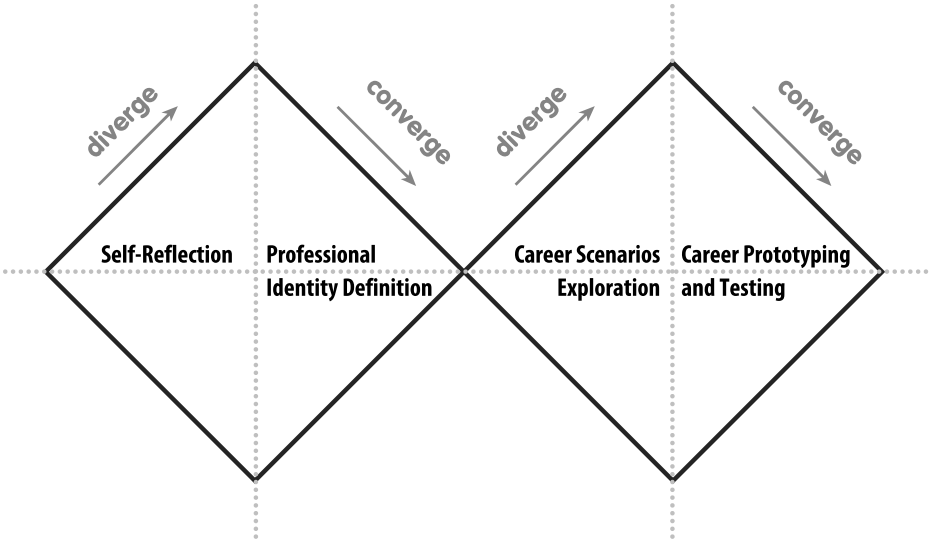

Figure 2.2 Double Diamond in the BE(A)ST approach

In the context of career development, the Empathize stage involves gaining a deep understanding of individual needs (favorite activities and how they relate to one's passion, interests, and abilities), the factors that influence a career. It

is done in the form of self-reflection supported with the tools adapted to the BE(A)ST approach (e.g., *Good Time Journal*, *Talent Identification*).

In the Define stage, the individual switches his/her mental mode to *convergent* thinking and the information collected in the Self-Reflection stage – related to favorite activities, interests, and abilities – is analyzed and synthetized. It could also be the case that a connection with the passion of the prospect is established. The results of the analysis and synthesis comprise the first version of professional identity definition. In possible occupations, ideation through *divergent* thinking is turned on again and the individual generates ideas concerning possible occupations available on the labor market that are related to her professional identity. This may be done in the form of a list of occupations related to different possible career paths. All these career paths are analyzed by the individual and for selected ones, a short pitch may be prepared with an explanation of why s/he thinks that s/he is the right person for this specific occupation. This explanation should be put into the context of professional identity. Organized as a group activity, pitch delivery can be a source of interesting insights and comments provided by groupmates. The individual can then take these fresh insights and apply them during occupation selection, which will be prototyped.

In the Prototype stage, the *Personal Business Model Canvas* technique is used. The specific occupation canvas and personal business model of the individual can be used for analyzing gaps and planning professional development according to the currently selected career path. Testing may be based on different activities, such as conducting interviews to get a deeper understanding of the specific roles the individual is considering (connected with the selected occupation), short chats with educational staff members playing the roles of mentors or coaches, discussions with career offices staff members, market research, watching short videos on specific occupation reality, trying out the role during an internship or on a volunteering basis, or listening to podcasts with experts who have been playing the role for long time.

Because *Design Thinking* is an iterative approach, in the next phase, the prototypes may be further refined based on the information collected in the test phase. The individual may explore a range of possible career options before finding the right one for him/herself. What is important with *Design Thinking* is that the individual can be sure that s/he is still on the right track, even if the tests did not go so well. According to the BE(A)ST approach assumptions, the process should be repeated by an individual many times during his/her studies to be sure that s/he is still on the right track and that the business model of the selected occupation has not changed. Change is to be expected, however, as everything nowadays is in flux; changes will invariably appear in the labor market or in the professional identity of the individual (new interests, new passion, different level of development, etc.)

This is the trigger that will start the process again and again. The good news is that each individual has at his/her disposal a comprehensive approach – such as BE(A)ST – and after it is fully internalized, the next iterations may be carried out easily, with flying colors.

As has already been mentioned, the BE(A)ST approach is customizable with regard to different characteristics of students, such as their level of awareness and attitudes to career-related activities. In this area we have also used *Design Thinking* for developing the idea of students' journeys. The design was driven by a deep understanding of the needs of four different categories of students described on the basis of their personas and carefully tested with a questionnaire (see Chapter 3 on Methodology development). This has enabled us to elaborate on the mechanisms for the personalization of the BE(A)ST approach. The individual can select the category to which s/he belongs and then go through the journey best suited to that profile. During the process of designing students' journeys, we have also developed recommendations on which tools and techniques can be used during career design at specific stages of the *Design Thinking* framework (see Table 3).

Table 2.3 Tools and techniques adapted in the BE(A)ST approach and DT stages

Design Thinking Stage	Tools and Techniques for Career Design
Self-Reflection	AEIOU, Career Mind Mapping (adapted for the Self-Reflection stage), Change of Perspective, Cognitive Reconstruction, External Observer, Good Time Journal, Life Dashboard, Role Identification (adapted for the Self--Reflection stage), Set Goals (adapted for the Self-Reflection stage), Talent Identification (adapted for the Self-Reflection stage), Well-Being Compass
Professional Identity Definition	Career Mind Mapping (adapted for the Professional Identity Definition stage), Design Life Principles, Identify Your Values, Role Identification (adapted for the Professional Identity Definition stage), Set Goals (adapted for the Professional Identity Definition stage), Talent Identification (adapted for the Professional Identity Definition stage)
Career Scenarios Exploration	Career Mind Mapping (adapted for the Career Scenarios Exploration Stage), Decision Trees, Odyssey Plan, Personal SWOT Matrix, Rich Pictures
Career Prototyping and Testing	Failure Reframe, Personal Business Model Canvas/Business Model Canvas, Support Circle

The idea of the BE(A)ST approach customization/personalization is shown in Figure 2.3.

Since we consider career development as a *wicked problem*, namely one that cannot be solved using standard problem-solving techniques, integrating *Design Thinking* framework into the processes of the BE(A)ST approach development and

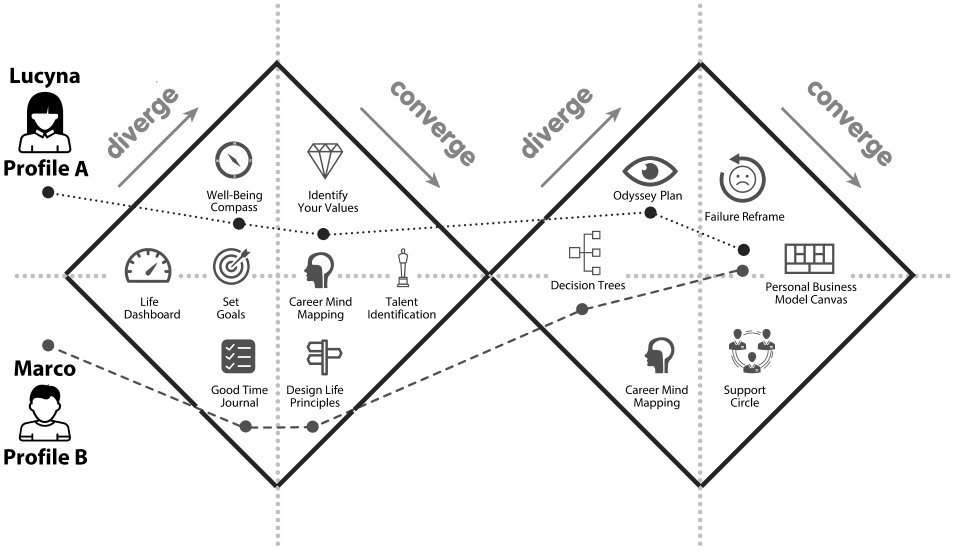

Figure 2.3 The idea of the BE(A)ST approach customization & students' journeys

usage enables individuals to feel adequately supported in building the careers they desire and designing their professional trajectory. The whole process is carried out in a flexible and non-linear, iterative fashion.

2.3.2 Importance of being agile in career development

Agility is trending. Accelerating technology development and the constant state of flux require flexibility and willingness to adapt. Students who will become (future) employees should actively lean into change and (learn to) make adjustments in their career rather than following a rigid plan. Agile qualities have become crucial to every organization that would like to quickly adapt to market changes and the constantly evolving world of work. As Marty Konstant said, "[t]he world of work is changing. Adapt or get left behind" (Konstant 2018). She has also provided a great definition of Agile Career as "a self-reflective, incremental career path, guided by response to change, evolving job roles, and designed to optimize creativity, growth, and happiness." It seems very similar to our understanding of the concept of career when we started developing the BE(A)ST approach. Let us deconstruct this definition and briefly discuss its building blocks. *Self-reflective career path* means that career development should be based on an individual's set of values, passions, and interests that are being constantly identified, validated, and integrated into the process. This is related to the concept of career well-being that is a catalyst for happiness. Career well-being is defined as "intrinsic-driven positive psychological conditions that reflect long-term contentment with their

career outcomes, career achievements, and career changes" (Bester et al. 2019). Career development is not linear and cannot be completed in one fell swoop, planned from start up to the end. Instead, it is *incremental and iterative* in order to facilitate fast responses to changes that happen quite often within the work environment and the occupation itself. The agile approach to career development also ends up optimizing the individual's creativity and growth.

According to the principles of the BE(A)ST approach, professional development should be based on personal resources, for they are necessary for setting and achieving career goals. As Coetzee et al. (2021) observed, there are three main motivators that drive the process of building personal resources in an agile manner. Technological adaptivity is related to optimism towards opportunities emerging directly from advancements in new technologies. Agile career development requires a willingness to regularly and frequently update one's skills and knowledge. This allows one to fully take advantage of new technology-related opportunities that emerge and can be the source of competitive advantage in any occupation an individual holds. Agile learning means positive emotions and full engagement in setting and planning development goals as well as searching for opportunities to learn new skills that can positively affect career success in a changing environment. Another important factor is efficient career navigation, which means, similar to problem-solving-oriented behavior, scanning the environment for new opportunities in the job market. Being active in this area also means staying informed about labor market changes that can bring new possibilities and leveraging them accordingly (Andersen 2021; Coetzee et al. 2020).

Research shows that individuals with a high level of career agility are able to identify more career options and opportunities, are more confident in their decision making, aware of their strengths and weaknesses, more successful in the job search and planning process, able to set goals, adapt to change, receive more job offers, and create careers that are meaningful and rewarding (Murphy 2021).

2.3.3 Why can BE(A)ST be considered as an agile approach?

The BE(A)ST approach differs from typical career development processes, as it is not linear but fully iterative. Most approaches to career design are organized around sequential processes. Usually, they include two main stages. The first involves detailed planning based on labor market requirements and the student's performance during his/her studies on a specific major. The job market requirements are analyzed from the perspective of skills and knowledge developed during the years of formal education. Very often the job positions considered in the career planning process are loosely coupled with the individual's real passions and interests. In the latter stage, the plan is executed. As in every linear approach, the next stage in the process can begin only when the previous one is fully completed. It is assumed

that nothing will change – the plan is done and completed – and there is no need to go back to the previous stage(s). Any appearing risk is controlled by schedule and the emphasis is on executing the initial 'frozen' plan as accurately as possible. In this scenario, change is not welcome.

The BE(A)ST approach is agile at its core. It takes into account constant changes that can occur in career planning and implementation. Professional development with BE(A)ST is similar to constant grooming of product backlog in agile software development approaches. However, in BE(A)ST there is career backlog, and its grooming is related to adding new skills and knowledge areas that should be taken into account, deleting those that are no longer important, either because interests have changed or satisfaction levels dropped, or priorities for professional development activities changed, etc. The student plans in a very detailed manner only the activities that will be carried out in the next career development sprint based on the understanding of his/her current situation with regard to personal resources and the job market situation.

In the BE(A)ST approach, risk can be controlled by fast response to changes. Instead of planning first and then executing predefined plans, the student will prototype a professional development/education track according to the current situation (her/his personal resources/job market requirements) and then test and revise plans in a continuous and iterative manner. As has been mentioned before, it is similar to sprints in software development with SCRUM, but in BE(A)ST there are career development sprints.

We have developed the BE(A)ST *Agile Career Development Manifesto* containing the values that should drive the activities of everybody who would like to effectively and efficiently manage their professional development. Our manifesto defines the following pillars of agility in career development:

- Passion and interests should be the main drivers of professional development because they are much more important for well-being and fulfillment than formal education.
- Professional development nowadays, especially in the VUCA environment, should be based on prototyping, testing, and revising rather than planning and executing long-term plans.
- Career development should be focused on professional identity rather than on specific job position(s); new job positions come and go, but the market attractiveness of value proposition based on professional identity remains stable.
- Understanding and internalizing a lifelong learning philosophy and being able to respond fast to changes allows for finding a fit between the current job market requirements and one's personal resources.

To be conducted effectively, agile career development must be supported with the proper techniques and tools to create and analyze possible future career

scenarios and quickly modify them when changes occur. The BE(A)ST toolbox (see Chapter 6) plays the role of such support in the form of a 'compass' and can be used during the process of career development according to agile philosophy principles.

2.3.4 BE(A)ST as a comprehensive, multi-faceted approach

Career development is a challenge for all groups of stakeholders involved in this process at university, i.e., students, educational staff members, university management staff, and career offices. BE(A)ST is a comprehensive approach because it supports all these groups and takes into account such factors as labor market requirements, students' personal resources, and university resources. Most of the currently available approaches do not consider all of these factors simultaneously. For example, the results of an analysis of labor market requirements for a particular group of occupations may have been implemented by the university in the form of a degree program but may not have matched the interests of the students. Many other combinations of factors are also possible, such as students' interests being compatible with a tailored study program, but then not corresponding to the labor market requirements, etc.

Career planning is especially difficult for students who have little work experience and no vision for their lives after graduation. The problems stem from low awareness of how to shape one's career path and a lack of ability to choose which areas to focus on. Students often do not realize the importance of planning their career and educational path as early as possible. BE(A)ST offers students an innovative framework with which to design their professional life according to their passions and interests. Some of the students' most important needs include:

- Discovering your true passions/interests and receiving guidance on how to connect them with career choices. *What am I really interested in? What is my passion? In what direction should I develop my skills to be the best version of myself?*
- Finding sources of internal motivation to be an active student: *Why should I participate in practicals, labs, and projects?*
- Understanding oneself, one's character traits, behavioral patterns, and hitherto unconscious needs: *Is my passion compatible with my abilities and character traits? Will something I enjoy doing now be my favorite activity in the future? Do I have the right skills for the job?*

Only after having these needs fulfilled can the student fully participate in classes, choose a professional identity-related specialization/major as well as additional offerings – both inside and outside the university. Properly selected tools offered by the university will allow students to recognize their strengths and weaknesses and draw attention to the skills for which they are talented.

These tools may be available in the form of an additional course described in Chapter 6. The goal of such a course is to teach students to use the tools independently (without experts) so that they can test various types of decisions related to their career design. The main goal of the BE(A)ST approach is to encourage students to become partners in their own learning. It seems that this goal can be achieved by creating an environment in which students can take responsibility for both the pace and content of their own learning. In this way, students will not see academic participation as a chore, but as an opportunity to develop personal resources, knowledge, and skills that will be considered valuable assets in the job market. Using the tools and techniques offered by the BE(A)ST approach, they will be aware that even if the university range of services is structured in accordance with the described approach, the gap between labor market requirements and study programs can never be completely closed. To be ready to enter the job market, students must actively search for development opportunities on their own. An additional element that you can initiate during your studies is developing a personal support network consisting of peers and mentors. Other students and faculty, as well as career office staff, can be helpful in building the foundation of a career while you are in college.

University teachers also feel uncomfortable with regard to the current situation in universities. Poor correlation between study programs and labor market requirements is often due to a lack of ability to analyze labor market offerings to adjust course content and methods of knowledge transfer. Academic teachers are generally people who engage in research and teaching work. Their prerogative is to convey knowledge at the academic level, spurring students to increase their awareness of the theoretical basis of their subject. This is not a misguided approach – indeed, such knowledge is necessary to become a valued expert in the future. The one-sidedness of the teacher's role creates widespread frustration on both sides of the teaching process. An additional difficulty for most academic teachers is the lack of practical experience and personal contacts with entrepreneurs and employees of institutions other than the university.

The most important needs of university teachers include:

- To inspire students to learn rather than merely execute the course syllabus.
- To be able to learn and use tools that update their knowledge of market trends and detailed labor market requirements in relation to the subject they teach.
- To assist students in their career orientation in conjunction with their academic research.
- To impact students with varying degrees of motivation and interest in the subject.
- To be listened to by students and treated as experts.
- To increase student engagement and develop their critical thinking.

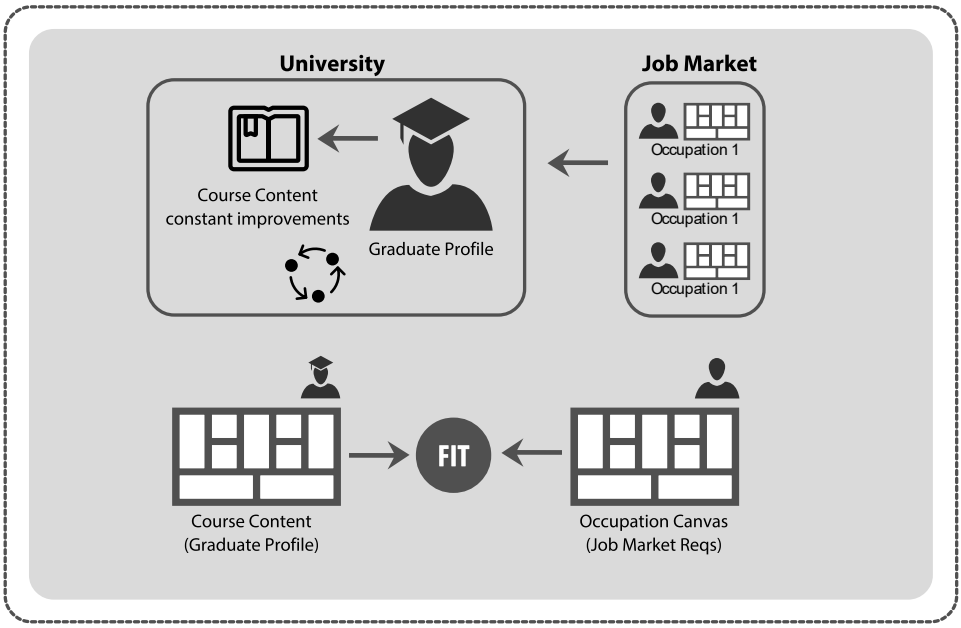

Figure 2.4 A comprehensive approach to developing the range of educational services of a university

By addressing the needs listed above, academic staff will become a group that takes an active role in helping students make informed educational decisions. Taking a Personalized Career Development course (based on the BE(A)ST approach) and specifically learning the PBMC technique will give academic staff the knowledge and skills to be mentors to students. They will be able to identify passion-related career areas for students and advise them on how to best be able to meet the demands of the job market in the future. These activities should be carried out in a way that meets the best academic standards.

The third group of stakeholders are members of the career office staff who support students in building relevant competencies and identifying career directions that are particularly important to their professional identity. The position of these individuals at the university is very difficult. Very often neither academic staff nor students appreciate their work. The university is treated as a place to acquire specialized knowledge, not a place to look for a job. They find themselves between two worlds: the university has to help students find a job because it is judged in this aspect as well, but ultimately it is not the university that is responsible for students finding a job.

Some of the most important goals of the career office staff include:

- Not just to help the students find a job, but also to help them work on themselves and their careers.

- To help students understand that to achieve their dream job, they must start with their passion.
- To convince students to develop into rounded, flexible professionals rather than candidates for a job that may disappear in the future.
- To involve academics and cooperating employers in the career design process.

The application of techniques and tools from BE(A)ST allows us to respond to the goals formulated by this group of stakeholders. With students discovering their passions and consciously choosing elements of the range of educational services that match with these, they will be more willing to engage in professional and social life in various contexts, such as internships, volunteering, job fairs, and meetings with professionals.

Through the BE(A)ST approach, student employability will be enhanced by reducing the gap between graduate profiles and actual labor market requirements. Of course, this is a never-ending process, and these activities must be carried out in a systematic and disciplined manner by all stakeholder groups.

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CHAPTER 3

Methodology development

Abstract
We developed the BE(A)ST approach by following a three-phase methodology that intertwines academic research and problem solving. We have iteratively developed and tested the evolving prototypes of Personalized Career Development (PCD) courses in six different international and local programs. First, we designed the BE(A)ST approach (identification of tools, course structure, and course format). Second, we identified the students' profiles with student-centered ethnographic research and obtained the BE(A)ST profile matrix, which maps four profiles of students across student career proactivity and student career decidedness, as well as developed and validated a self-assessment questionnaire for student profile identification. Third, we designed the PCD course, matching tools and profiles with a workshop co-designed with experts, and validated the solution in a five-day international school with 20 students.

Keywords: ethnographic research, Action Innovation Management Research Framework, course design

Introduction

In this chapter, we outline the methodology that underpins the development of BE(A)ST, an approach that empowers students' awareness for a personalized career development, and we begin by identifying four basic student profiles.

To develop the BE(A)ST approach, we used the *Action Innovation Management Research Framework* (Guertler et al. 2020). This framework builds on educational action research (Nofke, Somek 2009) and design science research (Van Aken, Romme 2009). Starting from a classic design process (e.g., *Double Diamond*), we intertwined the dual process of academic research and problem solving.

The *Action Innovation Management Research Framework* iterates a possible solution (the PCD course) and embraces new and unexpected findings (called

'pivots'). We chose AIMR, building on a design research approach, because we wanted to include in our learning changes in techniques, methods, and overarching changes at the process level. Ultimately, we defined the list of tools implemented in the BE(A)ST approach, but also different PCD course formats and a double-diamond structure, as overarching frameworks.

The insight of the reflection phases provided valuable support for identifying and designing appropriate levels of modification by recognizing two main pivots (learnings) that emerged through the process:

1) The framework should minimize teachers' and experts' interaction, as usually central university offices have only a few experts relative to the large number of students.
2) A generic student is too broad of a concept to be effective. We have different types of students, and they have different needs in terms of support they need to develop awareness of their career development.

Figure 3.1 represents the methodology we followed in shaping the BE(A)ST approach, organized into three stages that represent the main design efforts (namely BE(A)ST approach design, student profiles design, and PCD course design) and related phases (gray boxes).

The BE(A)ST approach design stage (Section 3.1) deals with the identification of tools that will be used in the approach, the course structure with its different phases, and the course format. Phase 1 deals with the identification of tools (literature-driven and experts-filter), and Phase 2 with tools selection, tools' order, and course format (with an *Action Research Innovation Management Framework*).

The student profiles design (Section 3.2) starts from a classical user-centered research method where the design effort is centered around students, with the point of departure being that "different students ask for different types of support for developing awareness for their career development." Phase 3 deals with the ethnographic effort across four countries and it ends with the definition of four student personas and five student needs – obtained by a coding effort of interviews and co-design sessions among partners. Phase 4 develops a tool that students should use if they want to develop awareness regarding 'who they are,' and thus which type of support they will need from BE(A)ST. This phase has yielded the BE(A)ST profile matrix, which maps four profiles of students across two constructs: student career proactivity and student career decidedness. These refer respectively to a validated questionnaire to support the students in the identification of their profile, and a profile that students can understand and identify with.

The PCD course design (Section 3.3) personalized the PCD course upon each profile of the BE(A)ST profile matrix. Phase 5 matches tools and profiles. We did this via a workshop we co-designed with experts, where partners who developed expertise through the several PCD course iterations looked for the right set of tools for each different profile. Phase 6 is related to the validation of this format.

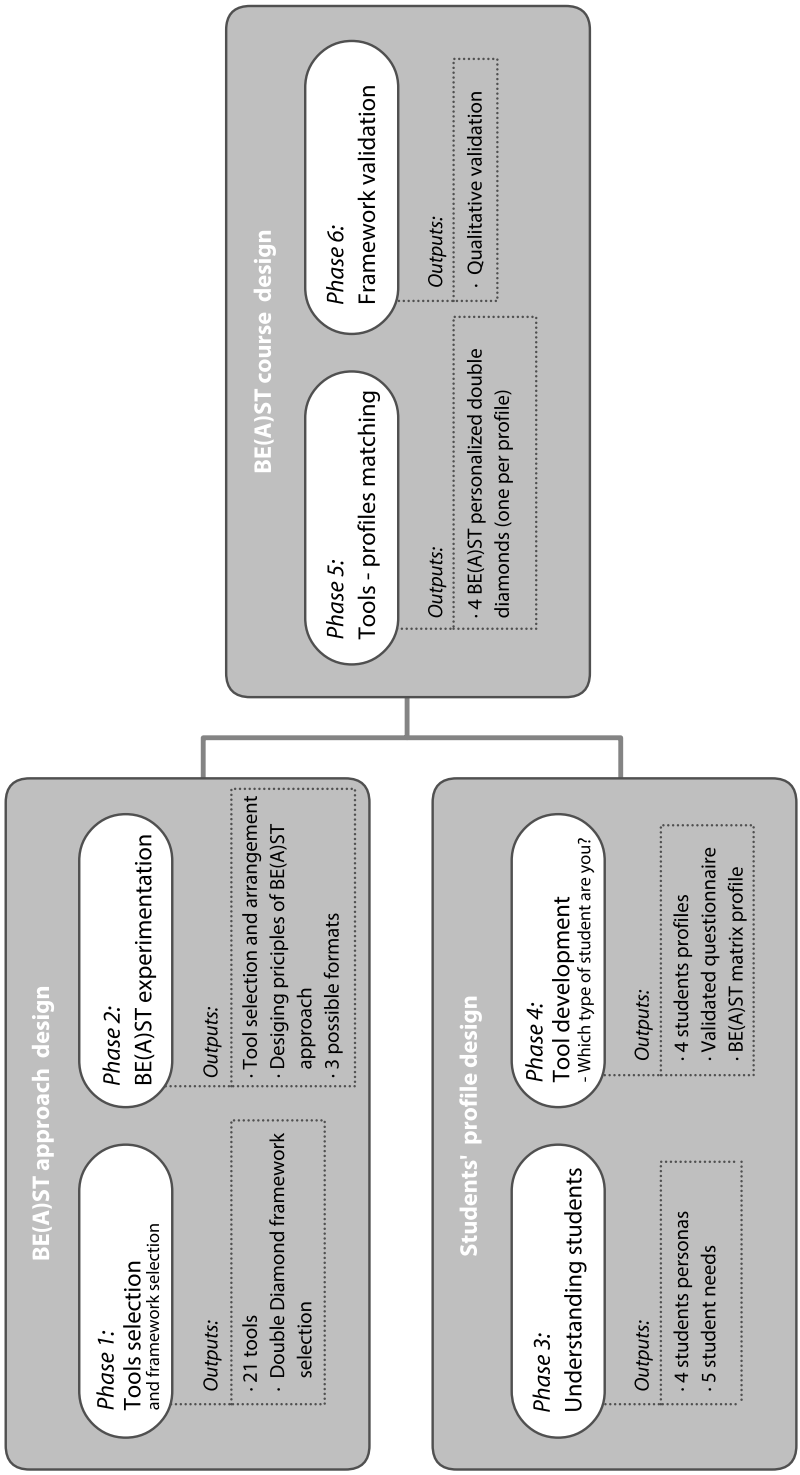


Figure 3.1 Personalized BE(A)ST approach development: three design efforts and related phases and outputs

3.1 BE(A)ST approach design

3.1.1 Phase 1. Tools selection

Phase 1 of the BE(A)ST approach design process was aimed at identifying the most popular tools used in innovation and business for career development, planning, and design. The authors looked for tools that support daily exercises/rituals, reflections on feelings, thoughts, and beliefs, and a detailed career and life plan among the available resources. To do so, we drew on publicly available university courses as well as publications (including conference papers) with the words 'design' and 'life'/'career' in the title. We compiled an initial list of tools that was subsequently filtered to identify tools that could be easily and clearly introduced to students in short activities. We obtained a list of 21 tools, reported in Chapter 4 – Table 4.2.

3.1.2 Phase 2. BE(A)ST experimentation through design iterations

In Phase 2, the course was prototyped over three years and six iterations with students attending the PCD course. The six iterations experimented with different tools, order of presenting the tools, and course formats (one-day format, four-day sprint format, and a reflective format of a few hours every two or three weeks).

After each iteration we collected different pieces of information to improve the following: feedback from participants regarding the experience as a whole and addressing efficacy of the tools, feedback from observers that performed non-participant observation of the course, and a shared ex-post critical reflection session among the authors. In Table 3.1 we present the six iterations with the experiments and lessons learned, which we explain below in more detail.

Prototype 1. We offered a five-day workshop in Rzeszow, Poland (September 16, 2019 – September 20, 2019) to help students establish an effective approach to better managing their careers. The first version of the path had two goals: first, to get a feel for the *Personal Business Model You* approach, and second, to look for connections between *Business Model You* and *Designing Your Life*. Through films, presentations, conversations, meetings with specialists, as well as personal reflections and exercises, we put the *Business Model You* and *Designing Your Life* to the test. The first course demonstrated that submitting it without first undertaking a thorough self-analysis is unsuccessful. The fear is that it will force students to define themselves in a role they are unfamiliar with, rather than helping them discover what they want to do.

Prototype 2. The second prototype was an itinerant course consisting of three meetings (June 3, June 17, June 30, 2021) of three hours each, attended by 15 alumni from the University of Bologna Alumni community. The objective of the course was to use the tools of BE(A)ST in an interactive way, alternating moments

Table 3.1 BE(A)ST approach experiments and takeaway points.

Iteration	Description	Experimentation	Takeaway points
September 16–20, 2019 Rzeszow, Poland	The intensive week involved 15 invited Masters' students from different disciplines, from Poland, Italy, Portugal.	Testing of *Designing Your Life* and *Business Model You* as two components of the career design activity.	1. *BMY* should come at the end as a prototyping tool. 2. Give more time to students to reflect on their future. 3. A deeper contact with the job market: e.g., more presentations from companies.
June 6, 2021 Bologna, Italy	The itinerant course involved 20 alumni from Bologna – all Italian, with 1–4 years of work experience after graduation.	Use of tools in an interactive way: alternating between moments of individual activities and sharing among peers.	1. Peer activity is stimulating but interacting with too many people does not help to get in touch with the others. 2. Personal reflection is helpful but too many tools can make it too schematic.
July 1, 2021 Bologna, Italy	The one-day course involved 30 international students (from France, Germany, Italy) from an innovation project.	Introducing the different student personas: questionnaire to distinguish students at the beginning so that activities are done in pairs with different students.	1. The personas tool was misleading for personal characteristics.
September 6–10, 2021 Portalegre, Portugal	The intensive week involved 15 invited students from different disciplines, from Poland, Italy, Portugal.	Evaluating the social impact of professional activities while reflecting on the context.	1. Personal reflection could be improved by connecting with the world's challenges. 2. It is important to integrate all factors: context (i.e., where you want/expect to work), specific tools for personal reflection, professional identity (more examples of pre-filled career canvasses to inspire the activity of *Personal Business Model Canvas*).
October 11–15, 2021 Modena, Italy Note: Prototype 5 will be presented in Phase 4	The intensive week involved 15 invited students from different disciplines, from Poland, Italy, Portugal.	Evaluating the effect of anticipating students' profiles at the beginning of the courses. Introduction of students' profile survey with a statistically validated scale. Consolidation and fine tuning of the teaching practices.	1. Once the student becomes aware of her profile, she feels that some tools are more appropriate or useful than others for her career design. 2. The course design needs to identify specific subsets of tools for each student profile and test their matching.
May 2–6, 2022 Bologna, Italy Note: Prototype 6 will be presented in Phase 6	The intensive week involved 15 invited students from different disciplines, from Poland, Italy, Portugal.	Personalized version of the PCD course. Adding new tools, including from ISMA 360° and from Inteligência Emocional. Introduction of entrepreneurship as a career option.	1. Validation of the match between the tools and the student profiles.

of individual activities in fixed stages with itinerant moments of exchange and sharing among peers. For each of the three meetings, a different theme was chosen with a specific selection of tools. An actor was engaged to include a theatre-based activity related to the theme of the day with the aim of enabling further reflection.

Table 3.2 Itinerant PCD course structure

DATE	THEME
1st meeting	Me and my aptitudes
2nd meeting	Me and the world of work – I explore alternative realities
3rd meeting	Me and my experimentations – the more I put into the game, the more I learn

In this prototype we learned that peer activity is stimulating for people and enriching in terms of networking. However, interacting with too many people renders the conversations superficial, which is not the right level of discussion if the topic is future career plans. Also, personal reflection was perceived as a very important task, but too many tools can make it too schematic, with the feeling of filling out a form mechanically.

Prototype 3. The third prototype was used in Bologna with 30 international students over the course of one morning (July 1, 2021). It was developed from the previous prototype of the itinerant path. The alternation between activities to be conducted individually and moments of sharing emerging reflections among peers was maintained. Given the limited time, the artistic element was not included.

However, the first version of the questionnaire "*Which Type of Student Are You?*" was administered at the beginning, and at the end, each student was asked to choose which persona they identified with the most and to make it clear to everyone by using a distinctive sign. This way, comparison activities could happen between students belonging to different categories. In this prototype, we learned that personas are a great design tool but not easy to use for individuals asked to identify with a specific persona. Many people reported that "they were not female" or that "they never traveled internationally," focusing on specific characteristics of the presented personas rather on the persona's core attitude toward his/her future career.

Prototype 4. For the fourth prototype, we organized a five-day course in Portalegre, Portugal, with the purpose of emphasizing the importance of environmental and social responsibility and encouraging students to consider the impact of their future jobs in addition to the social and sustainable dimensions. In comparison to the previous course, the purpose of this prototype was to evaluate the social impact of professional activities while reflecting on the context. This prototype taught us that focusing on the circumstance was vital, but that the link between

person and context was missing. As a result, the subsequent prototype would have to take into account all factors, including context, person, and professional identity.

Following the various prototypes developed, the learnings were formalized in the form of design principles to guide subsequent developments.

1) The BE(A)ST approach requires thinking partners: it is important that most of the activities are not done in isolation.
2) The BE(A)ST approach requires buffers of reflection time to let learning grow.
3) In the BE(A)ST approach, awareness of career development needs to pass through a stage of understanding and experimenting.
4) The BE(A)ST approach should provide students with understandable and clear tools, clarifying their ultimate goal and presenting them in a consistent order.
5) The BE(A)ST approach should give proper space to all three components: personal reflection, professional identity, and contextual framing.
6) The BE(A)ST approach should offer students the opportunity to interact with the real world as well as provide them with factual information.

3.2 Students' profiles design

3.2.1 Phase 3. Understanding students

One of the initial aims of Phase 3 was to gain a more in-depth understanding of the students through ethnographic research, using semi-structured interviews. To that end, we developed and tested a semi-structured protocol on three students from different disciplines to inquire into the students' career development needs. We were able to finalize two different protocols, one for university students and another one for recent graduates. In the case of the students, the questions constituted more of a narrative of their current path, the steps they had taken to get there, and any doubts or second thoughts. In the case of recent graduates, on the other hand, while the questions also concerned what they were currently doing and the process they had followed so far, they aimed at a reinterpretation of their path in light of what they had done so far and the repercussions it had had on their career development. We decided to also interview recent graduates because they have a more complete overview, having just completed their studies. They were, in fact, able to outline more clearly what the strengths and weaknesses of their path were, what aspects of the university world were useful and what aspects were not significant in the world of work, and what would have been useful to them were they to go back to being students. The protocol is reported below.

The protocol was then used for interviews that each partner carried out independently, with a total of 31 interviews completed. The students interviewed

were cross-nationally selected among alumni of the project's partner professors, forming a heterogeneous sample of students with distinct characteristics to capture the most input. The final distribution was: 12 Italian, 10 Polish, 7 French, and 2 Portuguese. We stopped the interviews when we reached theoretical saturation, and when we could not find any new needs.

Questions for students

- What are you studying?
- How did you come to choose this university course? Did you have other majors in mind when you enrolled? Why did you exclude them?
- Do you think your university path is compatible with your character and interests?
- How much freedom do you have to customize your educational plan?
- How do you design your study plan and what criteria guide you in the choice of exams to take?
- Are you currently aware of the job opportunities you will have when you graduate?
- If you were to go back, would you choose the same course of study in college? Would you choose the same electives?

Questions for recent graduates

- What work do you do now?
- What was your path to finding a job? What did you study?
- Do you think the job you do now is consistent with your character and interests?
- How easy was the process of looking for and finding this job?
- What do you 'use' from what you studied?
- We ask you to think back on your university path. Were there any particularly helpful moments in figuring out what you wanted to do after university? (Meetings, experiences, various enlightenment moments outside of university…) What in particular influenced you?
- When you realized that this was/wasn't your path, what did you do to make sure? What about afterward?
- Did you have a chance to consider other opportunities than what you do, and in what ways? What did you discard and why?
- How much did the university help you develop the skills you need for what you do? How has your major supported you?
- What are your major activities? The skills needed for what you do?
- How well designed was your curriculum choice? What criteria was it guided by?
- In university, were you already aware of the opportunities present concerning your course of study?

- In light of what you are doing now, would you change your plan of study?
- If you could decide how university helps students find jobs, what would you recommend?

We carried out the interviews online and recorded them with the permission of the interviewees so that we could replay them to capture all the interesting aspects and discuss them with the research team. Most of the interviews were transcribed and coded following the qualitative Gioia methodology (Gioia et al. 2013) with a three-level coding and shared results of a workshop that led to the prioritization of those needs. The first level was open coding, at which we reported recurrent themes and quotes from the interviews by using the responders' words. We obtained 46 needs, for example, then aggregated that into first-order needs (more abstract needs) and later, five needs clustered in the second order. Table 3.3 shows an example of needs clustering.

Table 3.3 Students' needs clustering

Quotes	First-order construct	Second-order construct
"Experimenting is the basis of everything. It wasn't compulsory in my Bachelor's degree but I did it anyway, and in my Master's degree it's compulsory."	Need to experiment in the real world	Experience and test your assumption about what you like or your dream job
"There comes a point in your university career when you need to have identified your direction, and therefore you need to start working on that, keeping the right balance with exams."	Need to identify one's direction during the college process	
"In my opinion, a key thing really would be to experience work in a company. To me what has really been missing is the concreteness."	Need to gain experience with a company and get concreteness	

Following the needs identification, we designed relevant student personas in each country of the collaboration: Italy, France, Poland, and Portugal.

A *persona* is a description of a fictitious user in a detailed and realistic way, representing all the most important characteristics and the context in which it is located. Unlike a stereotype, therefore, a persona is the description of a user who does not exist but whose description could be real in the eyes of a reader, because it embodies characteristics that summarize an existing subject or category. This tool is very useful to be able to empathize with the user and to understand the main needs in order not to exclude any aspect.

We described each persona through a representative sentence and a quote from him or her. We included two sections that recount the personal information, namely profile and extra-uni activities, and other sections that describe the characterization activities, the level of experimentation and interaction with the context.

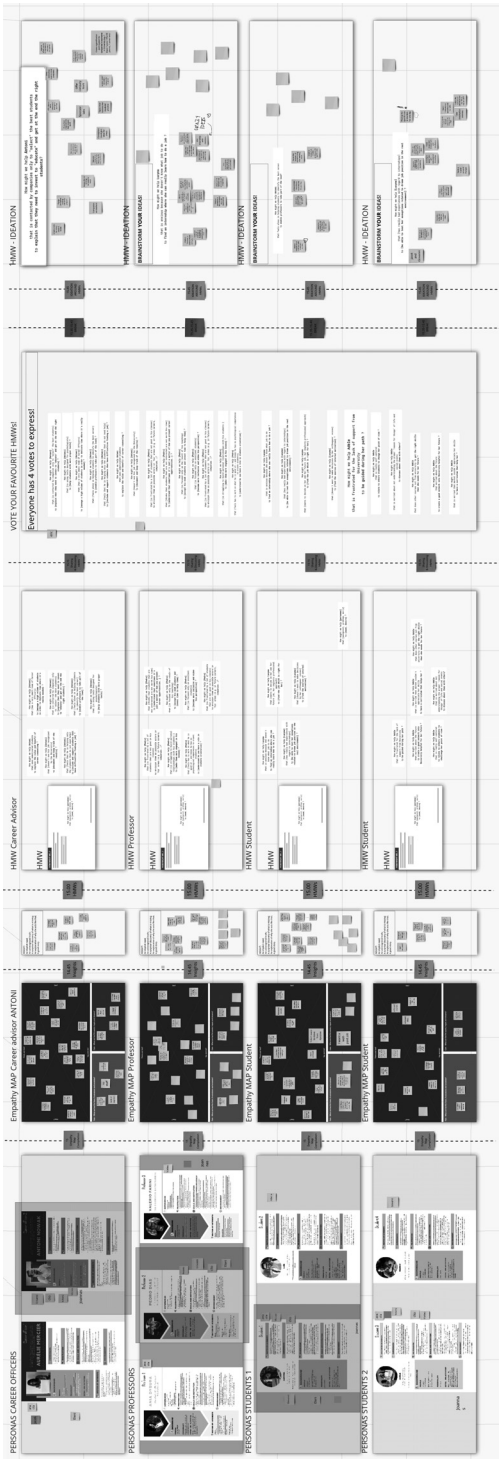


Figure 3.2 Structure of the workshop designed on Miro

Specifically, *interests*, which include the persona's *sector of interest*, and *experiences* undergone so far, *proactiveness*, which includes the personal academic path and shows how the persona has dealt with it, and *adaptability*, which describes the attitude towards the university. Finally, we described external factors through two sections: *confidence* and *environment*, whereby the former highlights how confident the person feels about the university path, and the latter describes how the person relates to the outside world.

In order to further investigate the personas and validate them at the international level, on May 17, 2021, we organized a three-hour online workshop in which all partners participated. It was conducted on the Gather.Town platform with the help of Miro Maps. The workshop was important for further elaborating on the different profiles together and refining them to validate the personas. Combining partners in international teams, we undertook a process based on some specific tools of *Design Thinking*: *Empathy Map*, *Insight*, *How Might We* and, lastly, *Brainstorming*.

Below we explain in detail the various phases of the workshop, the tools used, and the objectives to be achieved.

1. *Choose your persona*: After presenting all the personas, each participant voted for the four most interesting students to be explored during the workshop. Only two of them were then explored during the workshop, due to time constraints, while the other two personas were explored by a sub-team after the workshop, following the same process.
2. *Empathy map***:** During the following phase, each team worked on a persona to build an *empathy map*. This is a visual tool that helps foster empathy with the persona and to better organize the information the team already has, schematizing it in some predefined fields, which gives the team a more immediate and general view of the situation and allows them to put themselves in the shoes of the user more easily.
   The *empathy map* consists of six distinct areas:
   – 'See': what the person sees in his/her context.
   – 'Hear': how the environment affects the person.
   – 'Say and Do': what the person says and how s/he behaves publicly.
   – 'Think and Feel': what happens in the person's mind.
   – 'Pain': What are her/his fears, frustrations, and anxieties?
   – 'Gain': What are her/his wants, hopes, and dreams?
3. *Insights*: After building the *empathy map,* each team highlighted the most important aspects that emerged that were previously unknown or unclear, the so-called *insights*. *Insights* are a turnaround in the design process based on users' needs, or emerging when the designer realizes something unexpected or something s/he did not understand before and then develops the subsequent stages based on that understanding. It is a very generic aspect of the design process that catches your attention in some way.

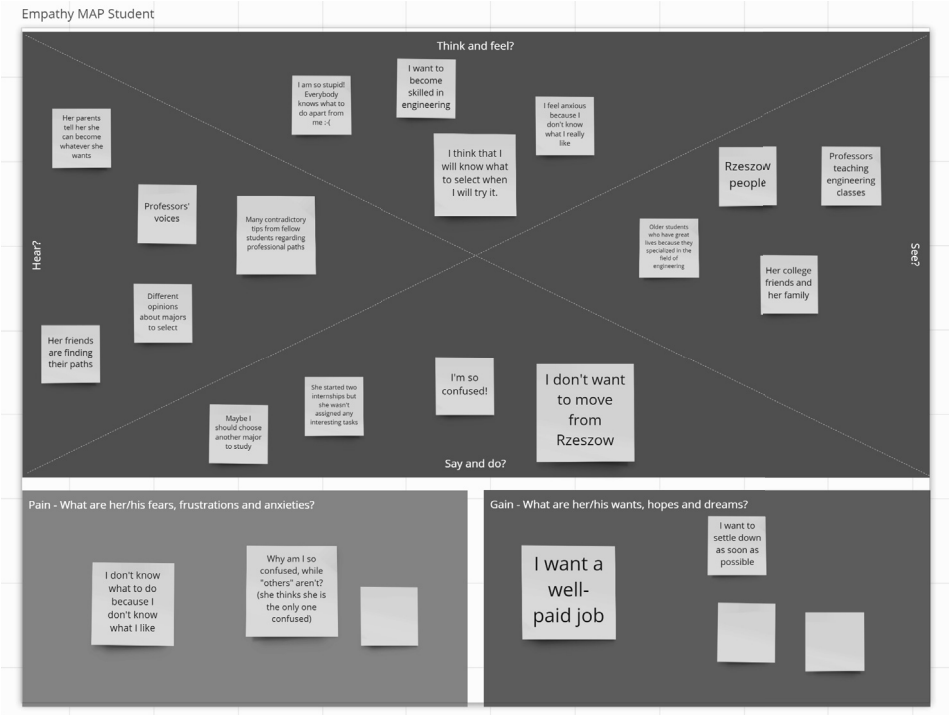


Figure 3.3 Empathy Map

4. *How Might We*: Once we collected and grouped the main insights, we developed some design questions called *How Might We* (*HMW*).
   Their purpose is to help the designer to connect the needs of the persona under examination, the context in which it is located, the constraints and opportunities that are part of the process, and all other relevant elements that have emerged.
   HMWs are characterized by the following outline:

   "How might we help **[persona]**
   who **[pain point, problem, worry]**
   to **[need, desire]**?"
   Some examples of *HMWs* were:

   How might we help Adèle, who is frustrated by the lack of support from the university, to be guided during her path?
   How might we help Lucyna, who is anxious because she doesn't know what job to do, to find an internship where she can really learn how to do a job?
   How might we help Luís, who feels lost, not knowing his passion, to take adequate time to find his way and understand that is a normal step for everybody?

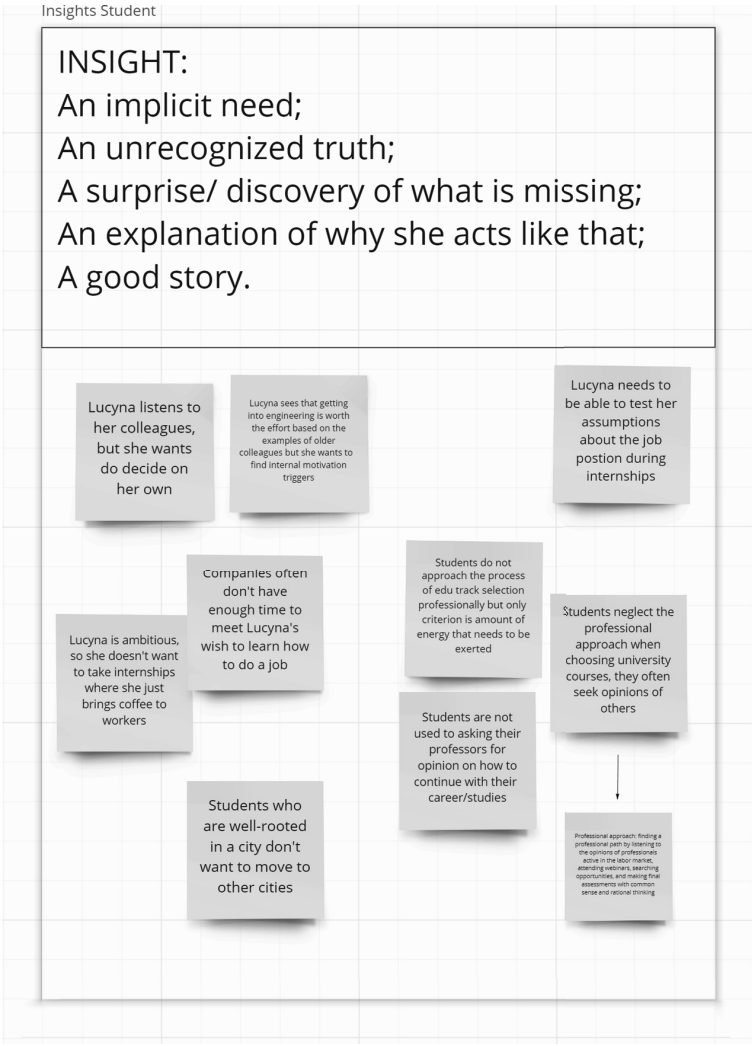


Figure 3.4 Insights

5. *Brainstorming*: After voting for the most interesting *HMWs*, we began the *brainstorming* phase, during which each team worked on a design question with the intent of generating as many ideas as possible to answer it.
   During a *brainstorming* session it is essential to encourage any idea, even the strangest, and collect a large number of responses. It is important to not overlook the constraints of the question and welcome the ideas of others without judgment, possibly adding a contribution to develop them better. At the end of the *brainstorming* session, all teams met together to further explore and discuss the ideas that emerged.

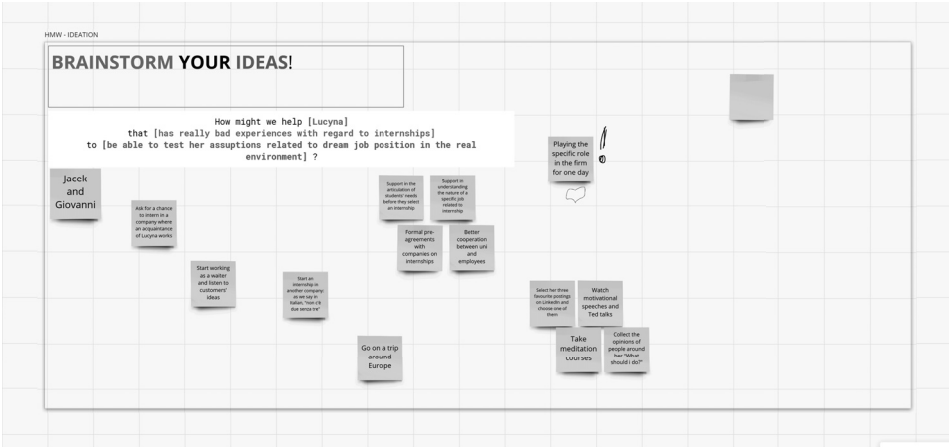


Figure 3.5 Brainstorming

3.2.2 Phase 4. Tool development – "*Which Type of Student Are You*?"

In this phase, we aimed at developing a tool to help students understand which type of student they are with regards to career-related matters. We tested whether the personas – useful for a design effort – could also serve the need to self--assess the type of student by asking students whether they identify themselves with those personas. By testing this self-assessment within some PCD course experimentation (Iteration 3), we realized that personas are not a relevant tool to support students and need to be simplified into profiles. Personas had many characteristics that misled students to focus on non-relevant information, such as personal characteristics (e.g., Student #13 told us "I chose Luís because I also went to Erasmus in the same city"). Profiles only report main *Goals and Motivation* and *Frustration*.

We also developed a questionnaire to support students in self-assessing their characteristics with direct questions and looked for a quantitative validation of the students' profiles. To this end, we developed a questionnaire entitled "*Which Type of Student Are You*?" that we submitted to students. The initial iteration was conducted with 32 other students. We made use of the distinctions that emerged after the workshop, according to which students can be characterized by four categories which can be organized along two axes: students who have high or low proactive career behaviors vs students who have high or low career decidedness.

Therefore, we constructed a questionnaire to investigate whether students identify with the personas developed and whether there is a correspondence between the two traits mentioned above and the personas.

First iteration

To test the questionnaire, we administered it in person to 31 students participating in an international innovation project. They were therefore international students interested in entrepreneurship who had used the *Design Thinking* approach within that project and who thus knew its main characteristics and tools.

We provided them with a sheet of 32 statements with answers on a five-point Likert scale: "Totally disagree," "Disagree," "Neither agree nor disagree," "Agree," "Totally agree." The first part of the statements investigated the confused/determined aspect while the second referred to the active/passive aspect. In the second step, we gave each student a sheet upon which the four personas were presented with a list of their characteristics. The students had some time to read the descriptions and choose the persona they most identified with and then physically place themselves in the group of the persona to which they belonged.

Second iteration

We then conducted the second iteration of the questionnaire by transcribing the questions into a Google format with some modifications and administering it online, collecting 421 answers from students from France, Italy, Poland, and Portugal. The questionnaire was structured in four sections.

In **the first section**, students were asked for some personal information, such as age, year of study, background of study, university.

The second section consisted of 32 statements that investigate aspects related to the four characteristics (high or low proactive career behaviors and high or low career decidedness) to which the students could respond according to the above-mentioned Likert scale.

In **the third section**, the four personas were presented and then students were asked to express on a scale of 0 to 10 how much they identify themselves with each of them through the question: "How well do you identify yourself with…?" and "Why?"

In **the fourth section**, students were asked to express how they felt about their future career:

- "If you think about your future career, how do you feel?" With the possibility to answer on a scale from 1 (*Determined*) to 10 (*Confused*).
- "If you think about what you are doing to explore your future career, how do you feel?" With the possibility to answer on a scale from 1 (*Active Experiencer*) to 10 (*Reflective Observer*).

We conducted an external factor analysis to understand which of the 32 statements really carried value and to validate the personas that students mirrored. Starting from the criticalities that emerged during the first iteration, both from the responses to the questionnaire and the results of the factor analysis, we made some changes and additions to the first version of the questionnaire.

Effectively, for the purposes of the research, it is considered fundamental to test in reality the ideas that are developed during the design process to understand if they are effectively functional or if there are any criticalities, and possibly how these can be improved. As a next step, it is therefore possible to proceed to a new iteration of the process in which the criticalities and opportunities that have emerged are integrated.

First of all, we eliminated the statements that did not bring interesting contributions, going from 32 to 18 statements. We also added two more sections to the questionnaire, which are based on scales found in literature and related to the theme being investigated. The first section refers to *Kolb's Learning Style Model*, which represents the model of learning styles considered most valid and important today. Learning style is defined as "the consistent way in which a learner responds to or interacts with stimuli in the learning context" (Loo, 2002).

Kolb's model explains how experience is transformed into knowledge, defining that learning process. An important aspect of Kolb's model is the ability to accurately measure learning styles through the development of the *Learning Style Inventory* (LSI) scale. We found it interesting to introduce the LSI scale within the questionnaire since the research identified among the characteristics of students a difference between active student and observing student, which can be traced to the distinction between *active experimentation* and *reflective observation* present in the learning styles of Kolb's model.

For the third section, we considered the *Career Exploration and Decisional Self-Efficacy – Brief Decisional Scale* (CEDSE-BD), one of the two factors of the *Career Exploration and Decision Self-Efficacy Scale* (CEDSE), which aims to assess the beliefs of individuals to manage the career development process. Specifically, the CEDSE-BD aims to assess brief decisional self-efficacy.

The dimensions of the scale investigate beliefs about self-exploration in relation to work, the correspondence that exists between one's personality and present career options, the exploration of likely career paths, and the planning and implementation of career decisions.

Because of what emerged from both the factor analysis and the collection of responses showing misunderstanding, we decided to replace the personas with *profiles*, thereby eliminating the possibility of identification with personal characteristics (e.g., "I chose Luís because I also went to Erasmus in the same city").

Therefore, we maintained the characteristic sentence and the representative quote, and we highlighted the main *Goals and Motivation* and *Frustration,* expressing them in first person so that the students can identify with them, but without being conditioned by elements of the context or personal experiences and characteristics of the personas.

A hierarchical cluster analysis[1] was performed on the basis of the level of identification with each of the new four profiles. From this analysis four clusters emerged which are consistent with the two main dimensions, i.e., proactive career behavior and career decidedness, which were then used to design the profiles.

A further comparison analysis was developed in order to evaluate the main differences between four clusters related to the factors extracted from the second part of the questionnaire. These factors are Work Experience, Talent Awareness, Activation with Expert, and Job Market Scouting.

Prototype 5. Following the testing of the different prototypes, another experiment of the BE(A)ST path was developed. Fifteen students from three different nations (Italy, Portugal, and Poland) participated in a five-day training in Modena, Italy (October 11–15, 2022). In order to gather more feedback and verify the effectiveness of the BE(A)ST approach, one researcher participated directly in it. One of the objectives was to introduce the BE(A)ST tools and to combine them, explain their purpose, have students try them out, and discuss the themes in pairs. We integrated all lessons learned in this experiment by creating a sequential connection between making the student reflect and then ideate on who she is and what she likes to do through the *Designing Your Life* approach, framing it in context and connecting it to a possible professional identity through the *Business Model You* approach.

Effectively, the BE(A)ST approach aims to combine the methodologies of *Designing Your Life* and *Business Model You* in an orientation path for university students that helps them become more aware of themselves and of their aptitudes and, on that basis, to consciously design a possible career path.

We took the opportunity of this course with real students to verify that the needs collected were concrete and that the personas we had developed corresponded to real profiles with which students could identify. In addition, a researcher took part in the process as a participant, following the whole process together with the students. The objective was to verify from the inside whether this process actually activated perceptions of personalization or whether it was perceived as standardized.

3.3 Personalized Career Development course design

3.3.1 Phase 5. Matching needs and tools

After conducting the interviews and identifying the most important needs for students, we connected them with the 21 chosen tools outlined in the first phase. To do this, we developed a 1-0 matrix (1 if the tool can answer the need; 0 elsewhere).

[1] We applied Ward's method as a hierarchical clustering procedure, where the criterion for choosing the pair of clusters to merge at each step is based on the optimal value of an objective function.

We first asked three members of the author group to agree on the links, and then we held a workshop in which all of the specialists were asked to examine the matrix and reach an agreement as to whether there were any discrepancies.

Table 3.4 Matches between tools and needs

TOOL	NEED 1	NEED 2	NEED 3	NEED 4	NEED 5
Personal Business Model (Canvas)	0	0	1	1	1
Talent Identification	1	0	0	1	0
Role Identification	0	1	0	1	0
Career Mind Mapping	0	0	1	1	0
Cognitive Reconstruction	1	1	1	1	1
Change of Perspective	1	1	1	1	1
Identify Your Values	1	0	0	1	1
Set Goals	1	0	0	0	1
Personal SWOT Matrix	0	1	1	1	0
Rich Pictures	0	1	0	1	0
Decision Trees	0	1	0	1	0
Life Dashboard	0	0	0	0	1
Well-Being Compass	1	0	1	0	1
Good Time Journal	1	0	1	0	1
Design Life Principles	1	0	1	0	1
External Observer	0	1	0	0	0
AEIOU Method	1	0	1	0	1
Odyssey Plan	1	0	1	0	0
Support Circle	0	1	0	0	0
Failure Reframe	1	0	1	1	0
Prototyping	0	0	1	1	0

We then assessed potential redundancy among those tools based on students' needs and tool goals, and we minimized the number of tools that should be used to develop our BE(A)ST approach.

First and foremost, we wanted to avoid duplicating some tools. *Design Life Principles* and *Identify Your Values*, for example, share the same goal: to create some guiding principles for future professional decisions. Unlike the other tools,

the *Design Life Principles* tool is intended to be used after other tools (*Life Dashboard, Good Time Journal, External Observer, AEIOU*) have been used to define these principles in a more conscious and reasoned manner. That's why we selected this tool.

The *Personal Business Model Canvas* assists students in determining the greatest fit between personal resources and market demands, resulting in a better grasp of their future professional environment. In addition, *Career Mind Mapping* assists students in creating a detailed guide that will direct them to the career path that best meets their skills and the market's needs. We decided to keep only one of the two tools, and we chose the former because it provides more structured and directed assistance than the other.

We also wanted to prioritize simple and easy-to-use tools for creating a course that could be replicated across colleges, favoring tools that could be replicated without a relevant role of an external professional. For example, we favored the *Good Time Journal* and *AEIOU* tools, which can be developed autonomously, over the *Talent Identification* tool, because the latter requires an external professional to do a text-analysis interpretation of the answers submitted by the students.

All of them have the same purpose of assisting students in better understanding themselves and their passions, but *Talent Identification* is more difficult to implement because it necessitates the completion of procedures prior to the activity involving other people.

We chose tools that could respond to all five of the students' needs in order to have at least one tool for each need when designing the initial iteration of the process. We created a path for the first need, 'Identify your passions and internal motivation,' using several resources such as the *Good Time Journal, AEIOU,* and *Design Life Principles*. Starting with an analysis of the current situation and what students enjoy doing, the goal is to gradually increase awareness.

We put tools like the *External Observer* and the *Support Circle* in the path for the second need, "Have a personal support network of peers and mentors on the path of learning about yourself." For the third need, "Be autonomous on a path of personal understanding (without the necessary expert orientation)," we decided to structure this path by providing them with many tools, such as *Personal Business Model Canvas* or *Odyssey Plan*, which are explained in detail by professors and experts but on which the students then work independently and can use on their own after the course.

We provided tools like *Prototyping* to give students an incentive to join in the game and experience themselves for the fourth need, namely to "Experience and test your assumption about what you like, or about your ideal job." We incorporated, for example, the *Life Dashboard* feature to allow students to monitor and reflect on all spheres of their lives for the last need: to "Maintain a balance between work and personal life."

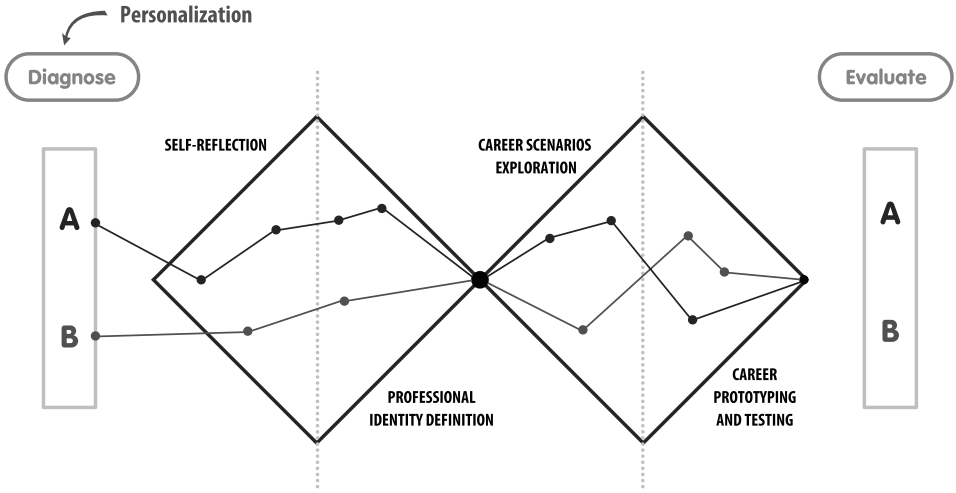


Figure 3.6 Categorization of instruments by *Double Diamond* phase

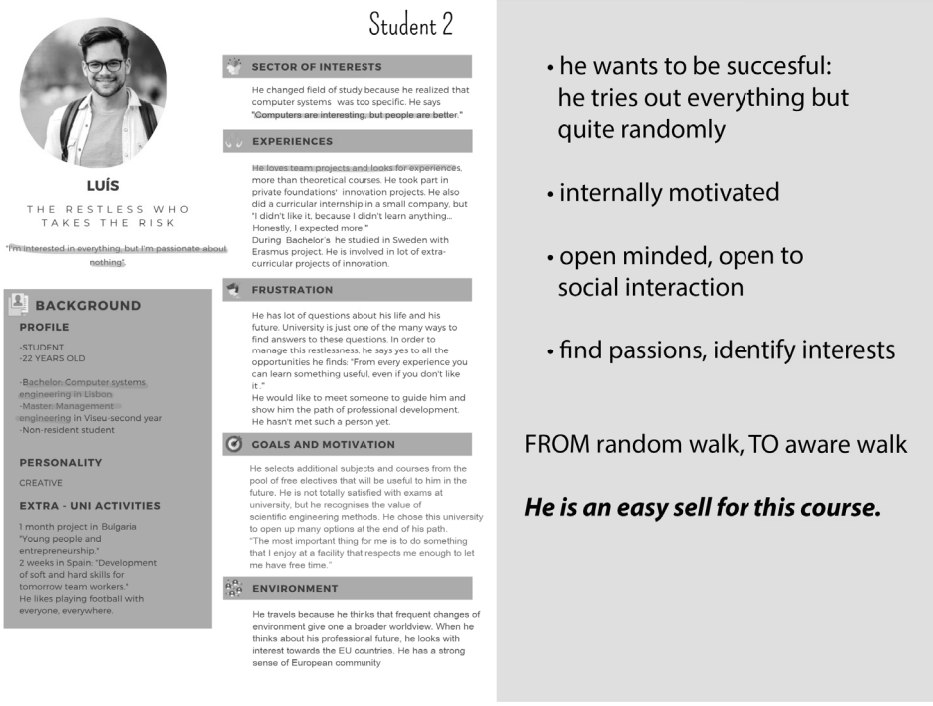


Figure 3.7 Student persona

We then organized a two-day workshop (November 2021) with BE(A)ST experts in Bologna to understand how to connect the tools with the different personas. The goal was to co-design the path of the personalized PCD course and develop personalized career guidance pathways by matching students' personas with appropriate sets of tools.

Experts were represented by teachers who had planned and run the PCD course at least twice. Once the four profiles were developed, we thought it was appropriate to work separately on each of them to gain insight into what would be the best help to give them in terms of orientation based on their main needs.

During the first part of the workshop, all partners discussed the placement of each tool within a particular phase of the *Double Diamond* (Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, Career Prototyping and Testing).

Next, we split into four teams of researchers and each team worked on a specific persona.

Each team had the goal of better investigating each persona's difficulties what support career guidance can offer her.

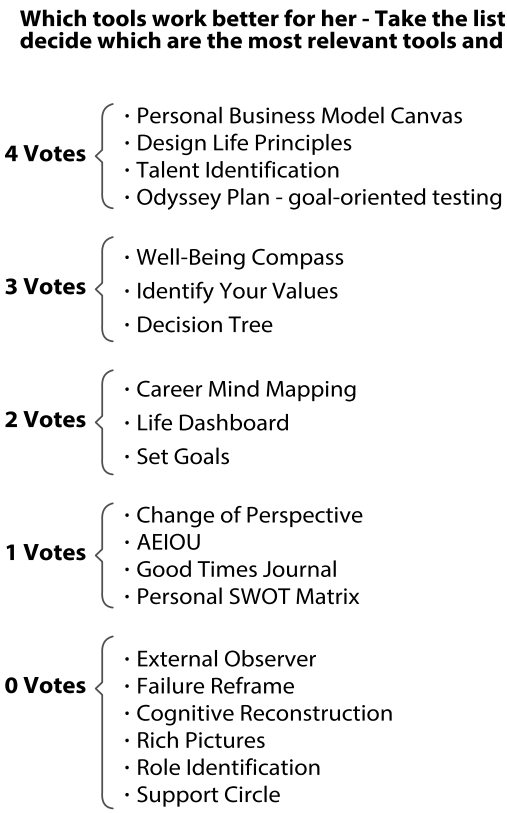


Figure 3.8 Tools selection for each student persona

For this purpose, each team summarized the characteristics of the persona under consideration, to make sure we did not lose sight of important aspects.

We also considered the *proactive career behavior* and the *career decidedness* distinctions that emerged during the development of the different personas.

After exploring the student, we set the goal that her orientation path should achieve in order to be helpful to her. We used a few questions as a guide to structure the goal so that we could gather as much input as possible and design an effective service.

Below are the questions used.

- What does she need to become more aware? (e.g., awareness, understanding of herself, push to act, push to reflect)
- What could she gain from this path? (e.g., experience trying out things, listing values and becoming a better selector)
- Which kind of KPIs could show that we succeeded? ("this course is a success for her if...."; list qualitative insights and possible KPIs)

Table 3.5 Final tools selection for Student Persona A

Stage	Tools
Self-Reflection	AEIOU • Career Mind Mapping (adapted for Self-Reflection stage) • Change of Perspective Cognitive Reconstruction External Observer Good Time Journal Life Dashboard • Role Identification (adapted for Self-Reflection stage) Set Goals (adapted for Self-Reflection stage) Talent Identification (adapted for Self-Reflection stage) Well-Being Compass
Professional Identity Definition	• Career Mind Mapping (adapted for Professional Identity Definition stage) • Design Life Principles Identify Your Values Role Identification (adapted for Professional Identity Definition stage) Set Goals (adapted for Professional Identity Definition stage) Talent Identification (adapted for Professional Identity Definition stage)
Career Scenarios Exploration	Career Mind Mapping (adapted for Career Scenarios Exploration stage) • Decision Trees • Odyssey Plan • Personal SWOT Matrix Rich Pictures
Career Prototyping and Testing	Failure Reframe • Personal Business Model Canvas Support Circle

Once we collected all the information and needs and defined the objectives, we selected for each phase (Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, and Career Prototyping and Testing) the most suitable tools for the persona under examination, connecting them to her needs.

- Which tools are better for her? Consider the list of tools we have collected and decide which are the most relevant tools and why: prioritize and select.

To achieve this, each member of the team assigned a score from 1 (not very useful) to 5 (very useful) to each of the 21 tools to define how useful that tool was for that student, considering all the information available.

The most useful tools were identified for each phase, which can be placed on a *Double Diamond* diagram that represents the personalized orientation path for each persona.

At the end of this phase, we had a complete list of tools for each student persona, namely, a personalized path to students' awareness for a personalized career development.

3.3.2 Phase 6. Framework validation

Once the personas had been replaced with profiles, it was necessary to make sure that they were actually well-structured and recognizable by the students.

To qualitatively validate the effectiveness of the profiles, we did a preliminary verification. We conducted some semi-structured interviews at the end of Prototype 5 with students in Modena (October 11–15, 2022) with a positive impact.

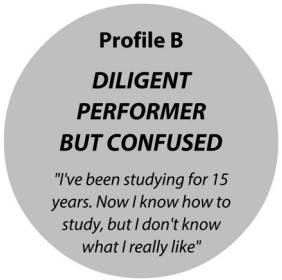
The interviews were divided into two steps:

– Step 1: to understand the profile to which the student belonged.
– Step 2: to understand if there were preferences for some tools related to the type of profile that emerged in the previous phase.

Below are the interview questions that were formulated prior to the interviews:

- How much confidence do you have in your ability to figure out which career options could provide a good fit for your personality and identify careers that best match your interests?
- In the specific case of the course, were the PCD course and the various tools (*Good Time Journal, Life Dashboard, AEIOU*) helpful?
- In making decisions related to my career future, I have been good at seeking any help I need from other people.
- In making decisions related to my career future, I follow role models on various platforms.
- If I learn more about my career values (the things I want most from a career) and more about different careers, I will make a better career decision.

Table 3.6 Tools corresponding to the personalized career path of each student profile

PHASE				
	PROFILE A	**PROFILE B**	**PROFILE C**	**PROFILE D**
SELF-REFLECTION STAGE	Well-Being Compass	Good-Time Journal + External Observer	Career Mind Mapping (adapted for Self-Reflection stage)	Role Identification (adapted for Self-Reflection stage)
PROFESSIONAL IDENTITY DEFINITION STAGE	Identify Your Values	Set Goals	Career Mind Mapping (adapted for Professional Identity Definition stage)	Role Identification (adapted for Professional Identity Definition stage) and Design Life Principles
CAREER SCENARIOS EXPLORATION STAGE	Decision Trees Odyssey Plan	Rich Pictures Odyssey Plan	Career Mind Mapping (adapted for Career Scenarios Exploration stage) Odyssey Plan	Personal SWOT Matrix Odyssey Plan
CAREER PROTOTYPING AND TESTING STAGE	Business Model Canvas Personal Business Model Canvas			

- Before entering the labor market, I intend to talk to career advisors/professors/students about career opportunities for different majors and spend time comparing the advantages and disadvantages of different career options.
- If the university provided you with podcasts with interviews with experts, for example, would they be useful to you?
- Were the tools used during the course useful to you and could they be useful to you outside of the course?
- What tools have you found most useful?

The interviewed students reported that they found some tools to be more useful than others, based on how they felt regarding their future career and what they were doing to explore their future career.

> The definition of *Life Principles* for me was very helpful. Maybe you say to yourself "I believe in this and I believe in that" but then when you have to write down these principles that guide your choices and you have to choose what to put first, you realize what you're referring to. They are a good guide to orient the choices of your professional future.

This student, for instance, has low career decidedness and low proactive career behaviors, therefore the *Design Life Principles* tool is a very important tool to identify the most important pillars of further career decisions.

> The *Odyssey Plan* was a tool that was very difficult in the beginning for me, but at the end was my favorite one. I never considered alternatives to the path I always imagined taking. I still think I'll continue to pursue my initial project, but I'm taking with me the lesson of looking at things from multiple perspectives.

In this case, the student has high career decidedness and high proactive career behaviors, therefore the *Odyssey Plan* can help to challenge his assumptions and help him become even more clear about his future career.

Prototype 6. We validated the PCD course with personalized paths in a five-day course in May 2022 in Bologna. As opposed to the previous courses, the main point to validate was the conclusion that some students' profiles can actually gain a higher career awareness with an ad-hoc sub-set of tools coherent with their profiles.

To do this, we selected students across different profiles recurring to the developed self-assessment, and we selected 16 students from three countries (Italy, Poland, and Portugal) representing different degrees, including economics and management, IT, and engineering. The students covered the four profiles as shown in Table 3.7.

The students physically attended the five-day course in Bologna, performing the tools as reported in Table 3.6.

Table 3.7 Division of self-assessment participants into 4 profiles

Profile A – THE RESTLESS WHO TAKES THE RISK	3 students
Profile B – DILIGENT PERFORMER BUT CONFUSED	2 students
Profile C – THE ENTREPRENEURIAL	4 students
Profile D – FEW IDEAS, BUT CLEAR	7 students

During the course, each student applied to herself only the subset of tools defined by her personalized path. To facilitate this, the course was organized around two different types of activities: large-group and small-group activities. The former included all the students, and teachers would present general activities and input, like outlining the general structure of BE(A)ST or the approaches of the course. Reflections were also developed in large groups (e.g., each student reported her self-reflection). Small groups included profile groups, and students were divided into different rooms with dedicated expert teachers to perform the tools assigned to their profiles.

The students took the personalized path in a single day, and at the end of the day the teachers developed a reflective activity to allow students to evaluate the tools' usefulness. We paired the students, mixing profiles (e.g., one pair had Profile B and Profile D) and asked them to perform a 'double interview'. During the interview, the students had to reciprocally share the experience they had with the tools during the course. We then asked each student to vote on their tools' usefulness from 1(--) to 5 (++) and add notes and reflections. They were also asked to evaluate their partner's tools based on what they learned from the partner. We asked the students to rate the partner's tool "based on how useful the tool seems to you and how much you think you would enjoy using it." This allowed us to note the students' feelings regarding both the tools assigned to their profiles and regarding the tools that were not assigned. The images below show some answers collected by two students. Most of the students positively evaluated the tools they tried out themselves.

The main feedback collected was that the students were satisfied with the self--assessment and were satisfied with the general outcome of the course. The comments at the end of the course seem to suggest that a 'personalized' career awareness was gained by the students as compared to their point of departure. A Profile A student said:

> I understand that I don't know myself very well and I understand that if I don't know myself, I can't know what I'd like to do. Thanks to today's activities I realized that there are actually a lot of things I like to do that I haven't considered until now.

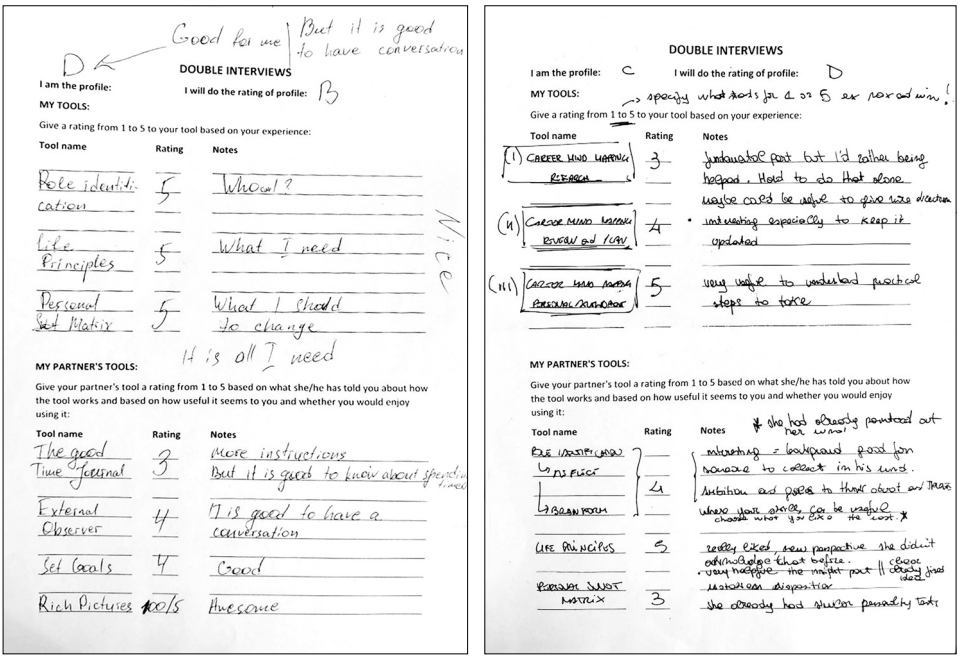


Figure 3.9 Examples of tool evaluation surveys completed by students

Another student, representing Profile D, commented:

> I was and am sure about my aims and ideas. But this course helped me understand that I was confused about the steps that should lead me to my objectives. This course helped me identify the next steps I shall try out. I will also have a toolbox to repeat the experience.

In fact, that feedback strongly validates that the course lets them experiment in their own domain.

A second insight validated the PCD course structure around small groups, where students have similar profiles and thus needs and challenges related to their career awareness development. Indeed, the students felt they could develop a higher awareness among students with similar profiles:

> Going deeper and facing one's own career development awareness is not easy – I felt some pressure while trying to do the exercises. I also acknowledge that working in a team of similar people was good, as it let me share some pressure with the others, and not feel alone (from Profile B student).

A Profile C student commented:

Despite us being from different disciplines, I loved the fact that we had similar problems with our career awareness development, and I felt comfortable reflecting and sharing with students who had similar challenges.

Another Profile B student said:

Activities in small groups among peers were interesting, I felt less lonely and supported by peers.

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CHAPTER 4

Methodology usage

Abstract
In order to help higher education institutions to better support students' career choices, we introduce a set of 21 tools and techniques to assist students in the four stages of Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, and Career Prototyping and Testing. These tools are a part of the BE(A)ST approach that can be implemented in four course formats (detailed in Chapter 5) by educational institutions, career professionals, professors, as well as the corporate world. In the second stage, we present the student profiles and their distinct needs, as well as the questionnaire to classify the students and offer personalized counseling. Indeed, we have developed a detailed, personalized path for each student profile, proposing tools to meet their specific needs.

Keywords: BE(A)ST, career design, career design tools, personalized path, career awareness, career design tools

In higher education systems, professors normally design a 'package' of disciplinary modules, such as Bachelor's or Master's degrees, to define the set of knowledge and skills students should attain if they wish to work in a specific sector. This is common practice across many institutions of higher education in Europe. We might glimpse a 'paternalistic' attitude when it comes to creating curricula, which might be inspired by the honorable objective of preventing or at least lowering the risk of student failure. As there is no opportunity for a student to fail and acknowledge his or her mistake, failure is not addressed, and when a student fails, they fail the whole year of study rather than simply a course. Although paternalism was not initially developed as an educational concept, it may be regarded as educationally relevant as a 'model of justification' for educational methods (Drerup 2015). Indeed, it is often the case that up to 100% of the developed curriculum is comprised of compulsory subjects, which leaves the impression that the employability opportunities of all students are already predefined. These limitations withhold students

from learning to be proactive in the selection of their curricula and finally in their career orientation. They are not encouraged to explore new disciplines and to an extent, to seize their interests, abilities, and prospective vocations. Furthermore, the restricted opportunities for investigation may be detrimental, since students may eventually end up narrowing down their thoughts on the suitable line of their profession thanks to a more practical experience. Nevertheless, there is no clear solution, since most students also benefit from these constraints despite having limited autonomy.

In certain higher education systems, curricula provide students with a high degree of flexibility in course selection, which encourages students to enroll in subjects that they are passionate about. However, the emphasis is mostly on the disciplinary perspective, with a fixed number of mandatory courses that must be completed to receive the degree and certain optional courses from which students must choose. This encourages students to select the most appealing courses, while they also retain the opportunity to choose what they want to study in addition to the rest of the courses. Furthermore, students have the possibility to opt for courses from a variety of programs that are not in the same academic field as their studies. As an example, a student who is studying IT but also has a passion for psychology can take classes in the psychology program. According to research, learning is significantly easier when one is interested in something (Renninger et al. 2014, Harackiewicz et al. 2016, Purcell et al. 2021). Hence, providing students in higher education with the opportunity to choose their own combinations of courses to create a 'tailored degree' would result in increased engagement, scores, and, to some extent, employability success.

The BE(A)ST (BE Aware STudent) approach proposes a solution that encourages universities, career advisors, and professors to provide parallel tracks in career orientation. These exist in the form of short courses and tools that assist students in pursuing goal-directed and, more importantly, meaningful careers that will align with their values, skills and talents, needs, and vision in life. This view towards professional orientation is also reinforced by positive psychology (Robertson 2018, Maree, Ebersöhn 2007), which enriches approaches to professional development and provides a fertile source of theories as well as an empirical framework for some elements of practice. One of the primary objectives of the BE(A)ST methodology is to challenge a reconsideration of the structure through which higher education tackles career orientation by supporting key academic players (professors and career officers) with proper methodologies to better design curricula, stages, and events. This is implemented by the proposition of a new set of tools that help educational institutions shape career-aware students who are designing their professional paths while still being in school. More specifically, the BE(A)ST methodology is meant to assist academic staff in supporting students not only in discovering their passions and linking them to a profession but also in planning their careers step by step,

while ensuring that students become aware of the factors that play an essential role in their professional well-being. BE(A)ST is designed to assist students to achieve a meaningful career by guiding them through a detailed self-reflection process and the creation of an action plan. Overall, this methodology is founded on the value of a meaningful profession that provides a feeling of purpose and fulfillment in life.

4.1 Tools selection and order

The qualitative and quantitative research work carried out over a European panel of students investigating their needs in career orientation has converged in identifying four prominent profiles of students, as stated in Chapter 3. This is a major finding that challenges the present standardized 'one size fits all' approach to career development and indicates that each student profile would require a customized path to help them meet their needs and overcome the obstacles they face.

We have created a series of tools and strategies to assist students in this process. To be more specific, this toolbox is a collection of 21 carefully selected strategies and procedures for assisting students in the stages of Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, Career Prototyping and Testing as part of the process of customizing the learning path. Effectively, the design-inspired tools aim to guide students in better designing their careers while still at university by increasing self-awareness and pushing them to probe and validate new university courses, extracurricular activities, and career options. In a sense, they provide a framework for this continuous process of professional development discovery.

Table 4.1 Career tool mapping

Tool and Reference	Description
Business Model Canvas (i.e., Osterwalder, Pigneur 2010)	Students are familiarized with the professional career planning process – one-man-enterprise, design thinking as well as forms of entrepreneurship.
Personal Business Model Canvas (i.e., Clark et al. 2012)	Students find the best fit between personal resources and market needs. They create a picture of their current stage of development in terms of skills and knowledge and come to understand their professional identity better.
Failure Reframe (i.e., Burnett, Evans 2016)	Students turn failure into growth opportunities and build new habits. The implementation of this tool can increase students' immunity to failure.
Design Life Principles (i.e., Burnett, Evans 2016)	Students read and reflect on experiences in terms of what they liked/disliked. Once they figure out a life principle, a list of *Life Principles* is created.

Tool and Reference	Description
External Observer (i.e., Burnett, Evans 2016)	This tool contains a semi-structured interview in pairs that can be used after instruments such as *AEIOU*, *Odyssey Plan*, *Good Time Journal*, etc.
Well-Being Compass (i.e., Burnett, Evans 2016)	The aim is for students to become aware of their vision of 'life' and 'work' and create a 'long-term' document.
Change of Perspective (Dennis et al. 2010)	Students figure out how to disprove cognitive biases or change their mindsets by developing a broader behavioral repertoire.
Personal SWOT Matrix (i.e., Gürel 2017)	Students assess their situation by distinguishing the internal and external world and positive and negative perspectives.
Talent Identification (i.e., Vian 2013)	Students get to know themselves and their abilities better by identifying their talents and the environment that best fits them.
Career Mind Mapping (i.e., Gati et al. 2021)	This tool enables students to explore and manage their career path through research, personal development, review, and planning.
Life Dashboard (i.e., Burnett, Evans 2016)	Presentation of the student's current situation from three points of view: work, play, and wellness. This tool helps students to become aware of their current situation regarding work, play, and wellness.
Good Time Journal (i.e., Burnett, Evans 2016)	Students observe their routines and record them. Then they analyze them based on the level of engagement while collecting the data.
AEIOU (i.e., Burnett, Evans 2016)	Students consider activities with high or low engagement/energy and analyze them vis-à-vis five aspects.
Odyssey Plan (i.e., Burnett, Evans 2016)	Students are asked to draw three possible paths for the next five years, answering three different questions.
Support Circle (i.e., Burnett, Evans 2016)	Students answer important questions together, creating a *Support Circle* that can help keep their motivation high.
Cognitive Reconstruction (i.e., Moreira 2019)	Students' self-awareness and emotional well-being is increased, especially in the students who suffer from stress, social anxiety, and procrastination.
Identify Your Values (i.e., Moreira 2019)	Students identify their values and develop self-awareness by listing values and prioritizing.
Set Goals (i.e., Moreira 2019)	This tool uses a 'wheel of life' to help students set goals and gain more clarity about their lives.
Rich Pictures (i.e., Checkland 2000)	Students use paper, pens, and their creativity to draw a 'problematic situation,' showing the factors and the dynamics involved.
Decision Trees (i.e., Utgoff 1989)	Students define alternative developmental paths and create graphs of the different possibilities for the analyzed situation.
Role Identification (i.e., Vian 2013)	Students reflect on their personalities and make a connection between their talent's desirability and employment opportunities.

Chapter 6 includes descriptions of each tool, including its strengths, weaknesses, and limitations, as well as the goals of its application. Moreover, the time required to complete it is also mentioned, along with the group target audience as well as the scenarios on how the tool can be used in various situations, the expected results, potential traps, and tips for its implementation.

4.2 Implementing Personalized Career Development at your university

In this chapter, we aim to help career professionals and professors (henceforth 'users of PCD') that would like to adopt and implement BE(A)ST in their university context by means of practical advice.

The starting point is to identify a binome of two key people who can ensure BE(A)ST implementation: ideally, a professor(s) who is willing to teach the course and a career professional who will support the course setup from the university procedure's standpoint. They should analyze the context of the university to identify how best to enable a large majority of students to attend the PCD course.

The PCD course can take the form of a separate compulsory/elective subject that is offered in the study program, for which learning outcomes are defined and verified by appropriate methods, which is attended by students during the whole semester/year.

So far, the PCD courses are currently running at the following institutions of higher education:

- The University of Modena and Reggio Emilia (UNIMORE),
- The University of Information Technology and Management (UITM),
- The Polytechnic Institute of Portalegre (IPP).

Depending on the capacity of the specific higher education institution as well as the needs and self-awareness of the student pool, the binome proposes the following three possible BE(A)ST implementations (see Chapter 5 for a detailed description of the PCD course's possible configurations):

1. As a separate compulsory/elective subject that is included in the study program, for which learning outcomes are defined and verified by appropriate methods, which is attended by students during the whole semester/year.
2. As a short-term course: an intensive sequence of learning activities offered over a short period of time (additional course for students or other target groups).
3. As an e-learning module: a self-contained unit which is available to students on a learning platform which is independent of place and time.
4. As an introduction of selected parts to other subjects/courses.

In some universities, we found that it was possible to add courses available for all the programs, as is happening for language courses. PCD could be placed at this level, so that it becomes visible and selectable for all students. If this is not possible, most universities have the possibility to launch short programs, for instance summer or winter schools open to all students and promoted on the university's website or via official channels. The last resource would be to organize a seminar that could be recognized as an extra-curricular activity and could be promoted together with other initiatives of the university, for example a job fair.

After selecting the proper academic venue/context and PCD course configuration (course, week-long intensive program, seminar…), the binome should then define the configuration by selecting the relevant tools from the process, following the advice provided here and in Chapter 5. The user now has an agenda of the activities and tools to be used and can proceed to the next phase: presenting the program for approval at the university.

The approval phase is critical, as it is specific to every university and requires careful planning of stakeholders' meetings and the preparation of all the documentation to meet formal requirements. For this, material from this book could serve as a baseline for the content. If the decision is positive, you can move on to the next activity; alternatively, we suggest lending this book to a relevant decision maker in your university.

Next, communication material should be prepared to explain and motivate students to take part in the BE(A)ST learning experience and at the same time identify a suitable location and the human resources needed. The selection of tools presented in Chapter 6 could constitute the basis for the teaching material that should be developed.

During the enrollment of students, the university should issue a call for participants that will allow the user to control for a variety of majors without too much dispersion to ensure that students do not feel isolated. We suggest providing them with the survey to identify their profiles (see Section 4.3), to know in advance which type of students are enrolling and prepare the proper material. An adequate variety in student career profiles should be ensured through a pre-selection of participants.

To ensure a strong start to the course, provide students with a clear agenda and a booklet with all the tools they can use. Review the guidelines in Chapters 5 and 6 carefully before each class and enjoy the ride. 'Profiles → Journey → Tools' is a summary of the model you can use to support the student journey.

After the completion of the course, we recommend always asking students for honest feedback about the course.

4.3 Student profiles

4.3.1 Identification of students' needs

The interviews revealed clearly that there is a variety of students with a variety of needs and goals that we propose the literature should account for. The study team felt compelled to establish a representation for these many 'types of students' because of their diversity as well as various backgrounds, talents, and aspirations. This resulted in the construction of four international student profiles, each of which encapsulates the primary needs that had been identified earlier within the process of questionnaires and interviews. As a result, each student has a profile that was formed after the essential needs and qualities had been identified. It also became evident that, depending on the qualities of the individuals, several needs exist that are unique and occasionally contradictory.

Through clustering, we identified five main student needs:

1. The need for the identification of their personal interests and motivation. To create career awareness, it is necessary to begin with cultivating self-awareness and a reflection on the student's passions and what motivates them internally.
2. The need for a personal support network of peers and mentors that will assist the students in their learning journey. As they advance through university, many students feel alone and unprepared for the future. It is vital that they recognize that there are other students in their situation with whom they may communicate. Furthermore, students must recognize that instructors and mentors are accessible and ready to assist them throughout their academic careers.
3. The need to be self-sufficient on a journey of personal understanding (without requiring professional assistance). It is critical for students to receive appropriate help while also having resources available to them that they may utilize independently to better understand themselves.
4. The need to experiment and put their assumptions about what they like/their dream career to the test. Universities in general provide very few possibilities for hands-on experience. Instead, it is essential for students to become involved and experience what they think they like in order to determine whether or not they actually do.
5. The need to maintain a healthy balance between their professional and personal lives. Students are concerned about employment conditions that prevent them from cultivating personal interests and social interactions. As a result, it is vital to maintain this differentiation in the context of a future profession.

These are the main needs that emerged as a result of the interviews. It is important to point out that not all needs belong to all students, or at least not in equal measure. This result is very interesting because it moves away from the current 'one size fits all' structure. Based on this finding the research team developed four different profiles that have different characteristics and distinct needs.

4.3.2 The four student profiles

Each student profile deals with different difficulties and has its own unique needs, as it is in a different stage in terms of career awareness. Moreover, not all students have the same needs, or at least not in the same proportion. This insight resulted in the development of four distinct profiles, each with its own set of qualities and needs.

The evaluation of the profiles was based on four axes of student behavior when it comes to their overall level of career awareness and whether or not they act on it. More specifically, in this stage of profile creation, the four student profiles were categorized in terms of student career proactivity and student career decidedness. In the table below, the separation of each profile becomes evident, as each profile is evaluated with respect to the four axes:

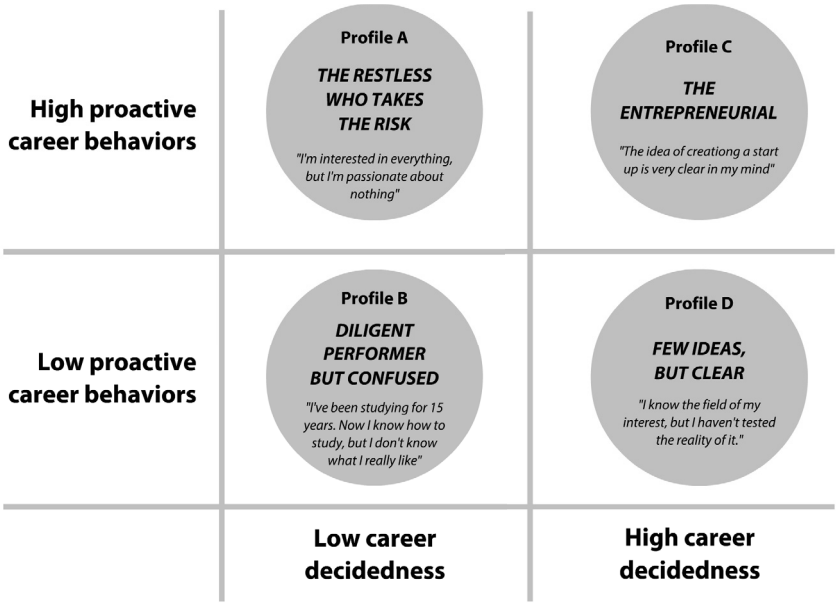

Figure 4.1 Categorization of student profiles

1. Low career decidedness
2. High career decidedness
3. Low career proactivity
4. High career proactivity

It's worth noting that assigning a profile to a student not only supports the career counselor in better identifying a student's potential needs but also provides a set of strategies for the student to have these needs met.

Profile A – The Restless Who Takes the Risk

Profile A typifies a student who, although unsure about the professional path he wants to pursue in the future, is considered to be 'highly proactive' in terms of

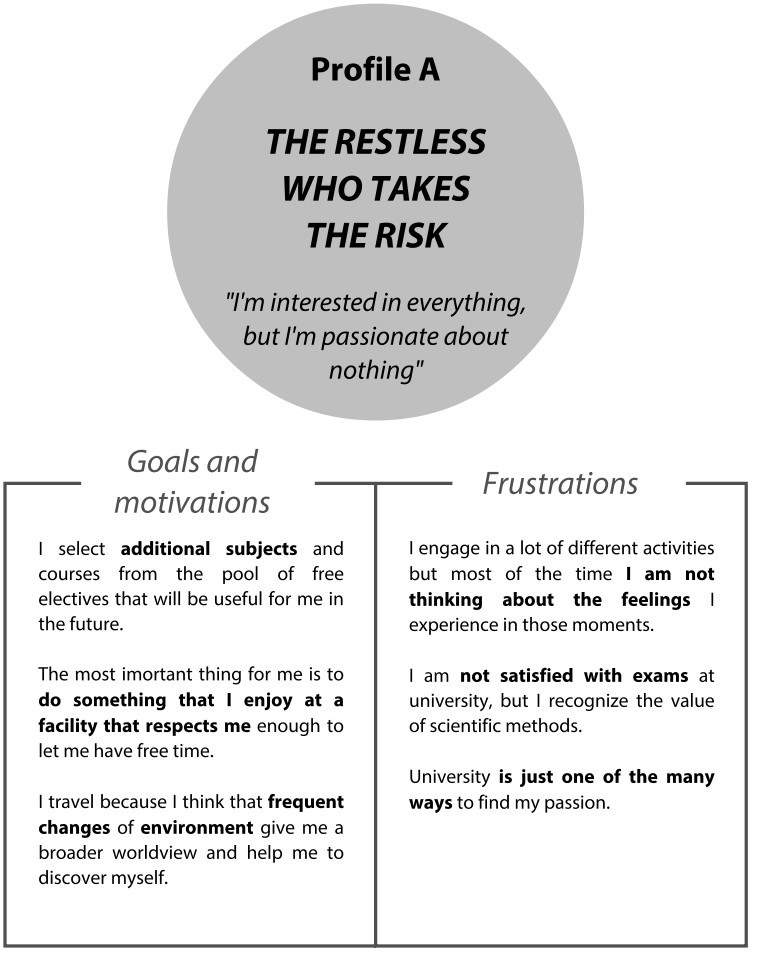

Figure 4.2 Student Profile A

taking action to gain experience in various fields through courses, internships, or extracurricular activities. However, he does not calculate or reflect upon these actions. This student seeks to gain as much experience as possible without being certain of the career he wishes to pursue, a factor that indicates confusion. Despite being restless by participating in a variety of activities and taking the risk to try something new, this student profile has many interests but has not yet developed a passion for something specific. Due to extensive involvement in a variety of activities, this student profile does not devote much time to analyzing the emotions he experiences while participating in these activities.

A way to help someone with this profile is by assisting him in identifying and understanding his interests and talents. With certainty, this random stroll through professional life could be transformed into a strategically planned path, filled with awareness in every step via the process of self-reflection and self-exploration. The assistance needed for a Profile A student includes:

- Identification of his real interests.
- Finding a connection with possible career paths.
- Effective planning and re-planning of career alternatives.
- Testing of these alternatives in order to discern the most suitable one.

Profile B – Diligent Performer but Confused

Profile B is a very careful and attentive student who consistently receives outstanding grades on tests; as a result, each time she believes she has discovered her passion, a new subject comes in, becoming a new career opportunity. This student faces university and exams as a way to understand what she likes, but she is frustrated because she does not find an answer.

With this in mind, the BE(A)ST approach can help this student profile in establishing a more open-minded approach toward researching alternative career options. Another evaluated aspect is the lack of activity when it comes to trying out other professional paths. Only by evaluating different environments can one determine which profession matches one's unique abilities, interests, and talents.

This student could benefit from help in:

- Taking more action in experiencing professional environments, proactively trying out what she does not yet know.
- Identifying her interests and talents to understand what could be a future job that makes her happy.
- Starting from her passions instead of what she is good at.
- Testing various alternatives in order to discern the most suitable one.

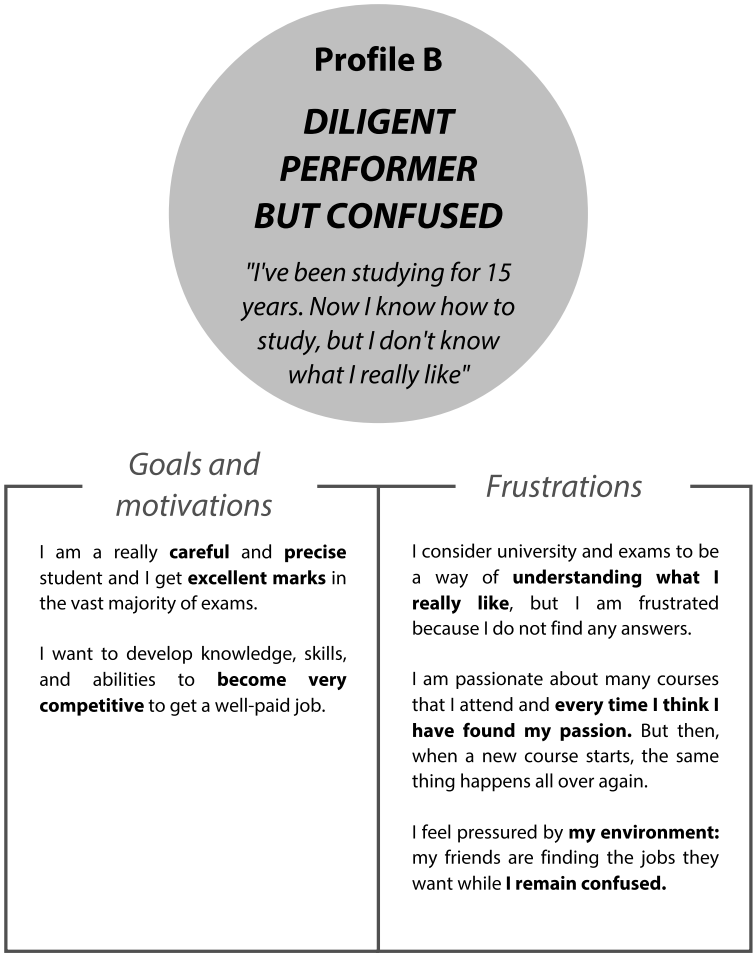

Figure 4.3 Student Profile B

Profile C – The Entrepreneurial

Profile C has a strong career ambition and/or a clear entrepreneurial vision to create a start-up. This student considers university to be vital, since any course might be beneficial in the field of entrepreneurship. Additionally, he demonstrates both high career decidedness and high proactive career behaviors in his choice of vocation. This profile believes that being curious, keeping informed, and conducting extracurricular activities are the keys to achieving his goals.

Although this student is extremely clear about the career path he wants to follow, he is worried about not living up to the market's expectations. This, in combination with the lack of support for his entrepreneurial ambition from university, constitutes his main struggle.

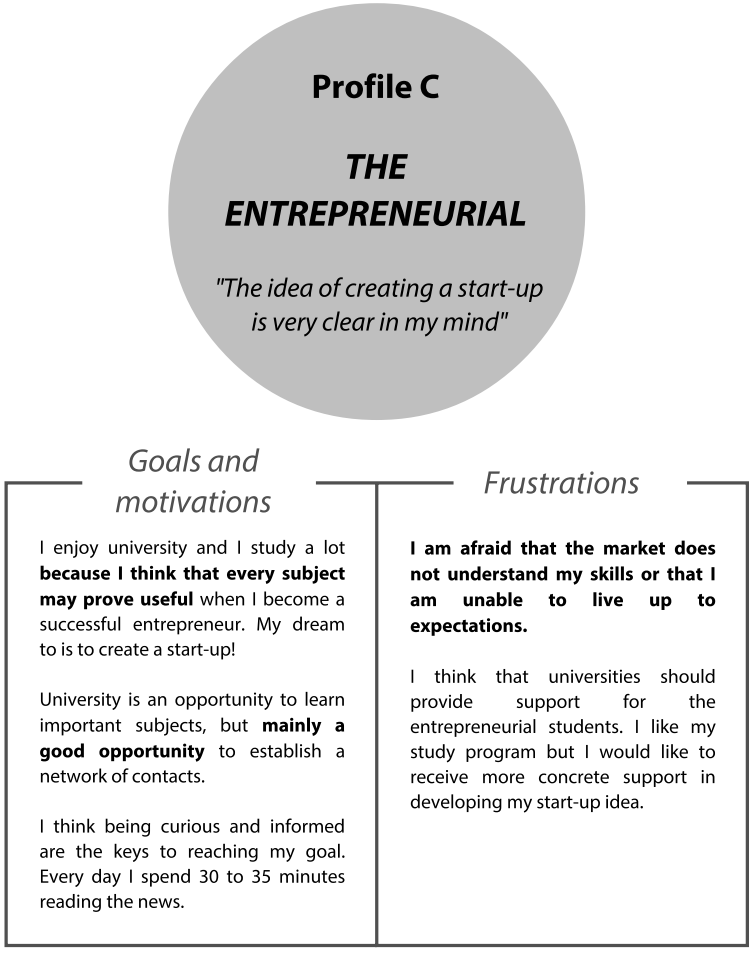

Figure 4.4 Student Profile C

The assistance that a Profile C student needs includes:

- Creating a network within the university to support his start-up idea.
- Reflecting on emotions and becoming more open to feedback.
- Receiving support to fulfil his entrepreneurial dream of a start-up.
- Effectively planning and re-planning alternatives for his start-up.
- Conducting research that will lead him to make the right decisions and testing his ideas in order to have more certainty about the way forward.

Profile D – Few Ideas, but Clear

Profile D is a dedicated student who has a distinct idea of the career path she wishes to take. She has always had a passion on which she wishes to base her

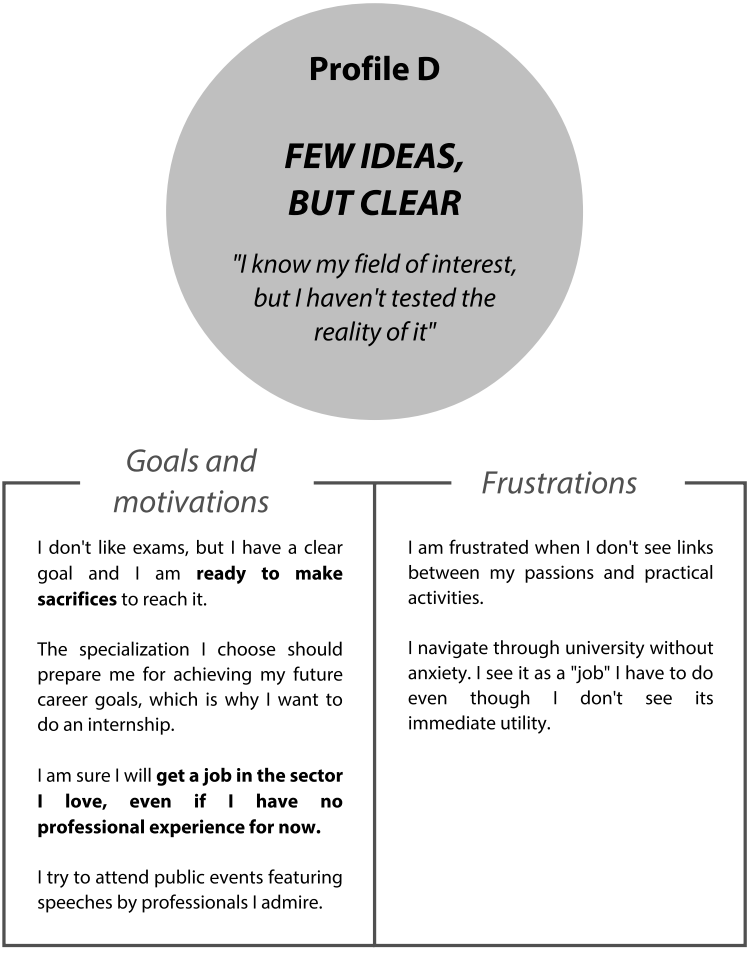

Figure 4.5 Student Profile D

career, but she has never stopped to consider whether she enjoys what she is doing or to explore alternatives.

In fact, this student is hesitant to take action and explore other options available in the labor market. In order to shift this approach and to challenge the student's ideas, the BE(A)ST approach could assist her to:

- Determine whether she is sure of what she likes by encouraging her to open her mind and put forward more ideas to make sure her assumptions are verified.
- Build a precise action plan for earning additional professional experience.
- Find the links between her passions and practical activities.
- Escape her introspective observant mindset and move to action.

4.4 Validated questionnaire – "*Which Type of Student Are You?*"

In order to validate our assumptions on the student profiles and their distinct needs, we created a questionnaire named "*Which Type of Student Are You?*" to reveal the different types of student profiles and provide insights into their current state of career awareness, actions taken to explore professional paths, and the needs they have/areas where they seek improvement, help and/or guidance.

First section

In the questionnaire, we used a five-point Likert scale ('Totally disagree,' 'Disagree,' 'Neither agree nor disagree,' 'Agree,' 'Totally agree'), including the following 18 questions:

1. I know what internal factors motivate me to make choices regarding my future career.
2. I know my passions.
3. I know my talents.
4. I have already experienced my ideal job.
5. I feel I must find a job that is consistent with my studies.
6. I want my work to be closely related to my interests and to my passions.
7. I already know which industrial sector I'd like to work in.
8. I am aware of current trends related to my field of study.
9. I know the possible 'traditional' outcomes of my academic studies.
10. Since I have a long-term vision of my future career, I selected related elective courses and activities alongside my major.
11. I feel I have enough work experience for my age.
12. I am satisfied with the work experience I've gained so far.
13. I already have work experience consistent with my course of study (like internships).
14. I'm doing specific activities to develop a curriculum that gives me more opportunities in the labor market.
15. I actively search for experts' input (specific university courses, blog suggestions, etc.) regarding curriculum improvements.
16. I actively follow input from experts who explain to me how to improve my curriculum (specific university courses, blog suggestions, etc.).
17. I spend time understanding what the most required jobs on the market are.
18. I often look for information about open positions on specific platforms (e.g., LinkedIn, university services, etc.).

4.5 Selecting students

A critical aspect of incorporating the PCD course in a higher education system is the recruitment of students. To do so, we suggest creating a call for participants,

providing both information on the course's aim and content as well as a list of participation criteria, ensuring that only those who meet them will enroll.

Effectively, posting an online announcement and promoting the workshop through the students' emails would be the simplest way to raise awareness about the event. Including a brief introduction on the main aim, origin of the methodology and workshop should create the right context. More specifically, students should be made aware that the course's objective is to assist them in more effectively planning their future professions through cultivating greater awareness of their own potential, employment options, and the development of enterprise.

In he second stage, emphasis should be put on the application process and participation requirements. These requirements can be customized for every institution so as to align with the capacity of the course and number of potential applicants. As this course can only accept a limited number of participants, establishing specific criteria may benefit the selection process. To give an example, when running the course in the partner countries, the participation requirements were based on the enrollment of students, regardless of their course of study. Another criterion was the participation in the online questionnaire: "*Which Type of Student Are You?*," in which students would identify their profile.

At this point, it is essential to include a section highlighting the institution's policy on data privacy and provide an email address for any additional information on that matter.

Lastly, information on more practical aspects, such as the schedule/agenda of each day, as well as time and location, should be prominently featured in bold. Do not hesitate to inform the students on details such as the timing of longer breaks, dining options in or around the venue, or any planned extracurricular activities after the completion of the workshop.

Most importantly, it is a good idea to indicate an application deadline to ensure that students apply on time.

4.6 BE(A)ST approach with personalized paths

The key objective for the research team is to identify the characteristics of each profile and then propose a specific set of tools that are best suited to help the student overcome the obstacles s/he faces. As a result, for each of the four student profiles, a tailored route was generated. As presented in the following figures, a set of tools is proposed to assist the student in each of the stages of the career design process: Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, Career Prototyping and Testing.

For every proposed tool included in the personalized paths, a more detailed version is available in Chapter 6: *Tools and techniques*. The process of creating a personalized path is illustrated in the following figures.

Table 4.2 A summary of the tools corresponding to the personalized career path of each student profile

Student Profile	Self-Reflection	Professional Identity Definition	Career Scenarios Exploration	Career Prototyping and Testing
A	Life Dashboard, Talent Identification (adapted for the Self-Reflection stage), Well-Being Compass	Design Life Principles, Identify Your Values, Talent Identification (adapted for the Professional Identity Definition stage)	Decision Trees, Odyssey Plan	Personal Business Model Canvas
B	Change of Perspective, Good Time Journal, External Observer, Life Dashboard, Well-Being Compass	Design Life Principles, Set Goals (adapted for the Professional Identity Definition stage)	Odyssey Plan, Rich Pictures	Failure Reframe, Personal Business Model Canvas, Support Circle
C	Career Mind Mapping (adapted for Self-Reflection stage), Life Dashboard, Role Identification (adapted for the Self-Reflection stage)	Career Mind Mapping (adapted for the Professional Identity Definition stage)	Career Mind Mapping (adapted for the Career Scenarios Exploration stage), Odyssey Plan, Personal SWOT Matrix	Personal Business Model Canvas, Support Circle
D	Career Mind Mapping (adapted for the Self-Reflection stage), Change of Perspective	Design Life Principles, Career Mind Mapping (adapted for the Professional Identity Definition stage) Role Identification (adapted for Professional Identity Definition stage)	Decision Tree, Odyssey Plan, Personal SWOT Matrix	Failure Reframe, Personal Business Model Canvas

4.6.1 Profile A

Profile A, as previously noted, has a 'highly proactive' mindset when it comes to investigating a variety of career possibilities, but s/he does not evaluate these actions to determine if they indicate a deeper interest in them. In reality, these individuals may have a wide range of interests but lack a clear passion, which leaves them confused about what kind of job would be best for them. To address this stumbling block, the research team created a personalized path to help this student profile to reflect and become more conscious of their emotions while engaging in various activities as well as give those activities more attention before selecting them. These are the tools that have been chosen to achieve this goal:

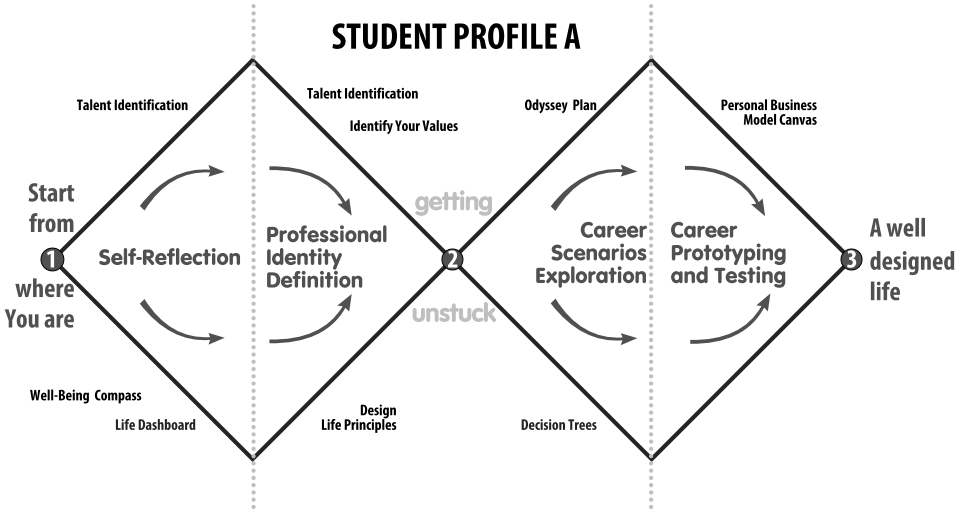

Figure 4.6 Personalized career path of Profile A student

Self-Reflection

1. Life Dashboard

This tool was included to help students become aware of their current circumstance and realize that now, where they are in life, is a good starting point for achieving their goals. In this exercise, Profile A will look at his current state in life from the three separate perspectives of work, leisure, and well-being. By doing so, he will receive important insights into what aspects of his life he is not satisfied with and work towards improving them. We incorporated this tool in the personalized path because one of the main objectives is to help the students approach the activities they do with more self-awareness.

2. Talent Identification (adapted for the Self-Reflection stage)
The *Talent Identification* tool is intended to assist a Profile A student in gaining a better grasp of her skills by recognizing personal capabilities and creating a picture of how she is seen by others. Effectively, helping the student in becoming more aware of her real interests is one of our main objectives. In this case, the student will select seven letters written by her loved ones, highlighting her positive attributes. The many letters and collective intelligence of the students' environment are used by this tool to reveal the talents as well as the social contribution of the student.

3. Well-Being Compass
In this tool, the student describes his image of 'work' and explains the reason for this employment/internship/even volunteer service. Questions such as "What do I want to get out of working?" and "What constitutes an excellent job?" are included. In this way, Profile A will have the opportunity to reflect and create a mental picture of the professional environment he sees himself working in, as well as confirm that his internal motivations and values are consistent with his future vision of himself.

Professional Identity Definition

4. Design Life Principles
In this tool, the student is encouraged to identify and record each of her life principles and compile a list that aims at developing a clear idea on the field she would like to work in once entering the labor market. Profile A will benefit from organizing what she previously learned into workable recommendations and converging them into Life Principles. Moreover, the discovered life values will then serve as guidance when designing her career path.

5. Identify Your Values
In this tool, the student is presented with a table including different values and is asked to identify the eight values that she considers most important in life. Profile A is encouraged to exercise self-awareness and think about what is important in her life. In the second stage, arranging the identified values in a hierarchy will help her both on a personal level (by clarifying the reason for certain attitudes and behaviors) and professional level (by improving decision making, as it helps her identify priorities).

6. Talent Identification (adapted for the Professional Identity Definition stage)
Following the Self-Reflection stage and the collection of the letters, the second stage of this tool will allow the student to identify the positive traits that have been described in each letter and are frequently appearing. By highlighting the attributes of the letters, the student will gain an objective view and identify his talents. Effectively, Profile A will obtain a unique viewpoint and better examine

each of his decisions and behaviors, both professionally and personally, while finding a connection with possible career paths.

Career Scenarios Exploration

7. Decision Trees
This tool will assist the students in defining alternative growth routes, depending on the conditions. Here, Profile A will need to draw alternative pathways to follow and actions to perform. As the Decision Tree clearly illustrates the many possibilities of the scenario under examination, the student will effectively plan and re-plan career alternatives, putting intention and thinking into the process.

8. Odyssey Plan
Another tool that supports the exploration of career scenarios is the *Odyssey Plan*. In this one, the student is asked to draw three different possible futures and the necessary activities to achieve them. Through this process, Profile A will develop awareness by evaluating three different paths for the next five years in terms of resources required and confidence in the plan. The student will need to answer questions such as "What would you do if you were compelled to make money starting tomorrow?" and "If you didn't have to worry about money or time, what would you do?" before selecting the best-fitting life plan among the three. This is a significant exercise that will allow Profile A to better understand alternative career paths and discern the most suitable one.

Career Prototyping and Testing

9. Personal Business Model Canvas
At this stage, the student needs to test the validity of the previously formed assumptions and determine if the options considered so far are truly suited to him. By utilizing this tool, Profile A will be able to determine the greatest fit between personal resources and market demands, resulting in a better decision regarding his future profession. In this way, the student will be assisted in his educational planning, the growth of a professional identity, and the development of a deeper grasp of the environment of the future employment position.

4.6.2 Profile B

As previously indicated, Profile B is a student who obtains good grades at university and therefore develops the feeling that although they have 'mastered' studying, they are unsure how to make a shift to the labor market. The ensuing confusion results in a lack of both career exploration and career decision-making. We built a personalized path of 12 tools to assist these students in becoming more active in career discovery and identifying their passions.

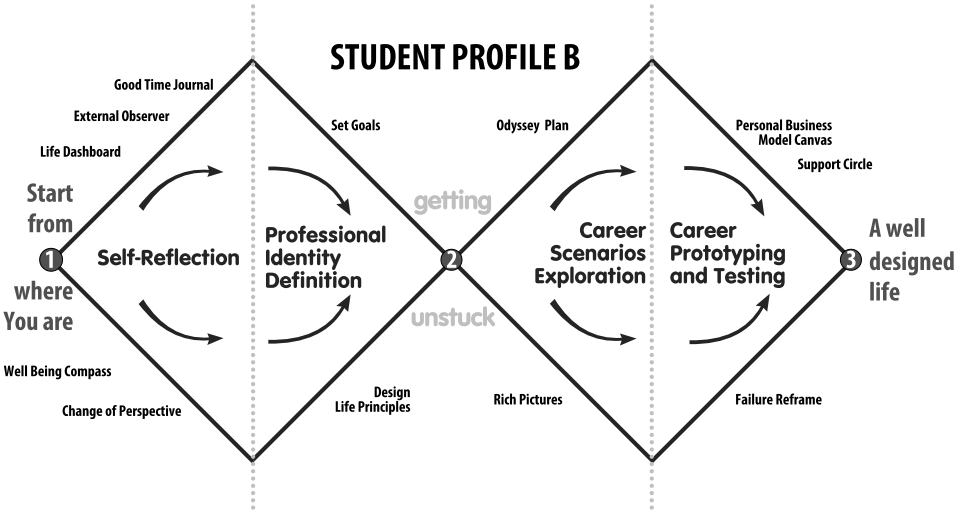

Figure 4.7 Personalized career path of Profile B student

Self-Reflection

1. Change of Perspective

As our ideas play such an important role in how we define ourselves, changing our beliefs about an event may affect our emotions and, as a result, our behavior. This tool was included in the personalized path of Profile B with the intention of raising the student's self-awareness and empathy, both of which are fundamental characteristics for being able to design one's future life.

2. Good Times Journal

This tool will assist the student in identifying the activities she associates with 'Energy' and 'Engagement,' while evaluating her level of engagement on two dashboards. Profile B is expected to profit from this tool by developing a greater understanding of the emotions she feels when engaging in specific activities or being in specific environments. As a result, the positive or negative reinforcement on this matter will help the student make future decisions more easily.

3. External Observer

This tool includes a semi-structured interview conducted in pairs. The main objective is to let the students recognize the lessons they have acquired through earlier tools and to help them understand how others think. This will enable Profile B to relate to other students and challenge his own points of view while receiving fresh viewpoints from the interviewer. We included this practice in the personalized path of Profile B, as it corresponds to his needs

for increasing self-awareness and understanding what could be a future job that makes him happy.

4. Life Dashboard
This tool was included to help the student become aware of his current circumstance and realize that his current life situation is a good starting point for achieving his goals. In this exercise, Profile B will look at his current state in life from the three separate perspectives of work, leisure, and well-being. By doing so, he will receive important insights into what aspects of his life he is not satisfied with and work towards improving them. We incorporated this tool into the personalized path as one of our main objectives for this student is to help him take action in experiencing professional environments. Only in this way will he be able to develop an understanding of what career is best suited to him.

5. Well-Being Compass
Here the student describes her image of 'work' and explains the reason for considering this employment/internship/even volunteer service. As we know, Profile B is hesitant to take action and explore professions. Thus, answering questions such as "What do I want to get out of my job?" and "What constitutes excellent employment?" would be beneficial in terms of becoming more aware of what her ideal career should look like. By the end of this practice, the creation of a 'long-term' document will assist the student in staying on track with the internal motives, values, and future vision for herself.

Professional Identity Definition

6. Design Life Principles
In this tool, the student will record each life principle and compile a list that will assist him in gradually developing a firm understanding of the industry and professional environment he would like to join once entering the workforce. By organizing what he has previously learned into workable recommendations and converging them into Life Principles, Profile B will be able to discover or consolidate his life values. This is essential, as life values will serve as guidance not only when designing his professional path, but also in his personal life.

7. Set Goals (adapted for the Professional Identity Definition stage)
Having analyzed and evaluated her current state in life in the 'Wheel of Life' included in the Self-Reflection stage of this tool, Profile B is now going a step further in defining the areas she wants to improve in her life. This is done by utilizing the SMART (Specific, Measurable, Achievable, Relevant, Temporal)

methodology to set her goals, framing them in a realistic and achievable context. In this way, the student can organize and break down big goals into measurable tasks that are easy to act upon.

Career Scenarios Exploration

8. Rich Pictures
In this tool, Profile B will define alternative paths of development (e.g., according to his current conditions in life) and draw alternative routes to follow and actions to perform. The student will benefit from this experience, as the main objective of this tool is to create graphs that clearly show the different possibilities of the situation under analysis (e.g., alternative and/or contingency paths of development). This is important for Profile B, as it assists him in exploring career scenarios and effectively planning career alternatives.

9. Odyssey Plan
We included this tool in the personalized path of Profile B, as it offers an effective approach to career exploration, which also happens to present a serious obstacle for this student. Here the student is asked to draw three different possible futures for the next five years and the necessary activities to reach them. Moreover, the student will need to answer questions such as "What would you do if you were compelled to make money starting tomorrow?" and "If you didn't have to worry about money or time, what would you do?" before selecting the best-fitting life plan among the three.

Career Prototyping and Testing

10. Failure Reframe
This tool was incorporated into the personalized path of Profile B as it will assist her in understanding that there are several types of failures. This is valuable since it enables her to recognize errors, categorize them, and understand the lessons that everyone can learn from failures in order to prevent her from repeating them in the future. In this way, the student will be encouraged to develop her resilience and keep going even if her chosen career route does not immediately work out.

11. Personal Business Model Canvas
At this last stage, Profile B will be asked to test the validity of the career paths created so far and understand if these options are truly suited for him. By utilizing this tool, the student will be able to determine the greatest fit between personal resources and market demands, resulting in a better understanding of his future profession. This is crucial for Profile B to grow his professional identity and develop a deeper understanding of the field of his future profession.

12. Support Circle
This tool is complementary to the *Odyssey Plan* and uses the students' close environment to collect ideas on issues that cannot be solved alone. More specifically, Profile B will be able to gather ideas following moments of personal reflection from other people, who may be part of her team (in the career design development process), her friends, fellows from university, or even family members. This *Support Circle* aims to help the student during brainstorming and to provide a network.

4.6.3 Profile C

As previously mentioned, Profile C has strong career ambitions while also demonstrating high proactive career behaviors in seeking out her professional path. Despite participating in many activities which she believes will be beneficial for achieving her goals, this student lacks support to fulfil her entrepreneurial ambition. To address these needs, we have developed a personalized career path consisting of nine tools which aims to create a support system for the student's start-up, helping her to become more open to feedback and plan and test her ideas.

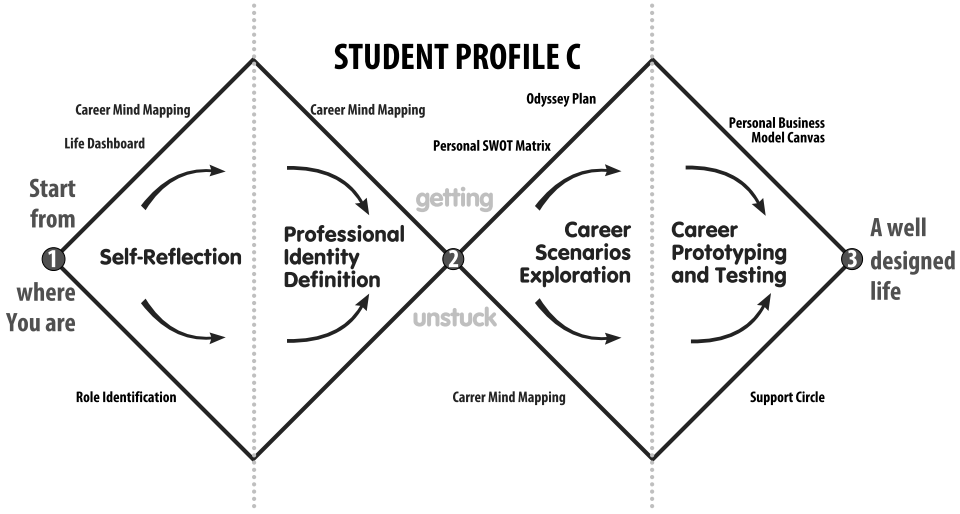

Figure 4.8 Personalized career path of Profile C student

Self-Reflection

1. Career Mind Mapping (adapted for the Self-Reflection stage)
This tool was chosen to assist Profile C in creating a mind map, which is particularly helpful in effectively organizing career planning. As a result this tool will be beneficial for the student insofar as it will enable her to investigate and manage her career path in a more methodical and organized way. Moreover, the

student is encouraged to conduct research on the existing career opportunities in the field(s) of interest and answer a series of questions regarding the professional environment she feels would be best suited to her personality.

2. Life Dashboard
This tool was included to help the student become aware of his current circumstance and to realize that his current life situation is a good starting point to achieve his goals. Helping Profile C assess his current state in life by looking at his circumstances from three separate perspectives – work, leisure, and wellbeing – will give him insights into what aspects he is not satisfied with and work towards improving them. This is significant, since a key component of the support offered to this student is helping him reflect on his feelings and open up to feedback.

3. Role Identification (adapted for the Self-Reflection stage)
This tool will allow the student to reflect on his personality, background, ambitions, goals, and talents, with the ultimate goal of discovering a link between all of these components and eventually identifying his exact role in society. We included this tool in the personalized path of Profile C to assist him in becoming more conscious of his personal motives in order to make the proper decisions when testing out his entrepreneurial idea.

Professional Identity Definition

4. Career Mind Mapping (adapted for the Professional Identity Definition stage)
In this section of the tool, the student is asked to reflect on the previous research conducted and move on with action planning and reviewing. Once Profile C has answered questions such as "What were the successes and mistakes of my past?" or "How have I grown from previous experiences?" she will move on to the monitoring part, where she will review and plan her past, current, and future reality. Having in mind the entrepreneurial spirit of this student, we incorporated this tool into the personalized path to help her effectively plan and re-plan her path, which is a significant part of developing a business and/or product. With this tool, Profile C will be able to conduct reviews regularly, e.g., after a work project or after a change in the work environment.

Career Scenarios Exploration

5. Career Mind Mapping (adapted for the Career Scenarios Exploration stage)
In the last stage of this tool, the student will focus on her personal development and plan the actions she needs to take in order to reach her goals. More specifically, Profile C is asked to brainstorm on the ways she can acquire useful skills for her career development and share her insight with her peers/professors and career advisors to

exchange opinions and seek additional guidance. This is an essential practice for an entrepreneur, as becoming more open to feedback will allow her to improve her ideas.

6. Odyssey Plan
We included this tool in the personalized path of Profile C to help him become more open to exploring alternative career paths. Despite having a set goal to create a start-up, the student might end up limiting himself to only a single career path. In this exercise, the student is asked to sketch out three different possible futures for the next five years and the activities necessary to reach them. Moreover, the student will need to answer questions such as "What would you do if you were compelled to make money starting tomorrow?" and "If you didn't have to worry about money or time, what would you do?" before selecting the best-fitting life plan among the three. At the end of the exercise, Profile C will have certainty about the career path he wants to pursue.

7. Personal SWOT Matrix
This tool will assist the student in framing the understanding of his strengths and weaknesses. This is an insight that is very valuable for students such as Profile C, with aspirations of creating a business. Here the student will benefit from discovering and analyzing his prospective opportunities and dangers and assessing the significance and conditions that impact his future, helping him to choose his professional activities more carefully.

Career Prototyping and Testing

8. Support Circle
This tool is complementary to the *Odyssey Plan* and uses the students' close environment to collect ideas on issues that cannot be solved alone. More specifically, Profile C will be able to gather ideas following moments of personal reflection from other people, who may be part of her team (in the career design development process), her friends, fellows from university, or even family members. We incorporated this tool into the student's personalized path to address her need in receiving support to fulfil her entrepreneurial dream of a start-up and creating a network within the university.

9. Personal Business Model Canvas
At this last stage, Profile C will be asked to test the validity of the created professional path and judge whether it is truly suited to him. By utilizing this tool, the student will be able to determine the greatest fit between personal resources and market demands, resulting in a better understanding of his future profession. This is crucial for Profile C to grow his professional identity and become certain that his start-up idea is the professional path he wants to pursue.

4.6.4 Profile D

As previously stated, Profile D is characterized by high career decidedness and low proactive career behaviors. This suggests that, while they have an idea for the professional path they want to take in life, they have a difficulty taking action to study this field. We have included a set of ten tools in their personalized career path to address the issue and assist this student in developing an action plan for earning professional experience.

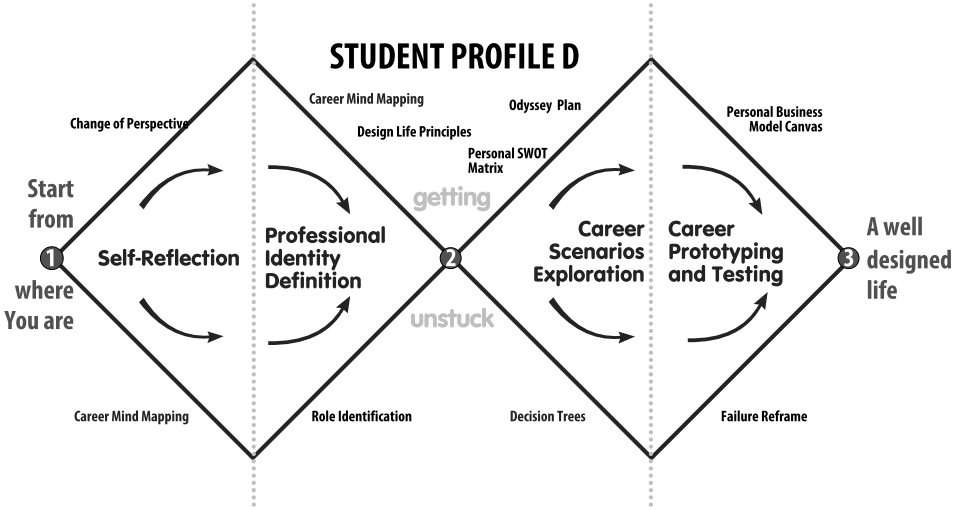

Figure 4.9 Personalized career path of Profile D student

Self-Reflection

1. Career Mind Mapping (adapted for the Self-Reflection stage)
This tool was chosen to assist the student in creating a mind map, which is particularly helpful in effectively organizing career planning. Effectively, this tool will be beneficial for Profile D since it corresponds to her need for finding the links between her passions and practical activities. Moreover, the student is encouraged to conduct research on the existing career opportunities in the field(s) of interest and answer a series of questions regarding the professional environment she feels would be best suited to her personality.

2. Change of Perspective
As our ideas play such an important part in how we define ourselves, changing our beliefs about an event may affect our emotions and, as a result, our behavior. This tool was included in the personalized path of Profile D with the intention of raising the student's self-awareness and empathy, both of which are fundamental characteristics for being able to design one's future life.

Professional Identity Definition

3. Design Life Principles
In this tool, the student will record each life principle and compile a list that aims at the gradual development of clear goals regarding joining a workplace. By organizing what she has previously learned into workable recommendations and converging them into Life Principles, Profile D will be able to discover or consolidate her life values. This is critical because life values may serve as a guide in career designing process. Lastly, the student will be able to determine whether she is certain about what she likes by being encouraged to open her mind and put out more ideas to ensure her assumptions are validated.

4. Career Mind Mapping (adapted for the Professional Identity Definition stage)
In this section of the tool, the student is asked to reflect on the previous research conducted and move on with action planning and reviewing. Once Profile D has answered questions such as "What were the successes and mistakes of my past?" or "How have I grown from previous experiences?" he will move on to the monitoring part, where he will review and plan his past, current, and future reality. Keeping in mind that this student is hesitant to take action, we incorporated this tool into the personalized path to help him effectively plan and re-plan his professional path, an exercise that will help the student break down this challenge into small manageable steps.

5. Role Identification (adapted for Professional Identity Definition stage)
In this stage of *Role Identification*, the student goes a step further on his exploration path by identifying his role in society. Through brainstorming, the question he will need to answer is not only "What are my talents?" but "Who needs my talents?" / "For whom are my talents useful?" With this tool, Profile D will be able to find the links between his passions and practical activities, and thus, move to action.

Career Scenarios Exploration

6. Decision Trees
We added this tool to the personalized path of this student to assist her in defining alternative growth routes, depending on the conditions. Here, Profile D will need to draw alternative pathways to follow and actions to perform. Since the Decision Tree clearly illustrates the many possibilities of the scenario under examination, the student will build a precise action plan for earning additional professional experience while planning and re-planning career alternatives.

7. Odyssey Plan
In this tool, students are asked to draw three different possible futures as well as the necessary activities to reach them. Moreover, it assists students in developing

awareness by requiring them to evaluate three different paths for the next five years in terms of resources required, confidence in the plan, and answering questions such as "What would you do if you were compelled to make money starting tomorrow?" and "If you didn't have to worry about money or time, what would you do?" before selecting the best-fitting life plan among the three.

8. Personal SWOT Matrix
This tool will assist the student to frame the understanding of his strengths and weaknesses. This is an insight that is very valuable for students such as Profile D, who are aware of the field they would like to work in. In this case, the student will benefit from discovering and analyzing his prospective opportunities and dangers and assessing the significance and conditions that impact his future, helping him to choose his professional activities more carefully.

Career Prototyping and Testing

9. Failure Reframe
This tool will assist the student in understanding the several types of failures and becoming open-minded when it comes to facing rejection. This is valuable since it enables her to recognize errors, categorize them, and understand the lessons that everyone can learn from failures in order to avoid repeating them in the future. In this way, the student will be encouraged to take action in career exploration, keeping in mind that failures are a part of life and do not define who she is. With this practice we expect Profile D to develop her resilience and keep going even if her chosen career route does not immediately work out.

10. Personal Business Model Canvas
At this last stage, Profile D will be asked to test the validity of the created professional path and discern whether it is truly suited to him. By utilizing this tool, the student will be able to determine the greatest fit between personal resources and market demands, resulting in a better understanding of his future profession. We incorporated this tool into the personalized path of Profile D as it will allow him to grow his professional identity, test his developed action plan, and determine whether this professional path is the one she wants to pursue.

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CHAPTER 5

Course outline

Abstract
The model in which a person obtains a stable occupation after formal education has been replaced by the need to build many, often divergent individual development paths throughout one's working life. This shift poses a huge challenge for higher education institutions: universities must now move from the mode of 'mass production' of a workforce to an approach that treats students individually with respect to their interests, values, passion, and character traits. The innovative Personalized Career Development (PCD) course aims to develop an individual student's skills in planning his/her educational path and professional career using the *Design Thinking* framework and supporting techniques. Using this course, universities can prepare students to be more agile in educational track individualization and increase students' adaptability in the process of conscious career development.

Keywords: Business Model Canvas, Design Thinking, BE(A)ST Project, career design, career design tools, career awareness, Personalized Career Development course

As indicated in Chapter 2, there are two main aims of the BE(A)ST approach:

- To provide a framework that enables students to develop a business model mindset and flexibility in dealing with *wicked problems*, planning their educational track, and developing their careers; and
- to provide a toolkit for supporting activities that help individualize the educational track and career design, as well as account for the student's lifecycle stage and level of personal and professional awareness.

All of the previous chapters have emphasized that an important value proposition of the BE(A)ST approach is to provide professors and career counselors with precise and proven guidance for developing students' career awareness. The BE(A)ST approach explains how university career counselors can organize educational processes to provide students with a unique style of support, in part by

continually updating their knowledge in relation to the demands of the job market. A key tool to deliver the value proposition offered by the BE(A)ST approach is a Personalized Career Development (PCD) course program. The course program was developed and tested in 2019–2021 in an international environment. The research team designed a course with the main goal of creating a customized 'career awareness' plan for each student. It covers all the key areas, combining them in one BE(A)ST approach:

- Discovering students' interests, abilities, and passions.
- Prototyping a *Personal Business Model* that determines the relationship between character traits and the specificity of the job position.
- Planning and designing an educational path and professional career based on a *Personal Business Model*.

This chapter presents a course designed to be completed in one semester (1st Format referring to Chapter 3). The course is currently being offered by:

- The University of Modena and Reggio Emilia (UNIMORE),
- The University of Information Technology and Management (UITM),
- The Polytechnic Institute of Portalegre (IPP).

The content of the course is continuously being improved based on feedback and observations made by the academic staff. The authors believe that the course curriculum described in the following sections can be successfully adapted by any higher education institution in the world. The developed course is universal in nature but allows for a variety of adaptations, the most popular of which are described in the following section.

5.1 Course idea

5.1.1 Course aim & stakeholders

The PCD course is designed to help academic students to become more conscious and aware in designing their future. Raising students' consciousness and awareness in the process of designing their future careers is a crucial activity at university. Unfortunately, however, it still remains underestimated within classic academic career guidance processes.

The PCD course aims to help students to figure out what they are really interested in, identify potential career paths, and build a personal, unique, sustainable, competitive advantage in a changeable work environment. It allows students to define multiple value propositions and select their first major career paths after graduation. The course also helps to re-frame work and career development, to think of 'career' not as a single job or a string of jobs, but as a portfolio of formative experiences designed to develop the student's awareness, skills, and connections. The knowledge areas involve thoughtful self-assessment, job market opportunities

exploration, prototyping and experimenting with career paths. The main idea of the course is that the process is continuous, systematic, and oriented towards a satisfying working life as part of their greater personal development plan.

Typically, student groups are quite large in the delivery of an academic course. Chapter 4 outlines the four student profiles (A, B, C, D). Ideally, the academic teacher should make a diagnosis of the student group and, based on this diagnosis, propose different tools to each category. In the presented course program, flexibility is possible and even recommended. However, if it is impossible to divide the course due to internal university regulations, the implementation of the program according to the proposed syllabus by selecting a set of the same tools will also be beneficial for all types of students.

The primary stakeholders for whom this course is designed are young people – students. However, thanks to the program's high scalability and universality of the content, the course can also support stakeholders from different organizations such as schools (primary and secondary), enterprises and public institutions (HR departments in particular), labor/career consulting offices, etc., involved in designing courses, modules, programs to help people advance in their careers. The course can be designed and implemented as a short-term course or as a part of broader initiatives to support professional identity discovery, career development, design, redesign, and to offer opportunities for additional training and courses. Examples of possible scenarios for tailoring the course program to these target groups are presented in Section 5.3: *Different scenarios of implementation*, Section 5.4: *Customization scenarios*, as well as in Appendix 4–7.

5.1.2 PCD course program

The methodology developed for this course comprises three modules:

MODULE 1: SELF-REFLECTION
Module aim: Focusing on individual Workview and Lifeview to deepen the understanding of what is really meaningful for each student. This is the initiation of an empowerment process that enables students to discover their skills, attitudes, core beliefs, values, and interests.

Topics covered in the module:
Topic 1: Setting the stage for professional work
Topic 2: Introduction to *Design Thinking*
Topic 3: Methods and techniques of the *Designing Your Life* approach

MODULE 2: PROFESSIONAL IDENTITY DEFINITION
Module aim: To demonstrate possible career paths based on the student profiles examined earlier. To make students reflect on different career paths and the

ambiguity of profile diagnosis. To demonstrate corporate social responsibility and the employee as one of the key challenges in the twenty-first century.

Topic 4: Professional identity definition

MODULE 3: CAREER SCENARIOS EXPLORATION

Module aim: Exploring and analyzing the job market and understanding potential main paths and trends by using specific job search techniques.

Topics covered in the module:

Topic 5: Discovering the opportunities of the local/global labor market

Topic 6: Thinking about professional development and education paths in terms of business models

MODULE 4: CAREER PROTOTYPING AND TESTING

Module aim: Providing students with a better understanding of their personal resources from the perspective of professional identity and related future employment opportunities in selected job positions, as well as planning an educational path based on the didactic offering of the university, a business model for a specific job position and one's own *Personal Business Model*.

Topics covered in the module:

Topic 7: Prototyping a *Personal Business Model*

Topic 8: Planning an educational path based on that *Personal Business Model*

PROJECT WORK

The project focuses on identifying main gaps in terms of skills and knowledge by comparing *Personal Business Models* with educational plans.

Aim: generating multiple ideas, applying an iterative approach towards the development of a solution by analyzing potential failures, defining a future feasible action plan by putting together the lessons learned in practice with the theoretical tools mastered during the course.

Topic covered: Developing a *Personal Business Model* and career plan

5.1.3 Course scalability

We posit that this PCD course enables the creation of introductory courses that can address large numbers of students studying different topics, regardless of the academic degree (e.g., Bachelor's, Master's) and study format (e.g., full-time, part-time, postgraduate studies). Here, scalability is defined on three levels as the ability to:

- increase the number of users without negatively affecting quality and while still meeting course objectives. Although the course program was designed and tested among computer science (and related) students, due to the universality of the modules, it is possible to implement it in any field of study

at a university with any specification. This allows for high course scalability. The authors recommend implementing the course as a university-wide subject for all university students;
- implement the course in other kinds of organizations, such as: institutions representing other levels of education (primary, secondary schools), enterprises, career consulting offices, public institutions, or non-governmental institutions. The course can be an independent training unit that allows for planning and/or re-planning a career for various stakeholders;
- flexibly adapt of the content (enlargement & reduction) depending on the number of hours allocated for the subject or depending on the needs of users taking part in the course.

Scalability is understood as flexibility in content and is one of the most important value propositions of this course. In each module there is content that is obligatory as well as content broadening (going deeper into) the subject. Depending on the number of hours, the teacher can choose the form in which the learning tools will be implemented (as more difficult assignments or as simple ones).

5.1.4 Environment

The PCD course is both a human-centered and an interaction-based course. Human-centered means that students, the course's recipients, are considered and understood in a more holistic way. In fact, the course relies on 'design methods' that employ both divergent and convergent thinking regarding how the students themselves attribute and reflect on meanings, values, and beliefs. Interaction-based means that the main aim of the facilitators is not to provide content (although this role is by no means revoked – facilitators are still expert professionals whose perspective is precious to students); it is rather to create an environment in which students can engage in dialogue around the different topics that are brought up in each class. It is through the establishment of various sorts of interactions and approaches that content is learned: through peer-to-peer interaction, individual reflections and, last but not least, hands-on experience (Balboni et al. 2021).

During the course, teachers are asked to set up an environment that allows students to engage in group presentation, collective discussion, individual reflection, one-on-one interaction, individual and group work. The environment should be conducive to assisting students in:
- discovering their personal strengths and abilities,
- discovering and understanding the job market and professional development opportunities,
- encouraging prototyping and testing different career opportunities.

It is required to use props and tools to meet specific objectives and learning outcomes of the course modules. The teacher should ensure that all the necessary

workshop materials are in place. The props and formatted tools designed for this course help students move more assuredly through the process. To empower and engage course users, it is recommended to use the following props:

- paper,
- markers (sharpie recommended),
- post-its (38×50 or 51×51),
- flip charts and whiteboards,
- tools templates (A2, A3, A4 format – depending on the tool).

Due to the fact that the entire course is conducted using the *Design Thinking* method, it is also recommended to have a proper space arrangement, i.e., to be in rooms that allow for group work. When working on some of the topics it is also possible to work outside the formal classroom, for example in the open air.

5.1.5 Validation of the learning outcomes

In 2008, the *Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning* (2008) was published (henceforth: EQF). EU member states were advised to reference their national qualifications frameworks to the European Qualifications Framework. The EQF introduces a learning outcomes approach that facilitates the validation of acquired qualifications. The learning outcomes are defined as "statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence," whereas a qualification is defined as "the formal outcome of an assessment and validation process obtained when a competent body determines that an individual has achieved learning outcomes to given standards." Validation requirements may be defined for the qualification or separately for each set of learning outcomes. In the case of the *Business Model – I, Passionate IT Professional* course, knowledge, skills, and competences for each module were identified and analyzed and appropriate methods were proposed, confirming that the specific learning outcomes have been attained. The learning outcomes for each module are presented below.

Table 5.1 Learning outcomes assigned to the course modules

Learning outcomes Upon successful completion of this module, students will be able to:
MODULE 1 – SELF-REFLECTION
Topic 1: Setting the stage for professional work
• Do 'self-reflection' and 'thinking' for understanding the *Design Thinking* approach better • Understand the 'problem space' of career development and start dealing with ambiguity and complexity

• Discover self-efficacy that includes beliefs in one's capabilities to mobilize the motivation, resources, and actions needed to meet given situational demands • Design and reflect on the Workview and the Lifeview canvas
Topic 2: Introduction to Design Thinking
• Deal with ambiguity and complexity of a real *wicked problem* (their own personal career development) • Understand the DT approach • Apply user research tools, such as observation and 'journey mapping'
Topic 3: Methods and techniques of Designing Your Life approach
• Gain a deep understanding of their personal resources, needs, and expectations • Practice with the first phase of the DT/DYL approach, research and problem definition, through hands-on experience • Gain insights from research in order to identify needs • Validate insights and assumptions with further research
MODULE 2 – PROFESSIONAL IDENTITY DEFINITION
Topic 4: Professional Identity Definition
• Discover professional values and identity • Identify impact of the environment in which the student works
MODULE 3 – CAREER SCENARIOS EXPLORATION
Topic 5: Discovering the opportunities of the local/global labor market
• Explore career scenarios in a more conscious way • Analyze the job market • Detect main trends and emerging jobs and professions • Build their own mind map vis-à-vis job opportunities
Topic 6: Thinking about professional development and education path in terms of a business model
• Explain the importance of the various components of the *Business Model Canvas* and the links between them • Prepare the canvas of the business model of the enterprise in which the student works (or plans to find employment) • Explain what kind of workers are needed to operate a given company • Present the canvas of the business model of the selected enterprise in the public forum and obtain its approval
MODULE 4 – CAREER PROTOTYPING AND TESTING
Topic 7: Prototyping a Personal Business Model
• Develop prototypes of a *Personal Business Model* using the canvas template • Analyze the created models from the perspective of the chosen professional identity, personality traits, interests, and passions • Make changes and improve the *Personal Business Model* in the context of the current professional situation and the level of acquired knowledge and skills

• Plan own educational path based on the range of didactic services of the university and a *Personal Business Model* for the selected job position/profession
Topic 8: Planning an educational path based on a Personal Business Model
• Identify skills and knowledge gaps using the *Career Canvas Catalog* and *Personal Business Model* • Analyze the importance of the subjects in the study program for their future professional career • Analyze the study program and evaluate it in terms of matching it to their interests and passions • Identify key areas of student development as well as related topics • Plan their educational path based on the didactic services of the university and a *Personal Business Model*

5.1.6 Pre & post-tests – self-reflection tool

The self-reflection tool has been developed in order to better understand the students' initial awareness of their own passions and career orientation before the PCD course and to evaluate the effective outcomes of the course.

This was structured into two sections:

- PART 1. Before the training course a first questionnaire is administered to analyze the student's awareness about:
  a. talent/passions
  b. self-confidence
  c. activities already developed to increase individual awareness
  d. specific features and characteristics of ideal job
  e. emotions/sensations connected to future career development
- PART 2. A second questionnaire, administered after the training course, is based on the same dimensions/questions (from q. 6 to q. 22) as the first one in order to evaluate any growth in the individual's understanding of future career and orientation. Some additional questions are added to assess the overall satisfaction with the training course.

In the domain of knowledge, the tool:

1. *enables teachers to:*
   – understand the students' initial awareness of their own passions and attitudes
   – evaluate the overall enhancement/change in terms of participants' awareness and attitude generated by the training course (big picture)
   – evaluate the individual enhancement/change on the basis of the main differences before and after the course
2. *enables students to:*
   – better evaluate their initial awareness in terms of career development

– map their learning process within the training course and reflect on the individual.

In the domain of skills, the tool:

1. *enables teachers to:*
   – improve specific sections of the training course
   – develop student-specific activities/tasks on the basis of specific gaps/lacks
2. *enables students to:*
   – better understand the reflection process that is at the core of the training course
   – be better equipped to explore career opportunities on the basis of their reflection.

The entire questionnaire can be found in Appendix 1.

5.2 Course syllabus

The PCD course is designed as a course that could be a part of the university's range of educational services. It is addressed to all students regardless of their year of study, major, or degree. Due to the possible scalability of the course (see Section 5.4: *Customization scenarios* and lesson plans in Apendices: one may implement only obligatory assignments or complement them with additional and non-obligatory assignments), the course can be completed within the time of 12 to 50 class hours.

The course's main objective is to develop skills in terms of individual planning of the educational path and future professional career using the *Design Thinking* framework, supporting techniques that develop creativity and entrepreneurship as well as thinking in terms of a *Personal Business Model*.

The specific objectives are:

1. To transfer knowledge about the process, techniques, and tools for planning the educational path, and a vision of professional development based on the specificity of the working environment and requirements for the future profession (job position or group of job positions) with emphasis on social responsibility.
2. To develop skills in the use of techniques supporting the discovery of one's own interests, abilities, and passions, as well as determining the relationship between character traits and the specificity of the job position, which significantly affects the level of job satisfaction and professional fulfillment.
3. To develop skills in the use of *Business Model Canvas* and *Personal Business Model Canvas* techniques in the process of planning and designing the educational path and professional career.

The Bologna Process requires that student-centered learning be supported by clear descriptions of learning outcomes. They make it clearer both to academic

staff and students what they need to achieve. In the area of acquisition of skills and competences, the following learning outcomes were assumed:

Learning outcomes in the field of skills:

- Upon the successful completion of the course, students will be able to freely use the concepts and ideas related to work, career planning, social responsibility of employees and organizations, as well as techniques used in planning the educational trajectory and professional development.
- Upon the successful completion of the course, students will be able to use techniques to identify and analyze their interests, passions, abilities as well as relationships between characterological predispositions (personality type) and the specificity of the working environment.
- Upon the successful completion of the course, students will be able to use the *Business Model Canvas* technique in the process of planning their educational trajectory and career design.
- Upon the successful completion of the course, students will be able to search for information on selected characteristics of the labor market and use them in analyses related to the development of professional skills and key competencies as well as planning career development.

Learning outcomes in the field of social competence:

- Upon the successful completion of the course, students will understand the need for continuous learning and developing professional, personal, and social competences.

A detailed program of the course can be found in Appendix 2.

5.3 Different scenarios of implementation

The PCD course is flexible enough to allow for many different styles and formats of implementation.

I. A course addressed to different target groups/levels of education:
   - Higher education: it could be addressed to large numbers of students in different majors, regardless of the academic degree (e.g., Bachelor's, Master's) and study format (e.g., full-time, part-time, postgraduate studies).
   - Primary, secondary education: it could be addressed to young people as a part of a compulsory subject (e.g., a subject offered in Polish secondary schools called "*Basics of Entrepreneurship*"), as a short-term additional course, or as a part of initiatives carried out by school career counselors.
   - Enterprises, public institutions: it could be addressed to employees as a part of internal development programs as an independent training unit that allows for planning and/or re-planning employees' careers.

- Career consulting offices: as a part of professional services designed to help clients with career decision-making and development, planning and/or re-planning their careers.

II. A course introduced in different forms:
- As a separate compulsory/elective subject that is included in the study program, for which learning outcomes are defined and verified by appropriate methods, which is attended by students during the whole semester/year.
- As a short-term course – an intensive sequence of learning activities offered over a short period of time (additional course for students or other target groups).
- As an e-learning module – a self-contained unit which is available to students on a learning platform independent of place and time.
- As an introduction of selected parts to other subjects/courses.

III. A course with different aims:
- A course for people seeking help with:
  - discovering their professional identity based on their interests and passion
  - building/increasing awareness of educational direction and preferences for their professional life
  - choosing a specialization/next steps of education and determining the importance of different subjects with regard to professional identity
  - discovering the opportunities of the labor market (local, national, global)
  - selecting an occupation consistent with professional identity
  - checking fit between personal resources (skills, abilities, knowledge, etc.) and the labor market requirements regarding the occupation planned.
- A course addressing fully aware, self-developing people wanting help in:
  - developing and improving skills associated with professional identity
  - lifelong learning awareness
  - nurturing a development attitude
  - shifting their career development plans (career pivot)/education track.

5.4 Customization scenarios

The developed course can also be successfully applied outside the field of higher education.

5.4.1 Employment bureaus

Institutions that support job seekers, such as employment bureaus, provide training for the unemployed to improve their professional and other qualifications that will increase their chances of getting or keeping a job or starting their own business.

People who use the services of such offices are characterized by different training needs, depending on their situation. People who apply for assistance most often:

- do not have professional qualifications
- face the challenge of changing or supplementing their qualifications
- have lost the ability to perform work in the current profession due to, for example, changes in the labor market, age, or health problems
- have difficulties with employment due to lack of skills to actively seek a job.

People seeking employment assistance are classified into specific groups and assigned categorized forms of assistance. This category-based approach eliminates the individual and subjective treatment of job seekers, and thus results in low effectiveness.

The duties of the employment bureaus also include monitoring the local labor market, e.g., monitoring deficit and surplus occupations, examining the reasons for an increase or decrease in the number of the unemployed, analyzing job offers and the structure of unemployment. To carry out these activities effectively, employees need simple, effective tools.

The PCD course responds to the needs of employees in employment bureaus in terms of individualizing their assistance to the unemployed. The tasks described in the scenarios can be used during group training and individual sessions. An advantage of the developed tasks is their simplicity. Unemployed people often have problems understanding official tools used in the process of vocational counseling.

These are some of the benefits that the PCD course yielded for employment bureau staff:

- support in counseling and advising job seekers in areas such as labor market requirements, analyzing, designing, redesigning, and developing profiles of unemployed people
- visual thinking tools, such as PBMC, make it possible to clearly present the requirements of the labor market to unemployed people in a convincing and attractive way
- having a catalog of PBMCs for different occupations simplifies the process of finding the best match between unemployed people's personal resources and available job opportunities
- PBMCs can be used as a tool to elicit market requirements during meetings with employers and assist in the process of gathering information about missing skills important to employers. This should improve the correlation between the presented offer and the actual requirements of the labor market
- PMBC can be used with other standard tools used by employment bureaus as a complementary technique
- increasing the prestige of the unit by being able to offer a modern course.

A detailed workshop scenario for employment bureaus can be found in Appendix 4.

Other possible scenarios using the materials developed in the PCD course:
- Training of employment bureau staff in preparing a catalog of *Personal Business Models* related to jobs relevant to the unemployed.
- Workshops for employers conducted by staff of the employment bureau. The purpose of the workshops is, in consultation with employers, to prepare career maps for internships, apprenticeships, or job openings offered by the employer's company, which will make it possible to find the right employee more quickly. The prepared career maps are presented to unemployed persons during their visits at the employment bureau.

5.4.2 Corporate HR departments

Today's businesses face many employment issues. These include:
- baby boomers retiring
- increasing average age of employees
- the need to hire young people from Generation Z, who have very different values than their parents and grandparents
- digital transformation of companies and the increasing involvement of technology in the performance of everyday activities
- major crises such as the global COVID-19 pandemic
- increasing competition for the best qualified employees.

HR departments responsible for recruiting new employees and talent development must use new tools to meet their responsibilities to management and employees at different stages of their professional development. The PCD course can easily be adapted to the needs of HR departments; more than a dozen usage scenarios are possible. The BE(A)ST approach can also provide a reference model for training activities and can complement other techniques or tools used for similar purposes.

Scenario 2A – Employee training on career planning within the company
One of the basic activities of the HR department in a company is to develop the skills of employees. Instead of engaging in the time-consuming and expensive recruitment process to acquire new employees, it is very often better to use existing human resources by providing training for employees to improve their professional competencies and by discovering the hidden talents of employees and moving them to positions matching their passions and skills. In this way, the company meets the developmental needs of employees. An employee who feels valued by the employer and is supported in non-standard career development decisions is a more effective employee. Investment in employee development results in greater job stability. Talented employees enable the organization to innovate and perform well in all areas, which results in increased value to the company.

Benefits for employees taking the course:
- better understanding of their own training needs related to their personal resources in terms of skills and knowledge
- better ability to plan one's own career path
- understanding how the company's business model and *Personal Business Model* are linked, which contributes to greater productivity.

Benefits for HR departments:
- better matching of the content of offered training classes to the actual requirements of employees and the employer
- validation of the content and scope of training with specific knowledge areas and skills needed for particular job positions
- better understanding of employees' personal resource needs in terms of skills and knowledge, making them increasingly aware of their professional identity
- a sense of professional satisfaction associated with watching employees grow professionally.

A detailed workshop scenario 2A can be found in Appendix 5.

Scenario 2B – Training employees on corporate and employee social responsibility

HR departments are increasingly engaged in working with the generations Y and Z. These individuals value continuous development, but not at the expense of their private lives. The ideal for them is to achieve a balance between professional and private life. Salary is not the most important motivating factor for them. Equally important is the ability to pursue one's passions, a successful family life, work in accordance with ethical beliefs, and care for the fate of the planet. In order to keep the talents of generations Y and Z in the company, the company should offer trainings:
- to increase the innovation and creativity of employees
- that allow them to identify and strengthen their talents
- that demonstrate the role of social responsibility for employees.

The PCD course modules on *Design Thinking* methods and techniques and *Designing Your Life* and socially responsible employee respond to the training needs formulated above.

Generations Y and Z are accustomed to attractive forms of communication and cannot imagine everyday life without modern technologies. The use of social media, blogs, videos, video messages, etc. makes the training offered by the company more attractive. Within the company, physical training is valued, but digitally interactive elements should be integrated.

Benefits for employees taking the course:
- being able to put themselves in another person's shoes in order to redefine their approach to social responsibility

- gaining the ability to find multiple solutions to the same problem and to choose the more appropriate one in terms of social responsibility
- increasing self-knowledge in order to better understand the challenges of social responsibility
- insight into why it is important to tackle social responsibility issues in order to create more and better business opportunities
- understanding the impact of the environment in which the employee works.

Benefits for HR departments:

- having employees able to look at a problem from different perspectives in order to understand the different sides of a social responsibility issue or action
- more innovative and creative employees who are able to be proactive at work, leading to an improved value proposition for the company.

A detailed workshop scenario 2B can be found in Appendix 6.

Scenario 2C – Training managers in preparing job offers

The right selection of employees is reflected in a company's financial performance. Business success largely depends on recruiting the right people for the right jobs. Every company hires employees based on various types of contracts. The old model of full-time employment is no longer dominant; short-term agreements, contracts, or using outsourcing companies are equally popular. The labor market is changing dynamically, and high employee turnover is becoming the norm. The recruitment and selection process is very time-consuming and expensive, and does not guarantee the selection of the right person. A common problem is misunderstanding the needs of the company. Analysis of job advertisements shows the occurrence of the same trite formulas regardless of the proposed position.

Selected modules of the PCD course can be used as a workshop program aimed at managers of individual departments, so that they are able to accurately formulate requirements for future employees.

Benefits to managers from the implementation of the course:

- understanding of BMC and PBMC techniques and their application to job/job descriptions by linking key activities performed by companies to requirements for employees' skills/knowledge of specific knowledge areas
- being able to create reference job canvases facilitates more frequent recruitment of the right people
- understanding the dynamics and variability of PBMC depending on the company's growth strategy
- less effort needed for recruiting a new employee who meets the requirements.

Benefits for HR departments:

- ability to prepare more precise job offers, which shortens the initial selection of employees

- improved communication with managers
- possibility of using reference job canvases during the recruitment of interns at universities.

A detailed workshop scenario 2C can be found in Appendix 7.

Appendices

Appendix 1 Self-Reflection questionnaire

At the end of the course, the program facilitator/teacher can use this reflective tool.
The tool has to be filled individually by students, and answers are analyzed in small groups (students shall not be forced to share their personal thoughts).

1. How satisfied are you with your experience of the PCD training course?
   Fully dissatisfied 1 2 3 4 5 Fully satisfied
2. Did you enjoy participating in the training course?
   Fully disliked 1 2 3 4 5 Fully enjoyed
3. What exercises (if any) did you identify as impactful on your path and why? (short answer)
4. Which moments of the course (if any) would you identify as relevant moments for your career path? (short answer)
5. Is there anything else that you would like to share about your experience as a participant in this course? (short answer)

Appendix 2 Course syllabus

This course syllabus shows an overview of course information including the course name, course objectives, learning outcomes, and course content.

1. Basic information

Course name	***Personalized Career Development (PCD)***
Course objectives	To develop the skills to plan an individual educational path and future professional career using the *Design Thinking* framework and supporting techniques that develop creativity and entrepreneurship as well as thinking in terms of a *Personal Business Model*.
Forms of classes	practical classes, project
Number of hours	8h – 50h (with flexible condensation or further expansion)
Number of ECTS points	1–3 ECTS

2. Course objectives

O1 – to transfer knowledge about the process, techniques, and tools for planning an education path and a vision of professional development based on the specificity of the working environment and requirements for the future profession (job position or group of job positions) with emphasis on social responsibility.
O2 – to develop skills in the use of techniques supporting the discovery of one's own interests, abilities, and passions, as well as determining the relationship between character traits and the specificity of the job position, which significantly affects the level of job satisfaction and professional fulfillment.
O3 – to develop skills in the use of *Business Model Canvas* and *Personal Business Model Canvas* techniques in the process of planning and designing the educational path and professional career.

3. Learning outcomes

LEARNING OUTCOMES IN THE FIELD OF SKILLS:
SK_01 – Upon successful completion of this course, students will be able to freely use the concepts and ideas related to work, career planning, social responsibility of employees and organizations as well as techniques used in planning the path of education and professional development.
SK_02 – Upon successful completion of this course, students will be able to use techniques to identify and analyze their interests, passions, abilities as well as relationships between characterological predispositions (personality type) and the specificity of the working environment.
SK_03 – Upon successful completion of this course, students will be able to use the *Business Model Canvas* technique in the process of planning their education path and career design.
SK_04 – Upon successful completion of this course, students will be able to search for information on selected characteristics of the labor market and use them in analyses related to the development of professional skills and key competencies as well as planning career development.

LEARNING OUTCOMES IN THE FIELD OF SOCIAL COMPETENCE:
SC_01 – Upon successful completion of this course, students will understand the need for continuous learning and for developing professional, personal, and social competences.

4. Methods of implementing the classes

Form of classes	Methods of implementing
Workshop	Classes run in small teams, using active methods in the *Design Thinking* framework and supporting techniques.
Project	Preparation of analyses in given areas and presentation of results on a group forum.

5. Course content

Workshop

No.	Workshop Contents
MODULE [1] – SELF-REFLECTION	
T1	***Setting the stage for professional work*** *Content:* → What is work? → The difference between shallow work and deep work. → Activities vs. values. → Professional identity vs. job position. → Changes in employment forms – full-time work vs. temporary (project) work. → The role and importance of being entrepreneurial in the process of vocational education and career development. → Possible work styles depending on the stage of career development.
T2	***Introduction to Design Thinking*** *Content:* → The essence of *Design Thinking*. Why use DT in planning your educational path and future career? → The process and stages characteristics – the objectives of the stages, products and specificity of the actions taken. → Techniques used at various stages of *Design Thinking*.
T3	***Methods and techniques of Designing Your Life approach*** *Content:* → Undertaking personalized paths based on students' profiles with the use of tools dedicated to the Self-Reflection stage: • Discovering interests, abilities, and passions. • Finding your WHY? • Discovering favorite activities, their type (e.g., analytical, creative) and environment (individual, group). • What kind of student are you?
Tools for the Self-Reflection stage: → AEIOU → Career Mind Mapping (Step I) → Change of Perspective → Cognitive Reconstruction → External Observer → Good Time Journal → Life Dashboard → Role Identification (Step I) → Set Goals (Part I) → Talent Identification (Step I) → Well-Being Compass	

MODULE [2] – PROFESSIONAL IDENTITY DEFINITION	
T4	***Professional Identity Definition*** *Content:* → Undertaking personalized paths based on students' profiles with the use of tools dedicated for the Professional Identity Definition stage. → Moment of reflection on the personalized path. → Definition of professional identity based on identified preferences. → Professional identity definition pitch. → Socially responsible employee. → Workshop based on LEGO® bricks.
Tools for the Professional Identity Definition stage: → Career Mind Mapping (Step II) → Design Life Principles → Identify Your Values → Role Identification (Step II) → Set Goals (part 2) → Talent Identification (Step II)	
MODULE [3] – CAREER SCENARIOS EXPLORATION	
T5	***Discovering the opportunities of the local/global labor market*** *Content:* → Undertaking personalized paths based on students' profiles with the use of tools dedicated to the Career Scenarios Exploration stage. → Analysis of local/global labor market trends. → Traditional and non-traditional job searching techniques. → Discovering institutions and organizations that create opportunities for the students in the labor market. → Creating a job finding opportunities map.
T6	***Thinking about professional development and education path in terms of business model.*** *Content:* → Analysis of the workplace context from the perspective of the company's business model (place of employment). → The use of a canvas in the analysis of relationships between a workplace (groups of positions) and key elements forming the business model of enterprises.
Tools for the Career Scenarios Exploration stage: → Career Mind Mapping (Step III) → Decision Trees → Odyssey Plan → Personal SWOT Matrix → Rich Pictures	

MODULE [4] – CAREER PROTOTYPING AND TESTING	
T7	***Prototyping a Personal Business Model*** *Content:* → Analysis of the career canvas catalog, choice of professional development direction based on identified interests, abilities, skills, and passions. → Creating the prototypes of *Personal Business Model Canvas* for a specific professional identity.
T8	***Planning an educational path based on a Personal Business Model*** *Content:* → Identification of skills and knowledge gaps based on the *Career Canvas Catalog* and *Personal Business Model*. → Analysis of the study program in terms of the relevance of subjects to future career. → Identifying key development areas and related subjects. → Analysis of majors or programs available in the field of study and their assessment in terms of fit with students interests and passion.
Tools for the Career Prototyping and Testing stage: → Failure Reframe → Personal Business Model Canvas → Support Circle	

Project

No.	Project content
PR	*Content:* As part of the project, each student individually develops the selected canvas of a *Personal Business Model* and prepares, based on online resources (advertising services, videos, papers, industry reports), an analysis of the market potential of selected job positions (group of job positions). Students prepare an outline of the plan of their educational path, indicating the subjects of greatest importance for professional development and the major that they would like to select. An important element of the project is also an analysis of strengths and weaknesses in terms of skills and areas of knowledge, as well as a plan for the development of weak areas by using the resources offered by the university (e.g., student research groups, scholarship programs, open lectures). The analyzed results are finally presented and discussed.

6. Correlation between learning outcomes, course objectives, and educational content

Learning outcomes	Course objectives	Educational content
SK_01	O1	T1, T2, T4, T5, PR
SK_02	O2	T3, T8, PR
SK_03	O3	T6, T7, PR
SK_04	O2	T5, T1, PR
SC_01	O1, O2, O3	T1 – T8, PR

7. Methods of verification of learning outcomes

Learning outcomes	Assessment method	Class format in which the learning outcome is verified
SK_01 SK_02 SK_03	Evaluation of the results of teamwork carried out during classes and discussions on the selection of theses and argumentation.	Practical classes
SK_04	Evaluation of completed project tasks prepared in the form of a report and presentation of the results of the analyses.	Project
SC_01	Observation and presentation of analysis results.	Practical classes

References

BASIC:
- Clark T., Osterwalder A., Pigneur Y. 2012. *Business Model You: A One-Page Method for Reinventing Your Career*, John Wiley & Sons, Hoboken.
- Osterwalder A., Pigneur Y. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*, John Wiley & Sons, Hoboken.
- Burnett B., Evans D. 2016. *Designing Your Life: How to Build a Well-Lived, Joyful Life*, Knopf, New York.

FURTHER READING:
- Newport C. 2016. *Deep Work: Rules for Focused Success in a Distracted World*, Grand Central Publishing, New York.
- Bolles R.N. 2020. *What Color Is Your Parachute? A Practical Manual for Job-Hunters and Career-Changers*, Random House USA Inc., New York.
- Kiyosaki R.T. 2012. *Why "A" Students Work for "C" Students and "B" Students Work for the Government: Rich Dad's Guide to Financial Education for Parents*, Plata Publishing, Scottsdale.
- Blake J. 2017. *Pivot: The Only Move That Matters Is Your Next One*, Penguin Books Ltd.

Appendix 3 Supporting materials

All materials can be found on the educares.eu website.

Handbook *Methodology of Conducting Classes Using the Design Thinking, Visual Thinking and Storytelling Methods*

The idea behind this handbook is to spur students to start thinking and reflecting from their current standpoint before projecting a vision of where they want to end up in order to make the most of what they currently have. This is a divergent approach to help students to envision alternative goals and select a hypothesis that they would like to test, as well as a proactive way to test their hypothesis. The main goal of the book is to help both academic counselors and professors to develop a course aimed at supporting the design process of students' careers. The methodology is based on entrepreneurial concepts and tools that

enable students to self-explore and design purpose-driven and meaningful careers in a global and evolving workplace.
The handbook includes detailed lesson plans for each module and course topic along with methodological guidelines. The handbook includes worksheets for students that can be printed by the course instructor.
Format: .pdf file
Applications: Module 1–3 (numbering based on Appendix 2).

Workshop on social responsibility based on LEGO® bricks
This is a four-hour workshop based on LEGO® bricks that allows the participants to understand the impact of the environment on the place where they work (employee or business owner). The lesson plan includes descriptions of six activities that make the participant aware of the consequences of socially responsible practices. Required to conduct the workshop are: LEGO® SERIOUS PLAY® Starter Kit, LEGO® SERIOUS PLAY® Identity and Landscape Kit, or any other sets of brick consisting of different elements (such as animals, wheels, tires, windows, trees, mini figure parts, tubes, globes, and small base plates), LEGO® SERIOUS PLAY® Connections Kit or strings of different lengths, colors (black, white, red), and thickness, or any set of LEGO® bricks consisting of different elements. It is recommended that the workshop be led by a person experienced in the LEGO® SERIOUS PLAY® methodology.

Format: .pdf file
Applications: Module 2, T4.

A series of six podcasts with IT professionals
For a part of the job/profession canvases from the career canvases catalog, a podcast was initiated to offer insights from specialists who work in certain professions. The podcasts take the form of interviews or discussions with specialists in which the interviewees share their own experiences concerning careers in various positions and talk about skills that allow one to climb the career ladder but at the same time to pursue one's own passions. Each interview was conducted according to a structured scenario: *Could you please introduce yourself and your organization? Can you summarize your career-critical moments? What are the most useful skills for your career development? What are the most important activities you do in your job?*
Format: .mp3 and .mp4
Applications: Module 2, T6; Module 3, T7, T8

IT Career Canvas Catalog
IT Career Canvas Catalog containing career canvases for the following professions: Data Scientist, Business Analyst, Cyber Security Specialist, IoT Specialist, Game Designer, Network Engineer, ERP Specialist, Mobile Developer & Web Developer, UX/UI Architect. The form of the developed career canvases is visually attractive, with a large number of illustrations, photos, colored cards with notes and diagrams. The canvases were developed on the basis of the career development of specialists, showing a certain pattern of their activities and development, which may become an inspiration for future specialists, but also an inspiration to use the materials and develop a personal career canvas.

Format: interactive .pdf file
Applications: Module 2, T6; Module 3, T7, PT

A set of 10 e-learning modules
The prepared e-learning courses can be uploaded on any e-learning platform compatible with SCORM standard.[1] All courses are available in English, while some of them are also available in national languages such as Polish, Portuguese, and Italian. Some courses contain extensive video material prepared specifically for the project (modules on *Design Thinking*). Each video used in the course has additional subtitles, and graphic files and links to external sites have been supplemented with a title and description to ensure partial compliance with the WCAG 2.0 standard.[2] The course scenarios have been consulted with an e-learning methodologist to ensure coherence of the course concept with the assumed teaching objectives and proper organization of the course content, ways of knowledge verification, and selection of course content presentation methods. Each course contains an evaluation module that serves to check the correctness of the adopted methodological concept and course difficulty as perceived by the users. In order to facilitate the use of materials by teachers who do not have access to the e-learning platform, the course content is also available as a .pdf file (with the loss of some interactive elements).

Format: SCORM file or interactive .pdf file

Course title	**Learning outcomes** Student should be able to…	**Applications**
Career canvases – basic issues	• understand why business models are important • describe the nine elements of the *Business Model Canvas* and nine elements of the *Personal Business Model Canvas* • explain why value proposition is a key to a successful BMC and PBM	Module 2, T6
Career canvas – design your canvas	• better understand what your WHY is (what makes you tick) and how it is connected to your future job position(s) • identify what composition of Holland's tendencies correspond with your personality and interests • decide which workstyle is best suited for you at the moment • use business model thinking mindset for your career design, development, and re-design when needed • develop *Personal Business Model Canvas* closely related to your Dream Job Position	Module 3, T7

[1] SCORM is a standard describing the technical aspect of the creation of e-courses and learning materials and methods of their communication with e-learning platforms. Using this standard allows the placement of materials on various e-learning platforms.

[2] WCAG 2.0 (Web Content Accessibility Guidelines) is a set of documents containing recommendations for creating websites accessible for all.

Socially responsible IT specialist	• how social responsibility has evolved • understand business examples of social responsibility • detail a socially responsible investment	Module 1, T4
Effective work planning	• set goals • set priorities • know how to plan activities and tasks • gain self-knowledge about how to be most effective and efficient	Module 1, T1
Self-management in time	• how to manage time according to definite objectives and existing resources • be able to plan your day according to what is high priority, urgent, and important • be able to draw a work schedule • learn how to manage stress	Module 1, T1
Design Thinking – introductory issues	• understand what abduction is and its difference from other kinds of reasoning patterns • understand *Design Thinking* as a process • understand *Design Thinking* as a mindset • understand how your habits make you feel (*Good Time Journal*)	Module 1, T2
Design Thinking – we define the problem	• understand how to figure out what your passion is • understand and reflect on where you are • understand and discern the good and the bad • understand and define your life principles	Module 1, T3
Design Thinking – how to generate a good idea?	• understand how to get unstuck • understand how to use and develop *mind maps* • understand how to combine and mix unusual tasks/activities • understand how to explore a different life plan	Module 1, T3
Design Thinking – we build prototypes	• understand how to develop prototyping • understand how to test and fail by developing prototypes • understand how to learn from your failures	Module 1, T3
Visual thinking as an IT specialist's work tool	• use simple visual images to communicate concepts effectively • think visually to unleash creative thinking capabilities • engage visual thinking techniques in the problem-solving process to allow for innovative ideas	Project

Appendix 4 Customization scenarios – employment bureaus

WORKSHOP PLAN

No.*	Workshop Contents
MODULE [1] – SELF-REFLECTION **MODULE [2] – PROFESSIONAL IDENTITY DEFINITION**	
-	Part made available as an optional online resource for those interested. This section may be omitted in the case of limited training time and according to the needs of unemployed individuals awaiting an action plan to implement.
MODULE [3] – CAREER SCENARIOS EXPLORATION	
T5	***Discovering the opportunities of the local/global labor market*** → Analysis of local/global labor market trends. → Traditional and non-traditional job search techniques. → Creating a *job finding opportunities map*.
T6	***Thinking about professional development and education path in terms of business model.*** → Analysis of the workplace context from the perspective of the company's business model (place of employment).
MODULE [4] – CAREER PROTOTYPING AND TESTING	
T7	***Prototyping a Personal Business Model*** → Analysis of the career canvas catalog, choice of professional development direction based on identified interests, abilities, skills, and passions. → Creating the prototypes of *Personal Business Model Canvas* for a specific professional identity.
T8	***Planning a training path based on a Personal Business Model (optional)*** → Identification of skills and knowledge gaps based on the career canvas catalog and *Personal Business Model*. → Analysis of the employment office resources in terms of the relevance of training to future career. → Identifying key development areas and related training possibilities.

Project

No.*	Development plan
PR	As part of the workshop, each unemployed individual develops the selected canvas of a *Personal Business Model* and prepares, based on online resources (advertising services, movies, papers, industry reports), an analysis of the market potential of a selected job position (group of job positions). The unemployed prepare an outline of the plan of their professional path. An important element of the project is also an analysis of strengths and weaknesses in terms of skills and areas of knowledge, as well as a plan for the development of weak areas by using the resources offered by the employment office (e.g., subsidy, training, expert consultations, psychological support, etc.). Finally, the results are presented and discussed.

* No. (T1, T2 etc.) refers to the topic numbers within course modules, see Appendix 2: *Course syllabus,* Section 5: *Course content.*

Appendix 5 Customization scenarios – employee training on career planning within the company

WORKSHOP PLAN

No.*	Workshop Contents
MODULE [3] – CAREER SCENARIOS EXPLORATION	
T6	***Thinking about professional development and educational path in terms of a business model.*** → Analysis of the workplace context from the perspective of the company's business model (place of employment). → The use of a canvas in the analysis of relationships between a workplace (groups of positions) and key elements forming the business model of enterprises.
MODULE [4] – CAREER PROTOTYPING AND TESTING	
T7	***Prototyping a Personal Business Model*** → Creating the prototypes of a *Personal Business Model Canvas* for a specific professional identity in the company.
T8	***Planning an educational path based on a Personal Business Model*** → Identification of skills and knowledge gaps based on the career canvas catalog and *Personal Business Model*. → Analysis of the training programs in terms of the relevance of subjects to future career. → Identifying key development areas and related courses. → Analysis of available trainings and their assessment in terms of fit with employees' interests and passion.

Project

No.*	Development plan
PR	As part of the workshop, each employee individually develops the selected canvas of a *Personal Business Model*. Employees prepare an outline of the plan of their training path, indicating the course (traditional and online) of greatest importance for professional development. An important element of the project is also an analysis of strengths and weaknesses in terms of skills and areas of knowledge, as well as a plan for the development of weak areas by using the resources offered by the company. The analyzed results are finally presented and discussed with the HR department. The canvas of the *Personal Business Model* is periodically updated.

* No. (T1, T2 etc.) refers to the topic numbers within course modules, see Appendix 2: *Course syllabus,* Appendix 5: *Course content.*

Appendix 6 Customization scenarios – Training employees in corporate and employee social responsibility

WORKSHOP PLAN

No.*	Workshop Contents
MODULE [1] – SELF-REFLECTION	
T2	***Introduction to Design Thinking*** → The essence of *Design Thinking*. Why use DT in planning your educational path and future career? → The process and stages characteristics – the objectives of the stages, products and specificity of the actions taken. → Techniques used at various stages of *Design Thinking.*
T3	***Methods and techniques of Designing Your Life approach*** → Discovering interests, abilities, and passions. → Finding your WHY? → Discovering favorite activities, their type (e.g., analytical, creative) and environment (individual, group). → Discovering professional identity based on identified preferences.
MODULE [2] – PROFESSIONAL IDENTITY DEFINITION	
T4	***Socially responsible employee*** → The essence of the social responsibility of an organization. → The essence of the social responsibility of employees. → Workshop based on LEGO® bricks.

* No. (T1, T2 etc.) refers to the topic numbers within course modules, see Appendix 2: *Course syllabus,* Section 5: *Course content.*

Appendix 7 Customization scenarios – training managers in preparing job offers

WORKSHOP PLAN

No.*	Workshop Contents
MODULE [3] – CAREER SCENARIOS EXPLORATION	
T6	***Thinking about professional development and educational path in terms of a business model.*** → Analysis of the workplace context from the perspective of the company's business model (place of employment). → The use of a canvas in the analysis of relationships between the workplace (groups of positions) and key elements forming the business model of the enterprise.

MODULE [4] – CAREER PROTOTYPING AND TESTING	
T7	***Prototyping a Personal Business Model of employee*** → Analysis of the *Career Canvas Catalog*, identification of interests, abilities, skills, and passions of the future employee. → Creating the prototypes of *Personal Business Model Canvas* for a specific professional identity.

Project

No.	Reference *Personal Business Model Canvas* for a specific professional identity
PR	As part of the workshop, each manger individually develops a canvas of a needed job position. The prepared canvases are discussed as a group. Potential errors are corrected, and the verified canvases are used as a basis for preparing a job offer. The canvases are then presented and discussed with the selected candidates during an interview.

* No. (T1, T2 etc.) refers to the topic numbers within course modules, see Appendix 2: *Course syllabus,* Section 5: *Course content*.

References

Balboni B., Colombo A., Jakieła J., de Jesus Marques G., José A., Marchini S., Musca E., Strozzi Ch., Świętoniowska J., Varadinov M. J., Vignoli M., Wójcik J. 2021. *Business Model – I, Passionate IT Professional. Methodology of Conducting Classes Using the Design Thinking, Visual Thinking and Storytelling Methods,* Department of Economics, Marco Biagi, University of Modena and Reggio Emilia.

Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning, "Official Journal of the European Union" 2008/C 111/01. http://www.nkilatvija.lv/content/files/EQF_Recommendation_2008_en.pdf; accessed: 13.07.2022.

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CHAPTER 6

Tools and techniques

Abstract
This chapter is a catalog presenting the selected tools (all presented in Table 4.1 in Chapter 4), involving an in-depth look at all the tools that a PCD course introduces to students. The tools are ordered alphabetically and presented according to stage (Self-Reflection, Professional Identity Definition, Career Scenarios Exploration, Career Prototyping and Testing). Each tool description is organized around four points: 1) short description; 2) benefits for students (what the student gains with a successful application of the tool); 3) usage scenario (how to run the activity from a teacher's perspective and how to execute it from a student's perspective); and 4) practical instructions (suggestions for a better implementation of the tool gleaned from the authors' experience with various tests).

Keywords: BE(A)ST approach, career design tools, Personalized Career Development course, Self-Reflection stage, Professional Identity Definition stage, Career Scenarios Exploration stage, Career Prototyping and Testing stage

6.1 SELF-REFLECTION STAGE

6.1.1 *AEIOU*

Short description
The *AEIOU* approach assists students in making extensive and accurate observations of when and where they are engaged and energized, as well as assisting them in reflecting on those observations. The procedure is easy and yet yields significant results.

This tool can also be used after the *Good Time Journal* to gain more focus, to dig deeper into the students' findings, and be more specific about their logs.

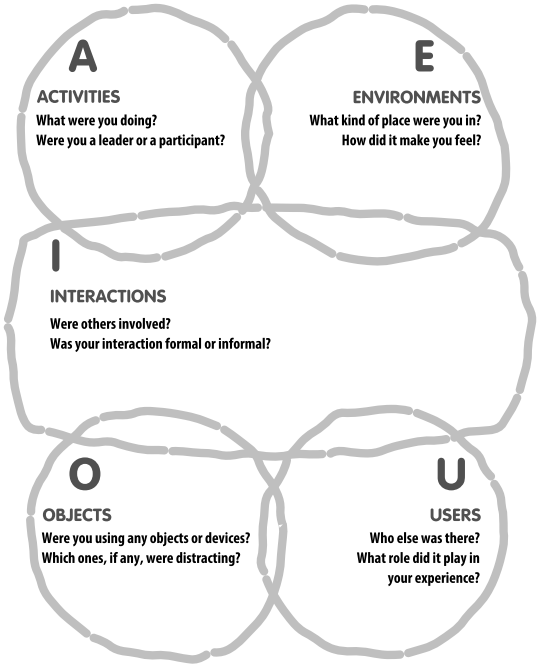


Figure 6.1 The *AEIOU* tool template with focus on the positive points

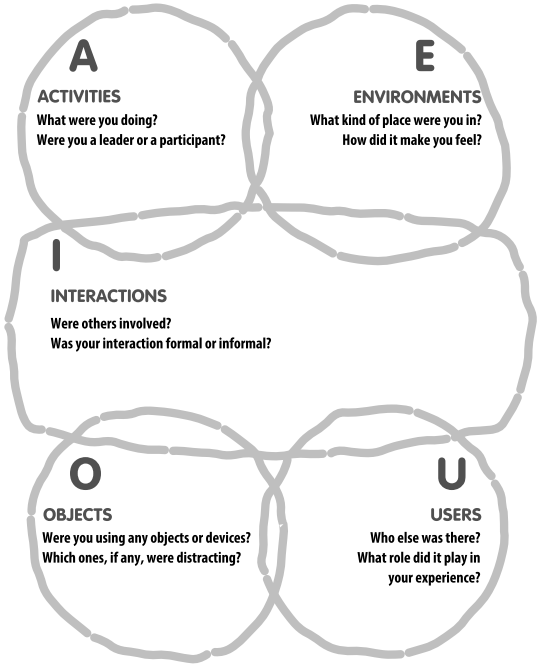


Figure 6.2 The *AEIOU* tool template with focus on the negative points

The *AEIOU* (*Activities, Environment, Interactions, Objects, Users*) tool provides five sets of questions to use to reflect on one's activities.

Benefits for students

The *AEIOU* tool helps students categorize activities into several interconnected elements to be able first to focus on each one individually, and subsequently, to consider all elements together from a new perspective. Students can also use the tool to deepen their analysis of the *Good Time Journal* and better understand what gave them energy/engagement or, conversely, what took them away.

Tool's usage scenario for students

Scenario: How to develop *AEIOU*?

Think of at least four activities in which you were highly engaged or which energized you, then deepen your reflections by exploring the details. If you have completed the *Good Time Journal*, consider the activities you have already jotted down. Once you have identified positive experiences, start analyzing them with the tool and write down your thoughts and notes.

These are the five aspects to analyze for each activity:

- A for *ACTIVITY*: *What were you actually doing? Was this a structured or unstructured activity? Did you have a specific role to play or were you just a participant?*
- E for *ENVIRONMENT*: *Our environment has a profound effect on our emotional state. Notice where you were when you were involved in the activity. What kind of a place was it, and how did it make you feel?*
- I for *INTERACTIONS*: *What were you interacting with – people or machines? Was it a new kind of interaction or one you are familiar with? Formal or informal?*
- O for *OBJECTS*: *Were you using any object or devices? Which ones, if any, were distracting? What were the objects that gave rise to or supported your feelings?*
- U for *USERS*: *Who else was there and what role did they play in this experience?*

Once you have finished, do the same with your most negative experiences and analyze them in detail. Use *AEIOU* to effectively zoom in and uncover exactly what is and isn't working for you!

Practical instructions

- It may be that students feel constrained by such specific questions. Try to help them understand that these are not obligations but prompts to jumpstart their own analytical process.
- In addition, it may happen that for some activities some items are more relevant and require more thought while others are unimportant or negligible. Suggest that students use this tool to identify the most important aspects of the activity they are exploring.

– At the end of this activity, you can use the *Designing Life Principles* tool to identify and set the most important principles that guide your life.

6.1.2 *Career Mind Mapping* (adapted for the Self-Reflection stage)

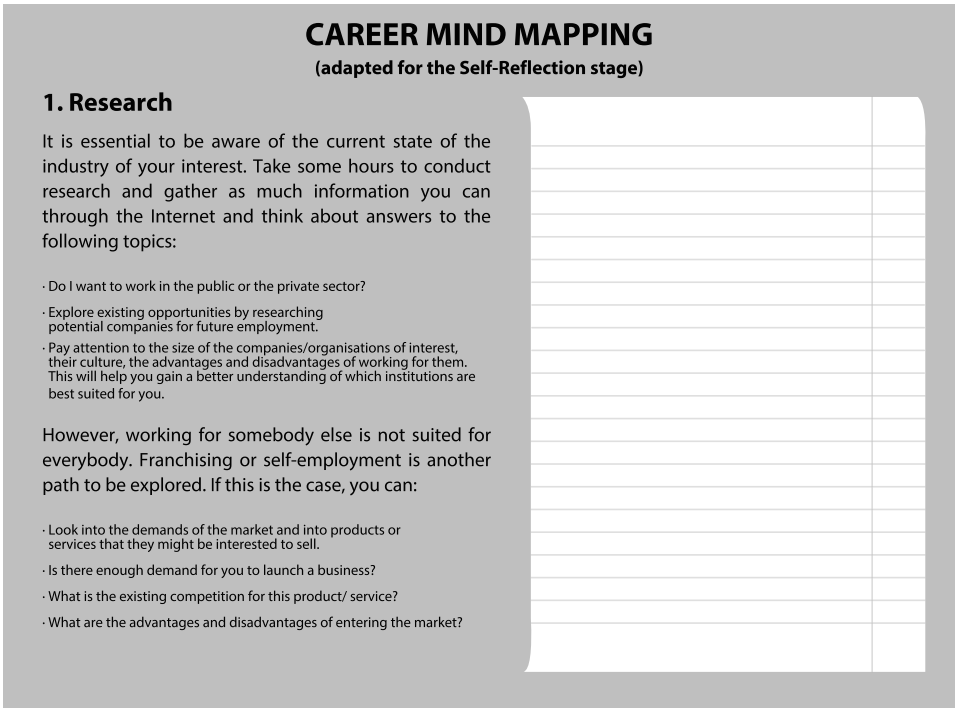


Figure 6.3 *Career Mind Mapping* tool template (adapted for the Self-Reflection stage)

Short description

Career planning is one of the most essential parts of anyone's life. Therefore, developing a mind map is a useful tool to organize career planning in the most effective way. This tool will help students to explore and manage their career path through three different stages:

1. Research

In this part students will dedicate some time to researching the currently existing job opportunities. This research can be done online (by visiting career sites) or even by reaching out to professionals, mentors, teachers, etc. The second stage of this process would be to reflect and answer the questions provided on the sheet.

2. Reviewing and planning (go to page 166)
3. Personal development (go to page 179)

Benefits for students
Whether they want to explore a career path or improve their chances of professional success, this tool will assist students in understanding their needs and narrowing down the range of job options that are most suited to their personality and work attitude. Understanding the present situation of the labor market is an important aspect of establishing a professional path. Exploring the options and spending the time to research career opportunities is crucial for recognizing your value in the market.

Tool's usage scenarios for students
Scenario: How to develop *Career Mind Mapping*?
Self-Reflection stage – *Research*
It is essential for the student to be aware of the current state of the industry which she is interested in. To that end, she could conduct some research on the Internet to explore the existing employment opportunities, thinking about whether she is interested in working in the public or the private sector. She may come up with a list of potential companies for future employment, paying attention to the size of the companies/organizations of interest, their culture, the advantages and disadvantages of working for these companies. This will help her gain a better understanding of which institutions are the best fit for her. Since working for somebody else is not suited for everybody, however, franchising or self-employment is another path to be explored. Conducting research in this topic will give the student the opportunity to look into the demands of the market and into products or services that she might be interested in selling. Is there enough demand for her to launch a business? What is the existing competition for this product/service? What are the advantages and disadvantages when entering the market? All these are aspects she will need to take into account.

Practical instructions
- Students might be put off by such a broad topic. Encourage them to spend the right amount of time on this activity and to focus on the questions provided in order to carry out interesting research.
- The research phase is crucial, but students may feel lost. Try to support and help them in this phase by, for example, offering more specific instructions if you feel it is necessary.
- Explain to the students that it is not necessary to write an excessively long text, but it is sufficient to respond in the form of short answers or bullet points.

6.1.3 *Change of Perspective*

Short description
The purpose of this technique is to find out how to refute cognitive distortions or change ways of thinking. The main assumption here is to demonstrate

that our thoughts play a crucial role in defining ourselves. Therefore, if we change our thoughts about an event, we can change our feelings, our emotions, and consequently, our behavior. Rigid thinking leads individuals to repeat behaviors that have already proved ineffective. The subject's inability to reject automated processes in favor of controlled processing that allows him to change his perspective on a situation/problem is an obstacle to adaptive behavior. Faced with a situation/problem, the individual unable to change his perspective is unable to perceive the need to change behaviors in complex and unstructured domains that require cognitive insight. In this context, the *Change of Perspective* tool (Moreira 2019) is extremely effective in increasing cognitive flexibility. Cognitive flexibility begins with the ability to change or alter strategies of acting or thinking according to the need demanded by the situation/problem.

Benefits for students

- Gaining the ability to put yourself in other's shoes, redefining social responsibility approaches.
- Gaining the ability to think from different perspectives in order to understand the different sides of a social responsibility problem or action.
- Gaining the ability to find multiple solutions to the same problem and choose the most appropriate one in the context of social responsibility.

Tool's usage scenario for students

Scenario: How to develop *Change of Perspective*?

Each person has a different filter formed by their genetic characteristics, past experiences, beliefs, and values. This filter will condition what we feel, think, and therefore how we behave. The following exercise aims to enable the individual to think about day-to-day situations from a different perspective and, accordingly, to increase her range of answers and, above all, allow her to give more effective answers.

1. Recall a situation that involved someone else. Remember what you said and what you felt.
2. Take a deep breath to oxygenate the brain and calm your emotional state.
3. Now, imagine it was someone else who was involved in that situation. Imagine yourself leaving your body and entering that person's body. Answer the questions:
   - How are you feeling?
   - What may have happened to make you feel this way?

   Bear in mind that just as the things happening in your life may affect your emotions negatively and make you treat others unfairly, the same thing may happen to other people. It's advisable to be open to different ways of looking at the same reality and maintain objectivity to the extent that it's possible.

4. Now, imagine that it is a third person who is wtinessing that situation from the outside, without any emotional involvement. Looking at the discussion of the two people involved in the situation (you and the other person), what lesson do you learn?
5. Now think about that situation again. Can you now see it from other perspectives?

Practical instructions

- Try to help students to understand the importance of this tool as an opportunity for reflection.
- It is important for students to understand that it is possible to look at the same situation/problem from different perspectives and that the way we understand a situation/problem is conditioned by our perception. Encourage students to use this tool to challenge their own way of thinking.
- This tool allows one to develop skills such as self-awareness or empathy, which are fundamental characteristics for being able to design one's future life. Emphasize this aspect with students to encourage them to experiment with this tool in depth.

6.1.4 *Cognitive Reconstruction*

Event	Feeling	Initial thoughts	Support Thinking
Arguing thoughts			
		Balancing thoughts	

Figure 6.4 The *Cognitive Reconstruction* tool template

Short description

The central idea of *Cognitive Reconstruction* is to realize that we are very much what we think and that, if we change our thoughts about an event/situation, we can change our feelings and, as a consequence, our behavior. This technique is widely used to increase self-awareness, especially in situations of stress, social anxiety,

procrastination, and low self-esteem. The purpose of this technique is to find out how to refute cognitive distortions or change ways of thinking. The main goal here is to demonstrate that our thoughts play a crucial role in defining ourselves. Therefore, if we change our thoughts about an event, we can change our feelings, our emotions, and consequently our behavior. With this technique, students will be able to replace irrational and distorted thoughts with healthy and beneficial thoughts. With training and effort, people become more aware of what is happening in their minds and are able to change the way they are thinking in a more positive direction.

Benefits for students

- Enhancing the students' self-awareness to better understand social responsibility challenges.
- Changing students' perspectives to make them more flexible in a social responsibility context.
- Change limiting behaviors, allowing students to be more active in a social responsibility context.

Tool's usage scenario for students

Scenario: How to develop *Cognitive Reconstruction*?

In a relaxed environment, people are invited to a training that increases their self-awareness and helps them to identify feelings/thoughts and disruptive behaviors. The exercise follows eight steps (Moreira 2019). Each step must be presented individually and there is no time limit for each one. The technique can be applied individually or in small groups.

1. Register an event that happened on a particular day and for which a non-adaptive response was given.
2. Register the feelings one had.
3. Register the initial and automatic thoughts one had.
4. Register the reasons that led one to have that thought.
5. Register 'arguing thoughts' – i.e., thoughts that one can use to oppose the initial thoughts and therefore break them.
6. Register 'balancing thoughts' – i.e., conclusions one reached with this new way of thinking.
7. Register 'current feelings' – i.e., feelings one now has when analyzing the situation from another perspective.
8. Register the different perspectives with which one can assess that situation and, accordingly, the different ways to act.

Practical instructions

– This technique is widely used to increase self-awareness, especially in situations of stress, social anxiety, procrastination, and low self-esteem. It is

important to highlight this to the students to make them fully understand its usefulness and encourage them to use it thoroughly and consciously.
– Encourage students to focus on the questions presented above, which will help them realize that their thinking may be limiting.

6.1.5 *External Observer*

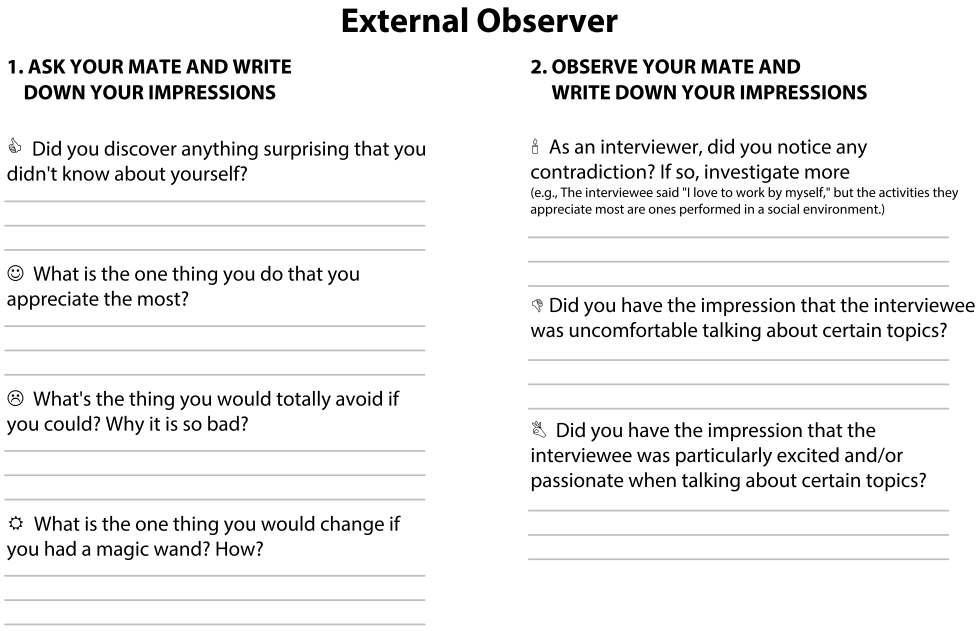


Figure 6.5 The *External Observer* tool template

Short description

An external observer can spot contradictions and patterns or ask questions that trigger new ideas, which is the rationale behind sharing our wayfinding in pairs. This tool can be used after every individual tool (e.g., *Odyssey Plan*, *Good Time Journal*, etc.). It consists of a semi-structured interview conducted in pairs. Talking about personal lessons learned is the best way to let them work upon us.

Benefits for students

The *External Observer* tool is a very specific and enjoyable way to question yourself and change your perspective by considering another person's perspective. It can also be a good opportunity to get to know the other person. Knowing that you are not alone on this journey and trusting your fellow travelers can make this journey even more fruitful. Moreover, an outside observer is a powerful validator of one's findings!

Tool's usage scenarios for students

Scenario: How to develop *External Observer*?

This tool can be used following several individual reflection activities and serve as a moment of sharing and discussion in pairs. The instrument consists of two phases:

- During the first phase, each individual in the pair interviews the other, asking, for example, what his or her impressions and perceptions were during the reflection on the previous instrument, noting the partner's responses.
- Once the interview is completed, the second phase requires the interviewer to reflect on what they observed about their partner during the interview: whether there were any contradictions and what the partner's emotions were, e.g., whether they were uncomfortable, excited, or uninvolved.

The following is an example of *External Observer* as carried out following the *Good Time Journal*.

Compare with your partner what arose for you in your *Good Time Journal*.

Interview your partner using the following questions:

ASK YOUR PARTNER AND WRITE DOWN YOUR IMPRESSIONS:

- *Did you discover anything surprising that you didn't know about yourself?*
- *What is the one thing you do that you appreciate the most?*
- *What's the thing you would totally avoid if you could? Why is it so bad?*
- *What is the one thing you would change if you had a magic wand? How?*

As an interviewer, is there something that you noticed about your conversation partner? Use the following questions to investigate:

- *As an interviewer, did you notice any contradiction? If so, investigate more (e.g., "I love to work by myself," yet the most appreciated activities by your interviewee are ones in a social environment).*
- *Did you perceive that your interviewee was uncomfortable talking about some topics?*
- *Did you perceive that your interviewee spoke passionately about other topics?*

Practical instructions

- The *External Observer* is a popular tool for students who enjoy sharing their reflections with their peers, so it can be used often!
- In addition, many of the proposed tools rely on individual reflection, which requires a great deal of concentration. It may thus be more productive to alternate them with moments of exchange and sharing with peers.
- The moments in which the *External Observer* is used are sometimes considered by students as informal breaks and opportunities to converse with their peers. It is natural to have a bigger conversation, but it is also important to create an opportunity to share tool-related reflections. You may follow up with a plenary sharing session, in which you ask students to discuss some key points that came up throughout the exercise.

6.1.6 *Good Time Journal*

Figure 6.6 The *Good Time Journal* tool template

Short description

The *Good Time Journal* is a tool to keep track of routine activities and how the student feels about them. This tool helps students become aware of which activities represent 'Energy' and 'Engagement'. The idea is to record all the information about the student's activities and her perceptions about energy and engagement: the more deeply she dives into her habits, the more coherent her career design will be.

Benefits for students

Before making a change in ourselves, we need to figure out which activities we feel truly involved in. It is a good exercise in thinking about what we like to do in our daily lives and putting it in writing for clarity.

Tool's usage scenario for students

Scenario: How to develop *Good Time Journal*?

1. *Identify your typical day's activities:* you can write down all the activities that you have done in the last few days: not only the work-related activities but also the activities that you do in your free time.

   Even if you spend most of your time working, not all workdays are alike!

   - Do your workdays always include the same activities? Can you identify different typologies of workdays where you do different tasks and meet different people?
   - You can also map a non-workday if it includes relevant activities through which you express your passions and interests and which are not already covered during your workdays. You can write, for example, 'fixing bicycles,' or 'cooking for a dinner with friends.'

2. *Note down how engaged and energized you were during those activities:* for every activity, you must fill in the two dashboards on the right:
   - In the ENGAGED dashboard, you answer the questions: "How much was I engaged in this activity? How interesting was it to me? How involved in it did I feel?"
   - In the ENERGIZED dashboard, you answer the questions: "Did this activity give me energy or take it away? Did I feel exhausted/tired/empowered at the end of this activity?"

It is important to note the difference between Energy and Engagement: some activities might engage you but also exhaust you.

Engaged: when you are engaged, excited, focused, and having a good time, basically really satisfying moments.

Energized: some activities sustain our energy, while others suck the life out of us.

Take a week or a few days to observe your routine and write down more activities in the *Good Times Journal*, particularly how they make you feel in terms of energy and engagement.

Practical instructions

- It may happen that students are struggling to have a broad view of their activities as they are in a time of transition or a period otherwise unrepresentative of their lives. You can then suggest to them that they may also consider moments in the past that they recognize as very positive or 'peak moments.' It is important to understand what makes these moments so positive.
- Sometimes students approach this exercise as a 'homework assignment' in whichthey just have to list activities without an end goal. If you have this impression, help them think about it with these prompts:

- Note which activities were more engaging and energized and which less or not at all.
- Did anything come up that surprised you in your reflection?
- Did you notice anything interesting about your 'peak moments'?
- Zoom in and try to be more specific about what involves and energizes you.

– At the end of this tool, it is possible to use the *AEIOU* tool to further explore both the more and less energizing and engaging activities.

6.1.7 *Life Dashboard*

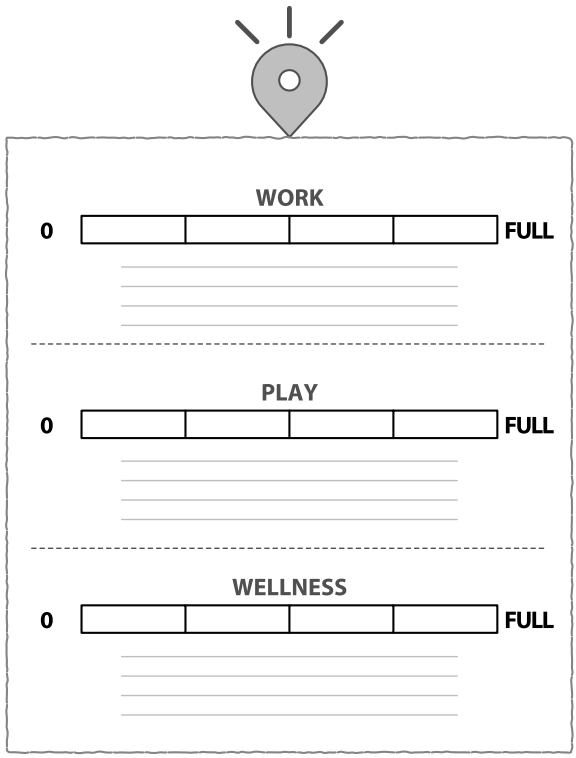


Figure 6.7 The *Life Dashboard* tool template

Short description

This tool helps each student to become aware of his/her current situation, so it is crucial to start from where s/he is at this moment. To make this evaluation easier, life is considered in three different aspects: *work*, *play*, and *wellness*. Work refers to what you do, play to what brings you joy, and wellness to what makes you feel good. Like a car's dashboard, this dashboard shows you how your various 'systems' are performing.

Benefits for students

Before making a change in oneself, one needs to become aware of one's own current situation, particularly in the areas that are intended to change. It is therefore important to start with an initial framework of one's context to understand the current situation, realizing that one's life is made up of several components and that private and work life are closely connected and influence each other.

Tool's usage scenario for students

Scenario: How to develop *Life Dashboard*?

Evaluate your current situation and fill in the fields in the dashboards from zero to full for each category (work, play, and wellness). Here is a brief explanation to better understand the three areas:

Work: Work is your main activity, what you do. You may or may not get paid for it.

Play: Play is all about joy. Play includes all those activities that bring you joy when you do them; these things are done 'for the sake of it' and are fun without any obligation.

Wellness: Wellness refers to feeling well in mind, body, and spirit – emotional, physical, and mental wellness.

Describe with a few sentences how it's going in each of the three areas – not with many details, as this is meant to be just an overall evaluation.

Knowing the current state of your dashboards provides you with a framework and some personal data, all in one place. Only you know what's good enough or not good enough. When you've finished this brief evaluation, ask yourself:

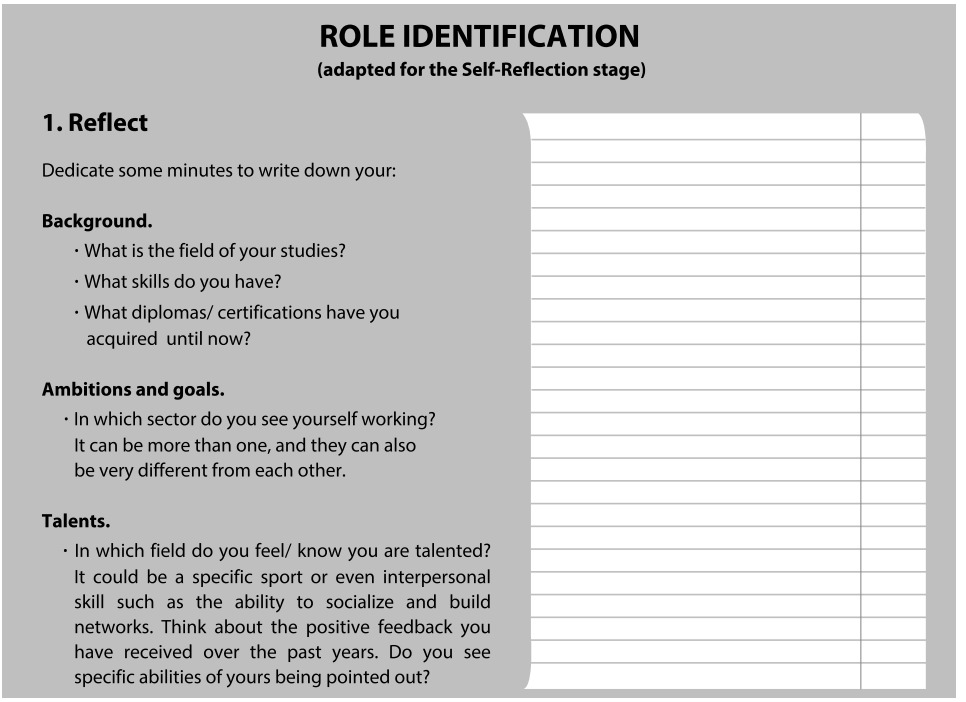
- Are you happy right now with where your gauges stand in each of these three areas?
- Are there areas that need action?
- Have you looked at them with honesty?

Practical instructions

Students often tend to describe activities related to the three areas rather than their level of satisfaction: try to help them focus on discerning how satisfied they are by using the activities as a means and not an end.

Sometimes it is difficult for students to zoom out for a general picture; often they will focus on one aspect, either positive or negative, and this can affect a whole domain. For example, with the statement: "I was in quarantine until two days ago, so my wellness is very low," the student extrapolated her assessment of a specific current situation on the much broader sphere of her wellness.

6.1.8 *Role Identification* (adapted for the Self-Reflection stage)



ROLE IDENTIFICATION

(adapted for the Self-Reflection stage)

1. Reflect

Dedicate some minutes to write down your:

Background.

- What is the field of your studies?
- What skills do you have?
- What diplomas/ certifications have you acquired until now?

Ambitions and goals.

- In which sector do you see yourself working? It can be more than one, and they can also be very different from each other.

Talents.

- In which field do you feel/ know you are talented? It could be a specific sport or even interpersonal skill such as the ability to socialize and build networks. Think about the positive feedback you have received over the past years. Do you see specific abilities of yours being pointed out?

Figure 6.8 *Role Identification* tool template (adapted for the Self-Reflection stage)

Short description

This tool will give the student the chance to reflect on her personality, vision, background, and talents. By combining all of these parts of herself on paper, the student should eventually be able to identify her preferred working environment and thus move forward in her career exploration.

Benefits for students

Everyone is suited for some roles and this tool will allow the individual to find the ones that are suited best to her. This tool will help her create:

- A connection between the desirability of her talents and employment opportunities.
- An increased confidence in herself and her talents.

Tool's usage scenario for students

Scenario: How to develop *Role Identification*?

This is an hour-long task which will allow you to carry out self-assessment. This will help you understand where you fit the best based on your current skills/ personal talent.

Begin by filling in the *Role Identification* template. At least 40 minutes should be allocated for completing the first task, and 20 minutes for the second part. We advise thinking well before answering the key questions presented in the document and writing down answers in the form of short phrases or bullet points.

Self-Reflection stage - *Reflect*
Dedicate some minutes to write down your:

- *Background*
  What is the field of your studies, the skills you have and diplomas/certifications you have acquired until now? Do not hesitate to include possible certifications in languages, further training, or courses you have participated in.
- *Ambitions and goals*
  In which sector do you see yourself working? It can be more than one, and they can also be very different from each other.
- *Talents*
  In which field do you feel/know you are talented? It could be a specific sport or even interpersonal skill such as the ability to socialize and build networks. Think about the positive feedback you have received over the past years. Do you see specific abilities of yours being pointed out?

Practical instructions

- Suggest to students when writing down their ambitions and goals that they keep an open mind and try not to limit themselves if their background and goals are not in the same field.
- Tell them to focus only on the vision they have for themselves and to put it down on paper, in the form of bullet points or short answers.
- The students will probably have received positive feedback from others regarding some of their skills or talents. Help the students whose talents are not apparent to think of the areas in which they believe they can achieve the most success with little to no effort and a high level of satisfaction.

6.1.9 *Set Goals* (adapted for the Self-Reflection stage)

Short description
As presented by Moreira (2019), setting goals contributes to motivation, achievement, and purpose in life. If we don't know where we're going, any path will do. By setting goals, we gain more clarity about our lives and channel time, energy, and effort to what really interests us. To do this, we will use the *Wheel of Life* tool, which represents our life divided into several slices, allowing us an overview as well as a chance to look at each one individually.

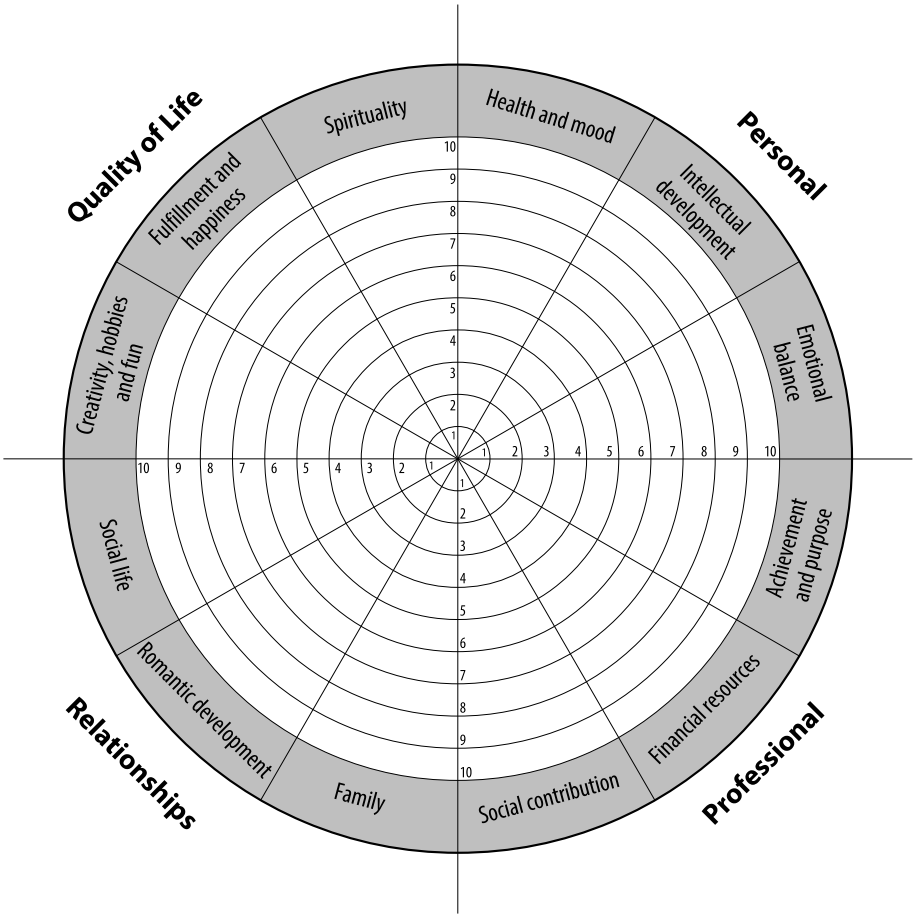


Figure 6.9 The *Set Goals* tool template (adapted for the Self-Reflection stage)

In this exercise, the idea is to write down in each slice a number from one to ten (with ten being the maximum value) according to one's current level of satisfaction in that area of life. This ultimately yields a graph representing the person's life, showing the level of satisfaction in each area.

Benefits for students

- Gain awareness of how their life is going so that they can develop social responsibility actions.
- Help to see where they are at the moment and how they can have an impact in the area of social responsibility.
- Consider where they want to go, achieving more concrete goals in connection with social responsibility actions.

Tool's usage scenario for students
Scenario: How to develop *Set Goals*?
Self-Reflection stage
Determine how satisfied you are – from one to ten – in each of these areas of your life, and mark down that number in the corresponding pie slice. If you were to choose one area to improve, which one do you think would most boost the other areas, creating the greatest possible positive impact on your life? Choose one of the slices.

Practical instructions
- Each slice should be seen as a whole, try to get students to understand that it is possible to have ambiguous feelings about each one.
- It is also important for students to understand that they are measuring the current state and not the definition of each area.
- The tool is a starting point for improvement and should be approached with complete emotional honesty.

6.1.10 *Talent Identification* (adapted for Self-Reflection stage)

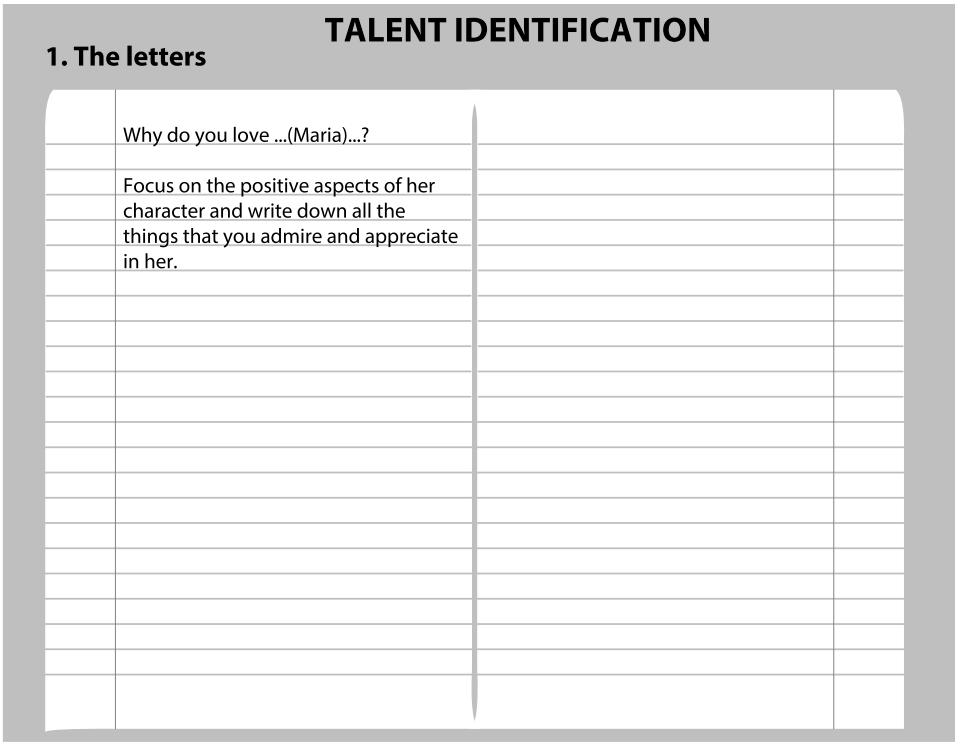


Figure 6.10 *Talent Identification* tool template (adapted for the Self-Reflection stage)

Short description
This tool allows you to gain a better understanding of yourself and your abilities by identifying your talents. Through this method students will discover how to be most useful in society by exploring the skills, values, and qualities that make an individual essential to society.

In this stage you will collect at least seven letters from your loved ones. Select seven people from your surroundings with whom you have a close relationship and ask them to write at least 250 words expressing their love for you and emphasizing your positive qualities. At least seven letters from your loved ones must be gathered throughout this stage.

Benefits for students
You will connect with your loved ones and use their collective insight to learn more about yourself.

Tool's usage scenario for students
Scenario: How to develop *Talent Identification*?
The *Talent Identification* tool is designed to showcase the distinctive talents of a person and the specific and unique behavior that unveils them. The uniqueness of each person is emphasized through the letters of their loved ones. The aim is to remain empirical and non-idealistic when the letters are composed. You will discover the right way to combine all the information in the letters and look for units of meaning. This is a methodology that will re-energize you by offering you a solid foundation for self-confidence and potential. As it involves other people, this methodology is based on putting the collective intelligence of all at your service. The *Talent Identification* tool will allow you to reveal your essential social contribution through and with others. The process is designed in two successive stages, the following being the first one[1]:

Self-Reflection stage – *The letters*
Based on the received letters, this tool will allow you to carry out an assessment and help you understand where you fit the best based on your current skills/personal talent. In this stage, you will ask people from your close environment and who know you well to compose a letter about you, highlighting your positive attributes. The main question they should answer is: *What do they love about you? What is it that they appreciate and admire in you?* We recommend choosing people of different ages and perhaps backgrounds; each of them should play a different role in your life, e.g., one person could be your good friend, the other your mentor/professor, your colleague, sibling, and so on.

[1] The second one can be found later in the Professional Identity Definition stage.

Practical instructions

- Emphasize that the people the students choose to write the letters must have a genuine connection with them. The better the letter authors know them, the more likely they are to 'see' their positive qualities and skills.
- Emphasize the importance of requesting letters from people who play a variety of roles in their lives. E.g., tell them not to focus only on family and friends, but to try to include professors, colleagues, and mentors as well.
- Specify to students to remind the people who write about them to write *only* about their positive attributes. This exercise is not about constructive criticism, but rather about building up confidence and helping the individual in the journey of self-exploration.

6.1.11 *Well-Being Compass*

Workview

Why do you work?
How does work relate to the individual, the others, and society?
What does money have to do with it?
What defines good or worthwhile work?
What do experience, growth, and fulfillment have to do with it?

Notes

My workview

Worldview

What is the meaning or purpose of life?
What is the relationship between the individual and the others?
Is there a higher power? And if so, what impact does it have on your life?
What is the role of joy, sorrow, love, peace, justice, injustice in life?

Notes

My worldview

Figure 6.11 The *Well-Being Compass* tool template

Short description

The *Well-Being Compass* is a very simple tool that, as its name suggests, serves to point the user in the right direction for the journey ahead. To develop this compass, you need to clarify two visions – your vision for work and your vision for life.

Benefits for students

The *Well-Being Compass* is a tool to take into your own hands when things are not going very well. It reminds you of the fundamentals of your values and guides your actions. It will help you see the connections between who you are, what you believe, and what you are doing.

TOOL's USAGE SCENARIO for students

Scenario: How to develop *Well-Being Compass*?

This tool is articulated in three steps:

1. Write down your *vision of work* (about 250 words). It should address the critical issues related to what work is and what it means to you.
   Use these questions as a cue: *Why do you do it? What value does it hold for you? What do you want to get from working? What makes work 'good'? How does work relate to yourself, to others, to society?*
2. Write down your *vision of life* (about 250 words). The key is to write down whatever values and perspectives define life to you.
   Use these questions as a cue: *Why are we here? What are your values? What gives your life meaning? What is the purpose of life? How are family, friends, and country situated in your vision of life? What is good and what is bad? Is there a higher power? If yes, how do you deal with it? What role is played by joy, pain, justice, love, peace, conflict?*
3. Finally, consider these two texts. In which points are the two visions complementary? Where do they conflict? Where do they overlap? Does one outweigh or obscure the other one?

Practical instructions

- Students may be intimidated by such deep and complex topics. Try to encourage them to think through at least some of the proposed questions and to consider them as stimuli and not demands.
- If necessary, open a dialogue on this topic to better explain that it is important to clarify to oneself what one's values and beliefs are for more conscious career development.
- The point is not to know what work the student wants to do, but *why* the student wants to work. What the exercise asks is their philosophy of work: what it is for, what it means. Have a conversation around this to help students clarify the point, if necessary.

6.2 Professional Identity Definition stage

6.2.1 *Career Mind Mapping* (adapted for the Professional Identity Definition stage)

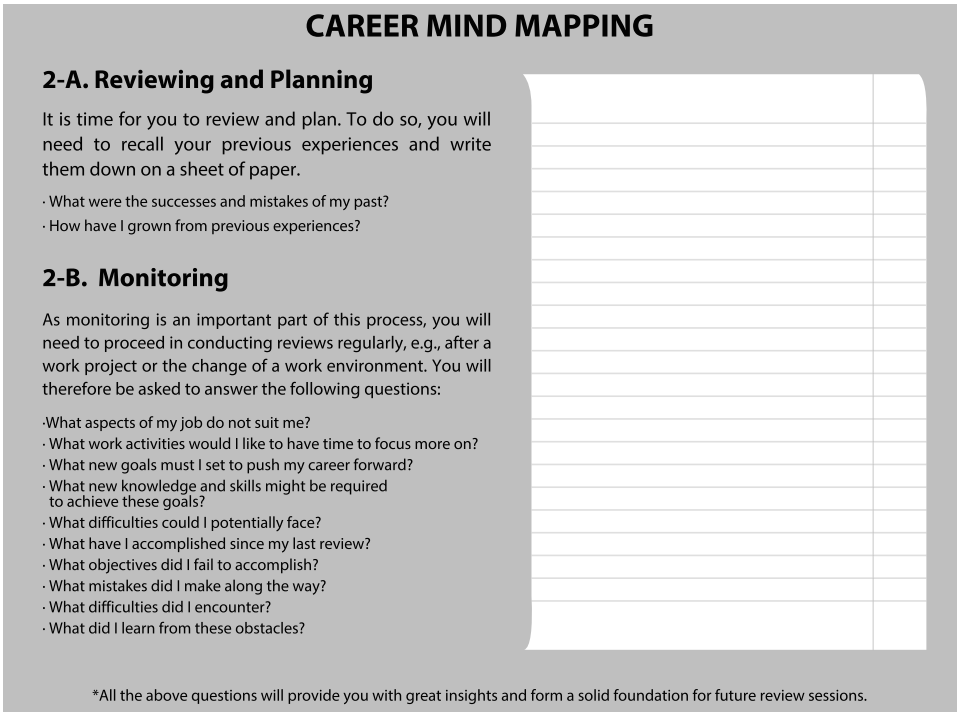


Figure 6.12 *Career Mind Mapping* tool template (adapted for the Professional Identity Definition stage)

Short description
Career planning is one of the most essential parts of everyone's lives. Therefore, developing a mind map is a useful tool to organize career planning in the most effective way. This tool will help you to explore and manage your career path through three different stages:

1. Research (go to page 148)

2. Reviewing and planning
In this section students are asked to reflect on the research they conducted and move on with actively planning and reviewing. Once they have answered these questions, they can move on to the monitoring part of this process where they will review and plan. Conducting reviews regularly, e.g., after a work project or the change of a work environment, will be beneficial to them.

3. Personal development (go to page 179)

Benefits for students

Having a well-defined plan of action aimed at professional fulfillment is very useful for every individual, as it creates a filter when it comes to making professional choices. Whether you want to explore a career path or improve your chances of climbing the ladder of professional success, this tool will help you understand your needs as well as narrow down the spectrum of career opportunities that would be most suitable for your personality/work mentality.

Tool's usage scenarios for students

Scenario: How to develop *Career Mind Mapping*?

Professional Identity Definition stage

a) *Reviewing and planning*

It is time for you to review and plan. To do so, you will need to recall your previous experiences and write them down on a sheet of paper.

- What were the successes and mistakes of my past?
- How have I grown from previous experiences?

b) *Monitoring*

Monitoring is also an important part of this process. Therefore, you need to review and plan, conducting reviews regularly, e.g., after a work project or the change of a work environment. To do so, you will need to recall your previous experiences and write them down on a sheet of paper. The following questions can guide the process.

- What aspects of my job do not suit me?
- What work activities would I like to have time to focus more on?
- What new goals must I set to push my career forward?
- What new knowledge and skills could be required to achieve these goals?
- What difficulties could I potentially face?
- What have I accomplished since my last review?
- What objectives did I fail to accomplish?
- What mistakes did I make along the way?
- What difficulties did I encounter?
- What did I learn from these obstacles?

All the above questions will provide you with great insights and form a solid foundation for future review sessions.

Practical instructions

- Sometimes when students are asked to recall past experiences, they tend to focus on fairly recent ones on. Help them to consider a broader time frame and reflect on more distant experiences as well.
- Explain to the students that it is not necessary to write an extensive text. It is sufficient to respond in the form of short answers or bullet points.

6.2.2 *Design Life Principles*

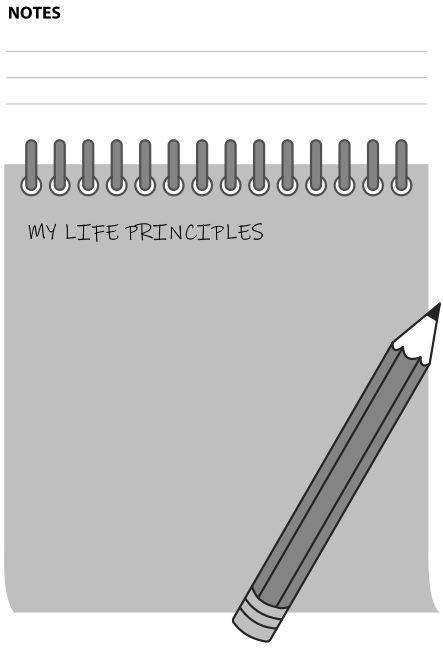


Figure 6.13 The *Design Life Principles* tool template

Short description
Life Principles are something that you have discovered about your preferences or values that you want to keep at hand while building your future career. Some examples might be: *working in an environment that respects my moral values, alternating time spent on the computer with social relationships, working in my city.* The development of Life Principles can start with the *AEIOU* tool, and in this case its main purpose is to crystallize the research phase into memorable guidelines in order to later develop a career plan consistent with its creator.

Benefits for students
It is possible to imagine Life Principles as boundaries that define one's area of action. Being able to get clarity about what this area is and what areas one does not want to move into is very positive for future choices.

Tool's usage scenario for students
Scenario: How to develop *Design Life Principles*?
Take a moment to reflect and think about your values, about what is important to you and what drives your life. If you need more prompting, you can use the *Good Time Journal* and *AEIOU* tools to start the reflection.

The tool has quite a free structure: once you figure out a Life Principle, you write it down in order to make a list. Find patterns and sum up your findings in a few principles that you find important to consider while planning your future life (e.g., *working in an environment that respects my moral values, alternating time spent on the computer with social relationships, working in my city*). Life Principles do not necessarily have to be something completely new and unexpected; usually some are already familiar but have just never been properly formulated.

Practical instructions

- There is no right number of Life Principles; everyone has their own. Suggest that students make sure they have considered all the aspects that are important for them to take into account when planning future work life!
- Developing principles that are true and consistent with one's way of being and having them clear can help a lot for future choices; help students to be clear on this idea.
- Sometimes students tend to define as Life Principles what are actually their specific preferences. For example, one student might say, "I really like being in the lab and doing research but sometimes it's a bit alienating and I need to disconnect, so I also like to do coordination activities where there's more interaction with other people." It is therefore important to explain thoroughly to students that their preferences can be turned into general principles that are then applicable in broader contexts. That student's preference can be reworded to: "It is important for me to alternate moments of individual research with more organizational activities that include exchange with others."

6.2.3 *Identify Your Values*

Short description

As presented by Moreira (2019), values are principles that govern our lives, make us who we are and lead us to react as we react, define us as individuals, and influence our actions and decisions. We propose that the values hierarchy can assist in clarifying the order of one's values and the reason for certain attitudes and behaviors. It should also facilitate decision making, as it helps identify one's priorities.

Benefits for students

- Promoting the encounter with yourself and identifying values that are connected with social responsibility.
- Aligning who you are with what you want to do in terms of social responsibility.
- Increasing self-awareness and social responsibility awareness.

Tool's usage scenario for students

Scenario: How to develop *Identify Your Values*?

1. Give the student the table with all the values and ask her to identify the eight values that she considers most important. At this point, hierarchical order is not as important as the selection of values.

Honesty	Joy	Friendship	Perfectionism	Integrity
Audacity	Sincerity	Education	Professionalism	Freedom
Energy	Popularity	Sensitivity	Concentration	Congruence
Religion	Respect	Challenges	Understanding	Courage
Justice	Success	Satisfaction	Consistency	Flexibility
Empathy	Hygiene	Intensity	Cooperation	Dynamism
Proactivity	Purity	Security	Commitment	Calm
Change	Love	Happiness	Financial Stability	Creativity
Discipline	Fame	Cordiality	Physical Form	Vision
Experience	Learning	Satisfaction	Independence	Beauty
Strength	Sympathy	Excellence	Reputation	Spontaneity
Forgiveness	Trust	Humor	Assertiveness	Harmony
Ambition	Focus	Enthusiasm	Gentleness	Sacrifice
Power	Curiosity	Open Mind	Optimism	Persistence
Status	Gratitude	Availability	Compassion	Routine
Fun	Simplicity	Recognition	Abundance	Appreciation
Growth	Frontality	Inner Peace	Self-control	Luxury
Clarity	Protection	Description	Benevolence	Vitality
Pleasure	Adventure	Acceptance	Organization	Sharing

Figure 6.14 Table to choose the eight values from

2. Answer the following questions, and based on the answers, try to find underlying values that you did not identify in the previous box.
   - If you had only a week left to live, what would you do?

- Now imagine that you lived to be 100 and that you are at your birthday party with dozens of friends, family, and colleagues. Write down the speech you would give that day, mentioning what you are grateful for.

3. Of all the values you selected, based on the first chart and those you obtained from the answers to the questions, now choose the five values that are most important to you and list them, assigning each one a letter (A–D) and a score.

	My Top Five Values
A	
B	
C	
D	
E	

Figure 6.15 Chart of the five most important values

4. Now, let's put the values in order, creating a hierarchy of values. Pay attention to the following points:
   - Which of the following values is most important to you? A or B? Give a point to the most important value between the two.
   - Repeat the procedure, comparing A and C, A and D, until all values are compared to A. Then compare B and C, B and D, and so on for all values. Always compare one value with the others below.
   - When finished, count the points for each value. If two or more values have the same score, ask: *Which of these two values is most important to me?* And add a point to that one. Repeat this step so that all values end up with different scores.

	Value	Points	Total
A			
B			
C			
D			
E			

Figure 6.16 Value hierarchy chart

5. Check the final score and write down the list of your values (highest to lowest score).

	My Five Values
A	
B	
C	
D	
E	

Figure 6.17 Chart of the five final values ordered hierarchically

6. Moment of reflection:
   - What do you think of the final result?
   - How do you think these values reflect your attitude towards the world?
   - Are you applying these values in your daily life? Or does your daily life actually conflict with these values?

Practical instructions

– Encourage students to think about what is important in their life.
– Question in what situations, personal or with others, they felt uncomfortable. Review that situation to understand what was bothering the student.

6.2.4 *Role Identification* (adapted for the Professional Identity Definition stage)

Short description

This tool offers the opportunity to reflect on one's own personality and take a step further on the exploration path by identifying what one's specific role in society is. The question to answer here is not *What are my talents?* but *Who needs my talents?* or *For whom are my talents useful?*

Benefits for students

It is important to first validate your suitability before submitting a job application. Everyone is suited for some roles and this tool will allow you to find the ones that are suited best to you. This tool will help you create:

- A connection between the desirability of your talents and employment opportunities.
- An increased confidence in yourself and your talents.
- An assurance that you can enter into a career of your preference.

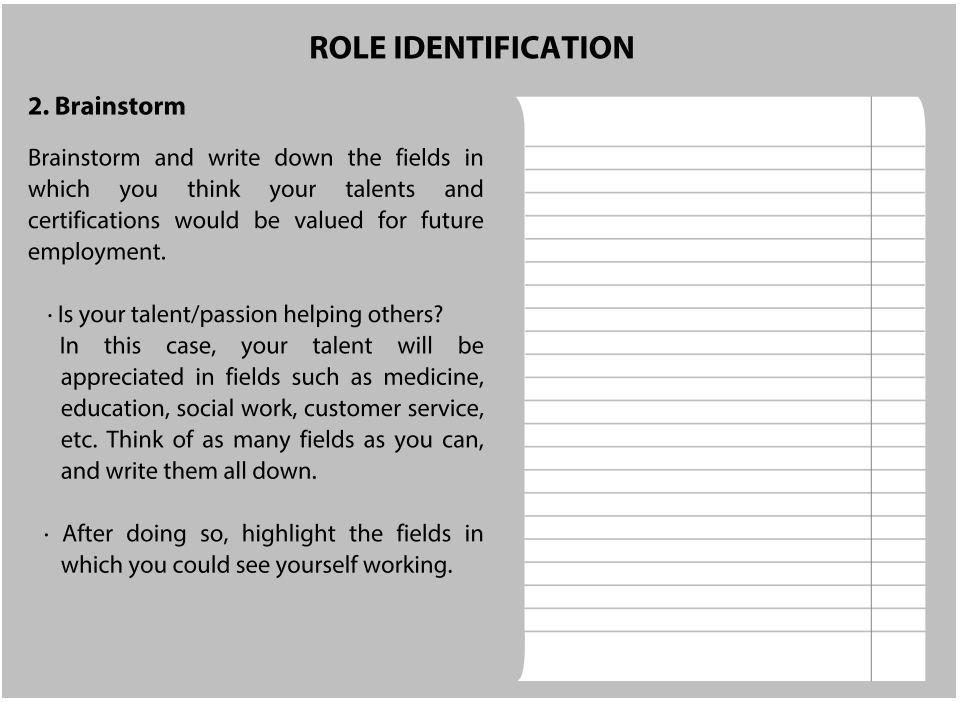


Figure 6.18 *Role Identification* tool template (adapted for the Professional Identity Definition stage)

Tool's usage scenario for students
Scenario: How to develop *Role Identification*?
Professional Identity Definition stage – *Brainstorm*
Having gained better insight into your background, ambitions, and talents, it is time to proceed with the next stages, in which you will list the future employment domains in which your talents will ostensibly be valued. For instance, the talent/passion for helping others will be appreciated in fields such as medicine, education, social work, customer service, etc. Think of as many fields as you can and write them all down in the *Role Identification* template. After that, underline those fields in which you could see yourself working.

Practical instructions
- Encourage students to list as many fields as come to mind, without setting themselves any limits.
- Advise students to write down their answers in the form of short sentences or bullet points to avoid confusion.
- If you find that students are confused, you can suggest that they conduct a quick Internet search to see where their talents fit best.

– Help students to take proper time to self-reflect before highlighting areas in which they could imagine themselves being professionally active. Tell them to keep the pros and cons of each job in mind.

6.2.5 *Set Goals*
(adapted for the Professional Identity Definition stage)

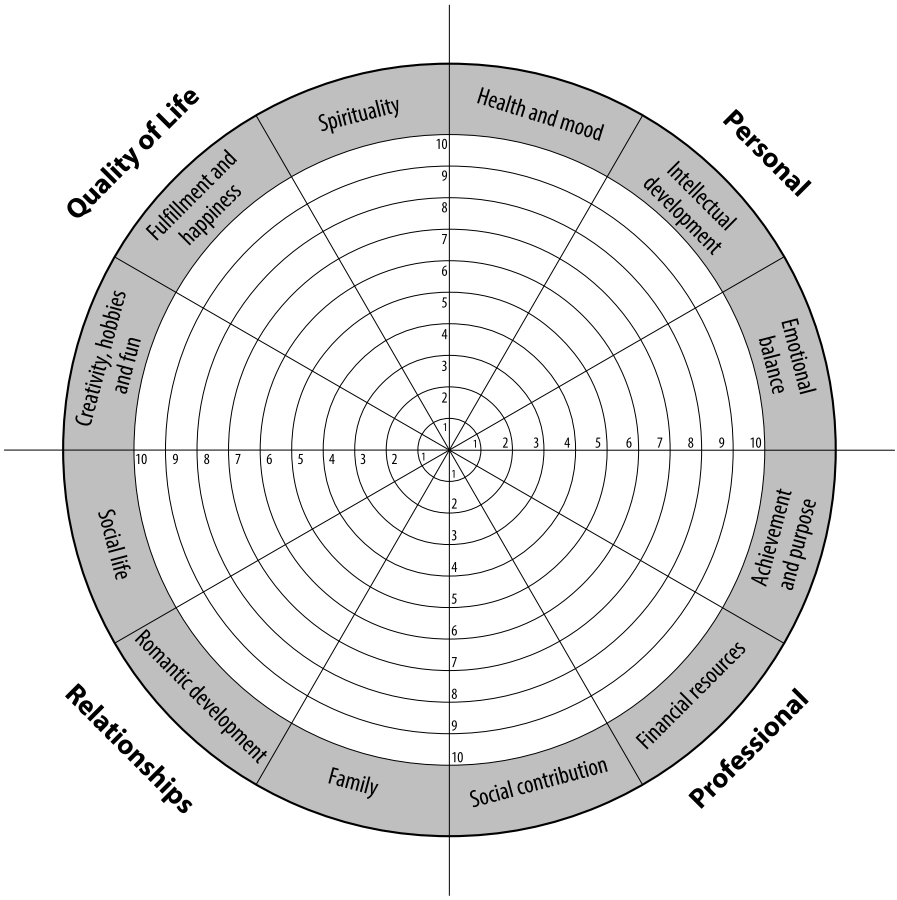


Figure 6.19 The *Set Goals* tool template (adapted for the Professional Identity Definition stage)

Short description

As presented by Moreira (2019), setting goals contributes to motivation, achievement, and purpose in life. If we don't know where we're going, any path will do. By setting goals, we gain more clarity about our lives and channel time, energy, and effort to what really interests us. To do this, we will use the *Wheel of Life* tool, which represents our life divided into several slices, allowing us an overview as well as a chance to look at each one individually.

In this exercise, the idea is to write down in each slice a value from one to ten (with ten being the maximum value) according to one's current level of satisfaction in that area of life. This ultimately yields a graph representing the person's life, showing the level of satisfaction in each area.

Benefits for students

- Gain awareness of how our life is going so that we can engage in social responsibility actions.
- Help to see where we are at the moment and how we can have an impact in the area of social responsibility.
- Consider where we want to go, achieving more concrete goals, in connection with social responsibility actions.

Tool's usage scenario for students
Scenario: How to develop *Set Goals*?
Professional Identity Definition stage

1. If your degree of satisfaction in a given slice is not ten, what does it take to get there? What needs to happen? What would you like to have or do? Write down everything you want to achieve in that area. How to do it doesn't matter at the moment: just write down what you really want to achieve, even if you think something is impossible. Write down everything that comes to mind.
2. Now, in front of each objective you have chosen, write one of the following: one, three, five, or more than ten. These numbers represent the number of years within which you want to achieve the objective. You want to be ambitious, but also realistic.
3. Choose one of the objectives to work on – preferably the one you can realistically accomplish within one year.
4. Let's make the objective **SMART** (Specific, Measurable, Achievable, Relevant, Temporal).
   S: **Specific**. What do you really want to achieve? Be where? With whom?
   M: **Measurable**. How are you going to measure your goal? In what unit of measure?
   A: **Achievable**. We must be ambitious, but realistic.
   R: **Relevant**. Do the objectives match your values?
   T: **Temporal**. Enter the date on which you want to reach your goal. Day, month, year.
5. Write out this analysis of your selected objective.
6. This step involves breaking your objective into phases, so that you know where you have to be at different stages of time with respect to that particular goal.

- Six months from now
- In a month
- A week from now

7. Finally, write down the step you are going to take tomorrow or, at most, the day after tomorrow, to start your journey towards your goal.

Practical instructions

– Encourage students to consider long-term goals.
– Ask questions about what they hope to achieve in life, or how they see themselves in the future.
– The following question can be a good key to unlocking one's thinking on this matter: "If you could have and do everything you wanted, assuming that money was no problem, what would you want to have and do?"

6.2.6 *Talent Identification* (adapted for the Professional Identity Definition stage)

Figure 6.20 *Talent Identification* tool template (adapted for the Professional Identity Definition stage)

Short description
This tool allows one to gain a better understanding of oneself and one's abilities by identifying one's talents. Through this method students will discover how to be most useful in society by exploring the skills, values, and qualities that make an individual essential to society. In this stage they will be able to identify the positive traits that have been described in each letter as well as the traits that are common in all letters and frequently appear in them.

Benefits for students
- You will identify the traits and talents your loved ones 'see' and appreciate the most in you.
- You will gain a unique perspective to evaluate each of your decisions and actions, both in a professional and personal environment.
- You will learn that you are seen as an irreplaceable talent.

Tool's usage scenario for students
Scenario: How to develop *Talent Identification*?
The *Talent Identification* tool is designed to showcase the distinctive talents of a person and the specific and unique behavior that connects them. The uniqueness of each person is emphasized through the letters of their loved ones. The aim is to remain empirical and non-idealistic when the letters are composed. You will discover the right way to combine all the information in their letters and look for units of meaning. This is a methodology that will re-energize you by offering you a solid foundation for self-confidence and unlocking your potential. As it involves other people, this methodology is based on putting the collective intelligence of all at your service. The *Talent Identification* tool will allow you to reveal your essential social contribution through and with others. The process is designed in two successive stages, the following being the second one:

Professional Identity Definition stage
In this stage, units of meaning of each of the received letters are extracted with the aim to discover the leading qualities of your personality. The main idea is to read through all your letters together with another person, having them underline the character traits, talents, or skills that appear in every letter. Subsequently, write down all the traits/talents/skills that reappear in more than one letter. To give an example, if you have a good voice, and this talent of yours reappears in three letters, you write it down and place the number three next to it.
- This part allows the groups to associate the units of meaning with each other.
- From these associations, the 'Supertalents' of each participant will emerge.

Practical instructions

– At this point, suggest to the students that they read their personal letters together with a person who can offer an unbiased viewpoint. Instruct them to read each letter carefully and let the other person point out the positive qualities they have noticed. Afterwards, it is the student's turn to highlight those that they think were missed.

6.3 Career Scenarios Exploration stage

6.3.1 *Career Mind Mapping* (adapted for the Career Scenarios Exploration stage)

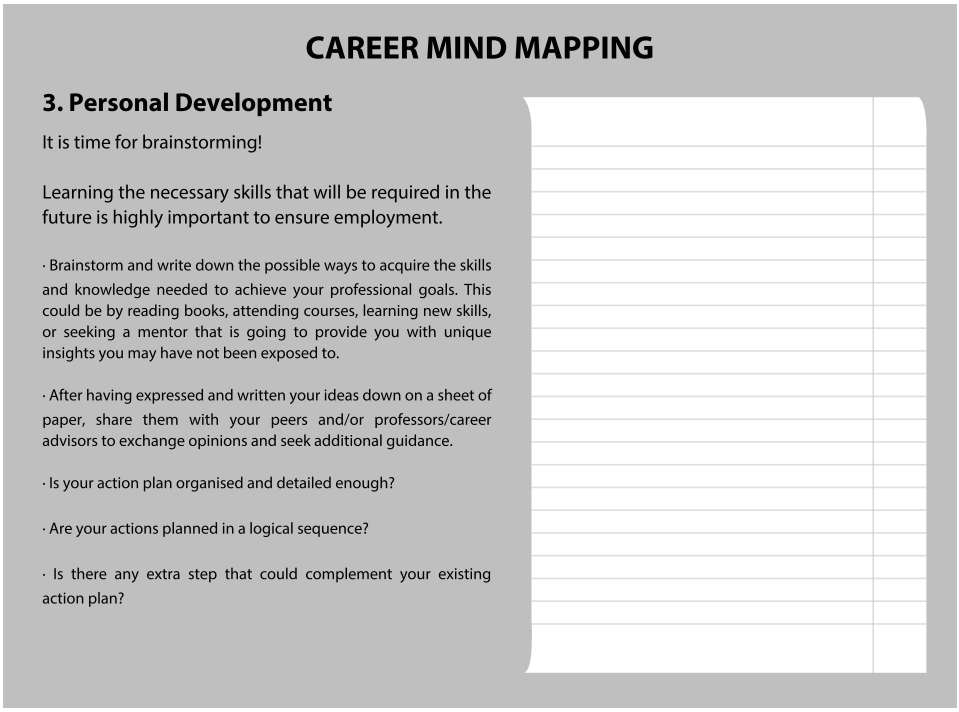


Figure 6.21 *Career Mind Mapping* tool template (adapted for the Career Scenarios Exploration stage)

Short description

Career planning is one of the most essential parts of everyone's lives. Therefore, developing a mind map is a useful tool to organize career planning in the most effective way. This tool will help you to explore and manage your career path through three different stages:

1. Research (go to page 148)

2. Reviewing and planning (go to page 166)
3. Personal development

Following the series of self-reflection in the previous stages, students are encouraged to not only consider the growth opportunities of developing the identified skills, but also to share these findings and thoughts with their peers, mentors, and professors.

Benefits for students

Having a well-defined plan of action aimed at professional fulfillment is very useful for every individual, as it creates a filter when it comes to making professional choices. Whether the students want to explore a career path or improve their chances of climbing the ladder of professional success, this tool will help them understand their needs as well as limit the spectrum of career opportunities that would be most suitable for their personality/work mentality.

Tool's usage scenarios for students

Scenario: How to develop *Career Mind Mapping*?

Print out the *Career Mind Mapping* document. Open your computer and start your research on the topics suggested in the sheet. Give yourself some time to think before answering the key questions presented in the document and write down answers in the form of short phrases or bullet points.

Career Scenarios Exploration stage – *Personal Development*

Learning the necessary skills that will be required in the future is highly important to ensure employment. Think of ways to acquire the skills and knowledge needed to achieve the professional goals. This could be by reading books, attending courses, learning new skills, or seeking a mentor who will provide you with unique insights you may have not been exposed to.

- Brainstorm how you can acquire useful skills for your career development.
- Having expressed and written your ideas down on a sheet of paper, share them with your peers and/or professors/career advisors to exchange opinions and seek additional guidance.
- Is your action plan organized and detailed enough?
- Are your actions planned in a logical sequence?
- Is there any extra step that could complement your existing action plan?

Practical instructions

– Explain to the students that it is not necessary to write an excessively long text, but it is sufficient to respond in the form of short answers or bullet points.
– The group sharing and brainstorming phase is the one most appreciated by students, so give it the right time and attention!

– Try to maintain an open mindset when exchanging your insights with your peers, mentors, and professors. Also, think about what advice you can provide to the other participants.

6.3.2 *Decision Trees*

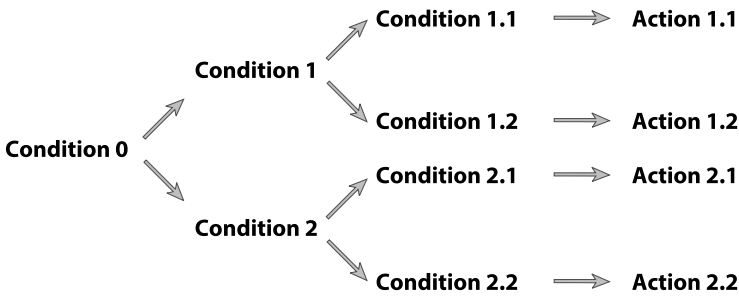


Figure 6.22 The *Decision Trees* tool template

Short description
This tool helps to define alternative paths of development. Depending on the conditions, we can draw alternative routes to follow and alternative actions to take. The main strength of this tool is to show clearly in a graph the different possibilities of the situation under analysis, e.g., alternative and/or contingency paths of development. The main limitation concerns their instability, e.g., a change in one of the initial conditions or data can lead to a significant change in the entire structure.

Benefits for students
- Help students with decision analysis and choosing the best options with social responsibility impact.
- Help students to identify a strategy most likely to reach a goal in terms of social responsibility.
- Help students to evaluate the best actions concerning social responsibility goals, assessing possible consequences, including chance event outcomes, resource costs, and utility.

Tool's usage scenario for students
Scenario: How to develop *Decision Trees*?
After processing the previous information, defining conditions, and making the necessary decisions with the use of aforementioned tools, e.g., *Cognitive Reconstruction*, *Change of Perspective*, *Identify Your Values*, *Set Goals*, *Personal SWOT Matrix* (adapted), *Rich Pictures*, and *Personal Business Plan Canvas*, it is now time to map out clearly the different possible (or contingency) paths of development.

This is the role of *Decision Trees*, which look like the one presented in Figure 6.22. With this tool, students should start to draw a draft of various possibilities by arranging the different variables highlighted up until now and processing them one by one. The result will be a 'rough draft' that should then be revised and shaped into a stylized final draft of the *Decision Tree*. As can be seen in the figure, students can draw more than two development paths. It may be interesting to draw a *Decision Tree* involving personal matters and another for education/professional matters. Doing that may ultimately make it easier to draw a final *Decision Tree* that combines both personal and educational/professional matters.

Practical instructions

Decision Trees can be drafted with the help of the following questions:

1. What is my present situation/starting point?
2. Which next step looks more attractive to me?
3. What follows after this step? Two or more alternative ways are possible.
4. After repeating this process until all the desirable possibilities are exhausted, return to point 2 and explore a new development path.
5. Repeat point 4 as many times as necessary.

6.3.3 *Odyssey Plan*

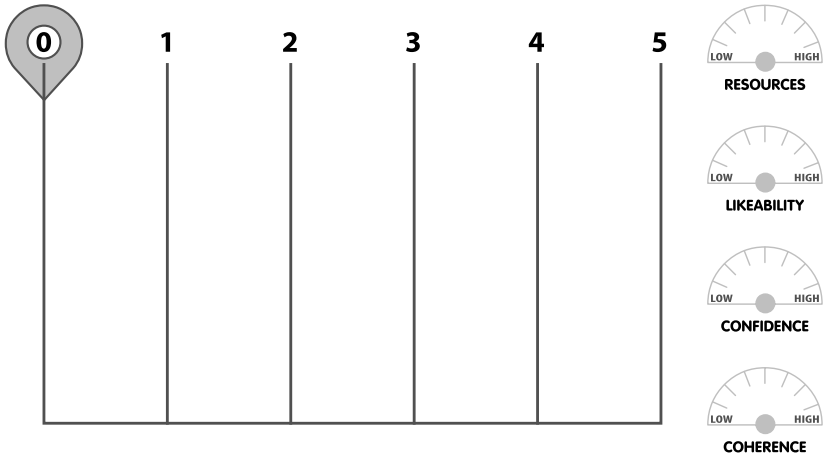


Figure 6.23 The *Odyssey Plan* tool template

Short description

One of the best ways to design your life is to design several lives. In this exercise, called *Odyssey Plan*, we ask you to imagine and write out three different versions of the next five years of your life. Like Odysseus, who spent a lot of time traveling

and was forced to change his course many times, each of us has various possible paths that can lead to happiness.

Benefits for students

This tool helps students evaluate three different plans in terms of resources needed, confidence in the plan, consistency with one's values and, last but not least, how much they like the idea of living such a life. If the mind starts with multiple parallel alternatives, it is not prematurely committed to one path and stays more open and able to receive and conceive more novel ideas.

Tool's usage scenario for students

Scenario: How to develop *Odyssey Plans*?

You have to design three different *Odyssey Plans*, representing three possible paths for the ensuing five years, scheduling activities for every year to explore different lives. Each *Odyssey Plan* has a different starting point and relates to a different situation.

- *First Odyssey*: *What are you already doing?* Everyone already has a path in their mind, so for one possible path it makes sense to start from what we are already doing. Which job and which activities? How are you planning to go on?
- *Second Odyssey*: *What would you do if you were forced to earn money starting tomorrow?* Imagine that the first Odyssey is not possible anymore and you have to earn money starting tomorrow. It happens – sometimes a job comes to an end, and you can't do anything about it. What would you do?
- *Third Odyssey*: *If you didn't have to worry about money and time, what would you do?* Imagine you are totally free to begin doing what you like. What would you choose?

Try not to create a hierarchy among the three *Odyssey Plans* – they must be all considered as equally viable possibilities for your future life. Remember to also include personal and non-career events such as marriage, leisure activities, etc.

The **elements** that are needed to create a great *Odyssey Plan*:

- A visual **timeline** of the next five years (represented in Figure 6.23).
- A **title** for each life in the form of a six-word headline describing the essence of each alternative.
- **Questions to be answered**, preferably two or three, to test assumptions and reveal new insights. In each potential timeline, you will investigate different possibilities and learn different things about yourself and the world. What kinds of things will you want to test and explore in each alternative version of your life?
- Four different **dashboards**, one for each of the following items, so that each life can be evaluated in relation to these elements (represented in the image):
  - *Resources:* how many resources are needed to develop this full-zero life? Resources can be understood as money, time, energy, etc.

- *Likeability:* how much do you actually like this life plan?
- *Confidence:* do you feel confident in this life plan or do you have uncertainties regarding its implementation?
- *Coherence:* does the plan make internal sense? And is it consistent with you, with the ideas, values, and principles that guide your life?

Practical instructions

- During the development of the third *Odyssey Plan* related to the lack of economic constraints, students are often very enthusiastic about planning their lives, and imagine the first 1–2 years traveling all over the world. But at a certain point boredom can take over and a lack of purpose can be felt. Try to help students focus on that point and ask themselves what they really would like to do in their lives to be fulfilled but without worrying too much about the financial factor.
- This tool is definitely one of the most complex to comprehend and put into practice, requiring a significant amount of time and effort. It is critical to assist students in understanding the value of expressing such information in practice and reasoning about their future in such a systematic manner in order to gain valuable insights for career planning.
- Help students realize the importance of considering all three possible Odysseys at the same level: this allows them to explore and collect as many ideas as possible that they would not have considered otherwise.

6.3.4 *Personal SWOT Matrix*

Short description

According to the methodology presented by Mind Tools, *Personal SWOT Analysis* is a technique that helps to observe which conditions existing in your life are in your favor in relation to a desired final state, as well as what you can improve in order to achieve it. To this end, it is necessary to identify and evaluate potential approaching opportunities and threats. When you understand the existing conditions, you can influence what follows. This tool allows the assessment of any individual's situation through the separation of the internal and external worlds and the positive and negative perspectives: strengths and weaknesses (internal), opportunities and threats (external), aligning strengths and opportunities (positive) on one side and weaknesses and threats (negative) on the other.

Benefits for students

- The *Personal SWOT Matrix* helps students to frame the understanding of their strengths and weaknesses achieved with the previous techniques, e.g., *Cognitive Reconstruction*, *Change of Perspective*, *Identify Your Values*, and *Set Goals*.

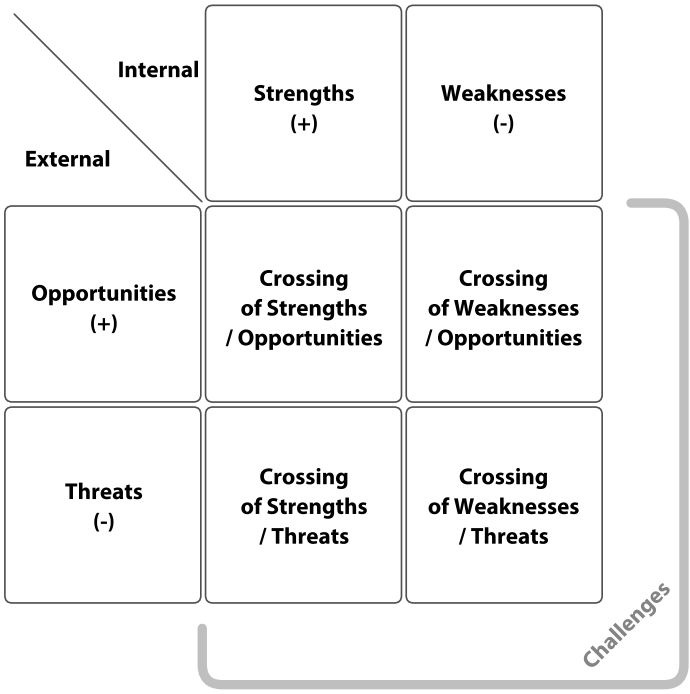


Figure 6.24 The *Personal SWOT Matrix* tool template

- Helps to frame the opportunities and threats they could identify in the context of social responsibility.
- Helps to identify the challenges arising from the crossing of the four quadrants of the *SWOT Matrix*.
- Helps to leverage challenges in developing specialized talents and abilities to be used in a social responsibility context.

Tool's usage scenario for students
Scenario: How to develop *Personal SWOT Matrix*?
After previous information processing using the tools introduced up until now, e.g., *Cognitive Reconstruction*, *Change of Perspective*, *Identify Your Values*, and *Set Goals*, it is possible to create an **initial assessment framework**. Individuals should complete the initial *SWOT Matrix* using the questions provided for each field. In the handling of quadrants, it is recommended that the annotations that have been created throughout the previous phases of this personal development process are collected and written on post-it notes in order to be attached to the right fields, i.e., strengths, weaknesses, opportunities, or threats. Having done this, the variables must be transposed to the initial *Personal SWOT Matrix* in order to facilitate the crossing between the four quadrants provided in this methodology.

The next step will be to link the variables that make sense within each 'challenge quadrant' according to the corresponding axes. This is a creative work that aims to bring to the awareness of each individual new possibilities and challenges. The *Personal SWOT Matrix* can be formulated with the help of the following questions.

Students should ask themselves:

1. How can I leverage the opportunities I have identified with the strengths I have?
2. How can I deal with threats if I call my strengths into question?
3. How can I improve my weaknesses to take full advantage of the opportunities?
4. How can I improve my weaknesses to be able to resist the threats?

Strengths

What positive and differentiating characteristics are there in your personality (skills, certifications, education, or connections)?

What do you do very well, or better than anyone else?

What do other people usually name as your strengths?

What achievements are you most proud of?

What are your core values?

Are you part of any network/association/group that brings you different experiences or knowledge?

Does your network of contacts allow you to meet someone relevant to your employment vision?

Think of all these responses from your personal perspective and also from the viewpoint that people around you tend to have about you. Do not be modest or shy, for it is better to be as pragmatic as possible, since knowing and using your strengths can make you happier and more fulfilled at work or in your hobbies.

Weaknesses

What tasks, as a rule, do you avoid because you don't feel confident when performing them?

What do people around you tend to comment on as something you don't do as well or are not so competent at?

Are you confident with the training you have? If not, where do you feel most insecure?

What skills do you think you have not trained so much and do you regret that?

What are your negative work habits (consider whether you are late, disorganized, have an explosive temper or do not handle stress so well)?

Are there personality traits that make you miss some opportunities (for example, consider if you are afraid to speak in public but need to give presentations to clients)?

It is important that you consider it from a personal and internal perspective, but also reflect on the input you receive from the people around you and who usually work with you. Are there any criticisms that you hear on a regular basis? Do co-workers consistently outperform you in any area or competency? Be realistic: the ability to face unpleasant or less positive truths is very relevant to your development.

Opportunities

Are there new technologies emerging in your area that can help?

Can you get help from or access other people over the Internet?

Do you have a network of strategic contacts who can help or advise?

What trends do you see happening in your midst? Do you think you can take advantage of them?

Are your colleagues failing to do something important? If so, can you make up for that absence or inability?

As a rule, you can find interesting opportunities at networking events, workshops, or conferences. In addition to this reasoning, it is important to take into account the previously identified strengths, wondering if any opportunities open up. The same reasoning should be applied to the weak points, considering the possibility of creating opportunities by tackling those weak points.

Threats

What obstacles do you currently face in your midst?

Do you have colleagues competing with you for projects or roles?

Do you feel that the way of doing things is changing? Are you managing to keep up with this trend?

Does technology threaten your core position or competence?

Do any of your weaknesses enhance the threats that are emerging and lead to a position of fragility?

This reasoning, normally difficult to do, brings important information, as it shows what needs to be done to resolve issues that concern us and puts problems in perspective.

Practical instructions

- If the group members know each other, you can ask students to identify strengths and weaknesses in the group members, leaving post-it notes at each student's seat.
- Ask the suggested questions out loud and ask students to write down the first thing they think of.
- Afterwards, give the students a moment of reflection to rank and select what is reflected upon.

6.3.5 *Rich Pictures*

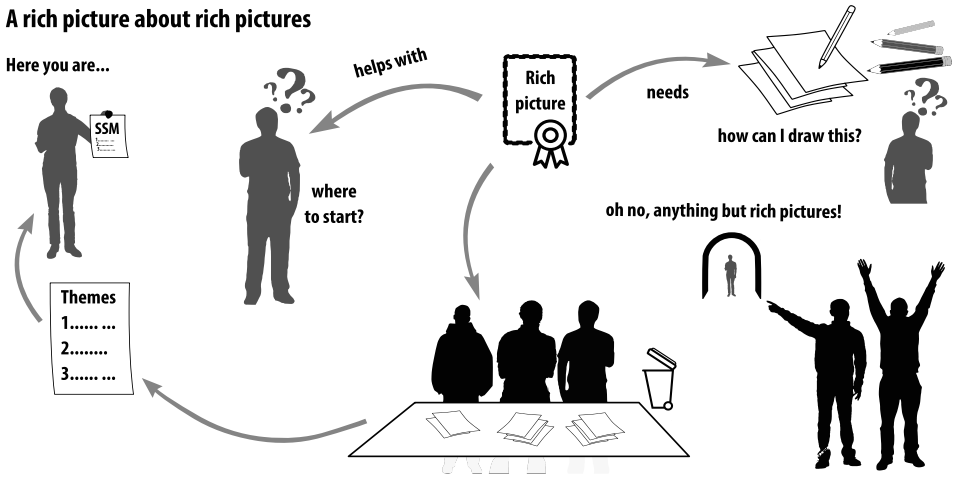


Figure 6.25 The *Rich Pictures* tool template

Short description

This tool portrays a situation graphically, consonant with the saying that "a picture is worth a thousand words." The activity entails building a kind of a map of one's situation, depicting the dynamics of all the variables and factors involved. Using paper, pencils, and creativity, the assignment is to draw, in a clear way, the situation at hand, which is called a 'problematic situation'.

Benefits for students

- It represents clearly all that is involved in the situation under analysis and its dynamics in terms of social responsibility.
- It builds a kind of a map of the situation with all the variables and factors involved and shows their dynamics in terms of social responsibility.
- It enables comparisons between group members in the context of social responsibility.

Tool's usage scenario for students

Scenario: How to develop *Rich Pictures*?

After processing the information gathered with the use of all the previous tools, i.e., *Cognitive Reconstruction*, *Change of Perspective*, *Identify Your Values*, *Set Goals*, and *Personal SWOT Matrix*, the next step is to draw a 'big picture' to obtain an overview of the whole situation and its dynamics.

We advise individuals to therefore draw an initial *Rich Picture*, organizing the different variables highlighted with the tools mentioned in the previous paragraphs,

using arrows to depict the dynamics present between them, i.e., the sequence between them and their links.

Practical instructions

- Some situations can be better represented with structures like organograms.
- The first drafts can be a bit confusing because of the crossing of arrows and the position of related variables in different extremes of the picture.
- It is normal to develop several *Rich Pictures* until you arrive at a 'clean' and clear one where it is easy to follow the dynamics between the different variables and their arrangement in sub-situations of the same nature (distinctive areas in the picture) inside the global situation at hand.

6.4 Career Prototyping and Testing stage

6.4.1 *Failure Reframe*

Failure	S	W	GO	Insights

Figure 6.26 The *Failure Reframe* tool template

Short description

It is certainly desirable to think of oneself as a curious, action-oriented life planner who enjoys prototyping and building one's way into the future. However, attempting to design one's life in this manner certainly brings with it a higher probability of failure. As a result, it's critical to comprehend what 'failure' means and how to become 'immune' to failures. Insofar as everyone makes mistakes, it is very helpful to have a tool to help keep track of the failures and learn from them. There are different kinds of failures: this tool is useful because it allows us

to identify failures, classify them, and demonstrate that everyone can learn from their failures to avoid repeating them in the future.

Benefits for students
This tool can be used to turn failure into growth and thus create a new habit. In this way, it is possible to initiate a new way of thinking and thereby increase one's immunity to failure.

Tool's usage scenario for students
Scenario: How to develop *Failure Reframe*?
The exercise consists of three steps:

1. *Record your failures*: think of situations in which you messed up and write down the mistakes you made in them. You can choose any time frame: a week, a month, a year. You can also consider the top ten failures of all time!
2. *Categorize your failures:* it's useful to categorize failures into three types (Screwups, Weaknesses, Growth Opportunities) so you can more easily identify where the growth potential lies.
   - **Screwups** are activities that you normally carry out correctly but you did wrong one time. In this case there is not much to learn, it is something you usually do well. The only thing to do is to acknowledge the mistake, perhaps apologize, and move on.
     For example, a screwup could be not having paid your bill because you marked the wrong due date in your diary. Usually you pay regularly – in this case it was a mistake and will not happen again.
   - **Weaknesses** are failures caused by repeated errors that we make often. We know the cause of these errors well; we have already tried to improve ourselves and maybe we've actually improved, but the fact is that these failures are part of our nature, so the best strategy is to avoid them. For example, always waiting until the last minute to get something done can be bad habit, and therefore a weakness. It is part of one's way of doing things, and no matter how hard one tries to change it, it is unlikely to be overcome completely.
   - **Growth Opportunities** are failures which were not necessarily unavoidable, or, at least, they don't have to occur next time. They have a clear cause, and the remedy is possible and available. Our attention is focused on these types of failures: from these errors we can get the best growing insights. Growth Opportunities invite us to improve. They help us to identify what does not work, and what we should do differently next time.
     For example, being criticised by one's boss for poor performance can be the kind of a mistake that leads to an opportunity for growth. In fact,

once such an instance has been identified, it is important to analyze it and investigate the reason for its occurrence. In this way we should be able to avoid repeating the same dynamic the next time and instead to turn the error into an opportunity for growth.

3. *Identify growth insights*: look for insights and suggestions to reframe failure and capture the lesson that spurs us to change things for the future. Write them down and put them into practice next time.

Practical instructions

- This exercise is not complicated but can offer great benefits. Suggest to the students to focus on problems that might offer them lessons to learn in order to do better next time. At the same time, it is important not to blame oneself needlessly for weaknesses or errors beyond our control. Reframing mistakes can go a long way in developing one's immunity to failure!
- To create a habit of converting failures into growth points, suggest to students to do this exercise once or twice a month. This should make it easier to consolidate a new way of constructive thinking.
- Sometimes students struggle with the term 'failure'. Help them to understand that there are no right or wrong failures/mistakes, and they can be quite minor – even forgetting a friend's birthday can be considered a 'failure'. It is necessary to understand why the mishap feels like a failure and start from there in order to develop a certain level of immunity. Immunity to failure does not mean avoiding the experience of not having things work out as one would have wished, but it does mean avoiding overly negative feelings and transforming mistakes into lessons for the future.

6.4.2 *Personal Business Model Canvas*

Short description

The *Personal Business Model Canvas* (PBMC) is a one-page professional development tool. The primary assumption is that every job position in an organization is related to a human resource necessary for getting a task done. By completing the given tasks, a business creates value for its customers. Any employee working in a specific job position can be considered a human resource with his or her own *Personal Business Model*.

The *Personal Business Model Canvas* includes nine key building blocks related to a staff member holding a specific job position. In this view, the *Customer Segments* (*Who you help*) component concerns those who will pay to receive benefits or want to have a job done. The *Roles/Relationships* component enables us to understand the context of a staff member's interactions when holding a specific

Figure 6.27 *Personal Business Model Canvas* tool template

job position. The most essential aspects of the *Resources* (*Who you are*) component are interests, personality, abilities, and skills, including knowledge, experience, and personal and professional contacts. Having identified all these items for a specific job position, the fundamental requirements for a prospective employee become clear. *Key Activities* (*What you do*) describe the most critical tasks a professional must carry out when getting jobs done. If the activities are performed effectively and efficiently, the staff member can produce a unique value proposition that transforms into a company value proposition. The benefits provided by a staff member in a specific job position are delivered via the proper *Channels* (*How you deliver*). No job position is an island in an organization – nowadays, companies base the implementation of their projects on intensive teamwork. Thus, it is good to know how a specific job position relates to the partners who can help. This is the function of the *Key Partners* (*Who helps you*) module in the *Personal Business Model*. The last (but not least) component describes a job position's financial and non-financial sustainability, with such areas as *Costs/Consequences* and *Compensation/Rewards*. When talking about cost structure, it is crucial to consider everything a prospective employee will give – time, energy, and money. *Revenues* (*Compensation/Rewards*) describe all income sources and soft benefits.

With the knowledge of basic building blocks of *Personal Business Models* describing job positions, a student can plan and re-plan their career in terms of essential skills and knowledge areas and thus gain a better understanding of the ecosystem of specific occupations.

Benefits for students

- Better planning of the educational track. The *Personal Business Model Canvas* develops the ability to select the most valuable subjects at university from the perspective of Professional Identity, as well as additional non-formal educational support (online courses, podcasts, webinars).
- Identification and constant monitoring of personal resources development. The *Personal Business Model Canvas* can be used to portray the current state of a student's development in skills, knowledge, and interests.
- Developing and shaping Professional Identity. After a student discerns the areas she is most interested in and passionate about, the *Personal Business Model Canvas* can support the gradual shaping of her Professional Identity.
- Early planning of career development. The *Personal Business Model Canvas* can be developed for specific job positions a student is interested in and used as a reference model in personal resources development. It will also allow her to better understand the job market requirements regarding personal resources and find the gaps that should be reduced during education.
- Finding the best fit between personal resources and market requirements. The *Personal Business Model Canvas* can be used to assess if the student is well-prepared for specific market requirements related to the occupation she is interested in.
- Better understanding of the future job position environment. The *Personal Business Model Canvas* helps discern the specific ecosystem that the occupation is part of. What proves fundamental in this context is doing an analysis using the components of *Who you help, Who helps you, How you help, Roles/Relationships, How you deliver*.

Tool's usage scenario for students

Scenario: How to develop *Personal Business Model Canvas*?

Start to fill in the canvas sections to draft the first version of your *Personal Business Model*. Answer the key questions (KQs) presented below and write down answers in the form of short phrases on post-it notes.

Field: *Who you are & what you have*

KQs: Are you interested in your work/studies? What do you get most excited about in terms of work/study (work with people, ideas, outdoor work, etc.)? Rank your preferences. What are your abilities (things you do naturally without effort) and your skills (things you've learned to do)? Do your personality tendencies match your field of study? What are your other resources (personal network, experience, particular skills, etc.)? Are you not using any ability or skill which is important to you (that distinguishes you from others)?

Description: This field describes who you are, what interests you, what you can do (your abilities and skills), your personality, and what you have (knowledge, experience, personal and professional networks, and other big or little resources or assets).
Tip: This process of your personal resources' discovery may be significantly supported by tools from the Self-Reflection, Professional Identity Definition, and Career Scenarios Exploration stages.

Field*: What you do*
KQs: What are the critical activities you perform each day that distinguish your actions from others? Which of these Key Activities may provide a Value Proposition?
Description: This field should define the tasks you perform regularly. Note down only the key activities you periodically perform for Recipients, and you don't necessarily need to describe the value you get out of them yet.
Tip: Instead of a long list of activities, reduce the list to one that includes only the essential activities.

Field*: How you help*
KQs: What Value do you deliver to Recipients? What are the problems you solve or the needs you satisfy? Describe specific benefits that Recipients enjoy because of your work.
Description: This field helps you define how you help people with whom you are cooperating and what value you get from them. This is the key column of the canvas. What is the job you will get done and what benefits are received by the Recipients?
Tip: Think about Key Activities and how these result in Value offered via various Channels.

Field*: Who you help*
KQs: For whom do you create value? Who may be the most important Recipients of your activities/work and why? Who may depend on your work to get their jobs done?
Description: This field helps you think of those whom you support. These are your potential employers, workmates, or different groups of people you will be cooperating with during your professional career development. This can include the people at your university who depend on your work or assistance and/or anyone else who benefits from your activity.

Field*: How you interact*
KQs: What kinds of relationships do your Recipients expect you to establish and maintain with them? Describe the types of relationships you have now. What is the primary goal of your Recipient Relationships?

Description: This field helps you define your relationships with Recipients and the role you play in their professional life. Consider adding, removing, growing, or reducing one (or more) communication method(s) (see Channels and Key Activities).

Field*: How they know you & how you deliver*
KQs: Through which Channels do you want to reach the Recipients (how to find out about you)? Which Channels work best? How do you deliver your assets (knowledge, skills, competencies)? How do you ensure the Recipient's satisfaction? In what new ways could you create awareness or encourage evaluation (social media, online presentations, etc.)?
Description: This field should contain information related to how your potential Recipients find out about you, how you help them appraise your Value, how new Recipients hire you or use/buy your assets, how you deliver Value to them, and how you continue to support them and ensure they are satisfied.

Field*: Who helps you*
KQs: Who helps you provide Value to others? Who supports you in other ways and how? Do any partners supply Key Resources or perform Key Activities on your behalf? Should you consider finding an additional partner (see Value Proposition)?
Description: This field helps identify the Key Partners that support you as a professional or help you do your job successfully. They may be individuals who support you with either resources, motivation, advice, or opportunities. These individuals could be your colleagues or mentors at work, university, people in your professional network, family, or friends.

Field*: What you give*
KQs: What do you give to your work (time, energy, etc.)? What do you give up to work (family or personal time, etc.)? Which Key Activities are most 'expensive' (draining, stressful, etc.)?
Description: This field is used to define costs; namely, what you give and use your resources for, like your work, time, energy, and money. Note down all costs associated with your work (for example stress, dissatisfaction, lack of flexibility, lack of personal growth opportunities, travel expenses, education, materials, etc.).

Field*: What you get*
KQs: For what Value are your Recipients truly willing to reward you? For what are they rewarding you now? How? How might they prefer to reward you?
Description: This column is used to describe your revenue and benefits. It may include salary, scholarship, possibility to participate in interesting projects/events, satisfaction, enjoyment, professional development, etc.

When everything is on the board, take a step back, reflect, and reconsider if needed. Check if you haven't missed anything, keeping in mind that the segments are interconnected. Try to understand these relationships. Check if every Recipient segment is linked to a Value Proposition and a Revenue Stream. Make sure everything on the left side is needed to support the right side of the canvas.

Practical instructions

- "Modifying your Personal Business Model can be a rather chaotic endeavor. This is due to the fact that – compared to organizations – people have far more non-work-related priorities and less clear and precise specific goals" (Clark 2012). This quote from the author of the method emphasizes that the creation of PMBC is a task that is less structured than creating the canvas of the business model of an enterprise.
- PBMC has many possible combinations of connections between its elements. Therefore, each one of them can be a starting point for changing the career path (it depends on the current situation of a person).
- Students may declare they have little knowledge on how changing one element could impact another. Usually, they need further explanation.
- Students/academic teachers should realize that the canvas evolves in time through iterations. Their own business model is dynamic and changes according to their decisions and development strategy. They should constantly reshape, readapt, and reinvent their *Personal Business Model*.
- The weight of the building blocks depends on the level of professional development, so it will be different for a first-cycle student, different for a graduate, and different for a working person.
- When the organization in which students are employed changes its business model, employees often have to do the same with their *Personal Business Models* that allow them to develop new skills.
- Students who seriously use a PMBC find it 'confusing' and 'hard'. It is not hard to prepare a PBMC that looks good, but it will be ineffective if it fails to pay attention to the competition in the market (the real state of the market, not an imaginary one).

6.4.3 *Support Circle*

Short description

The *Support Circle* is useful for gathering insights from other people following moments of personal reflection. They may be part of your team in the career design development process or your friends, fellows from university, or family members. They can help you during a brainstorming session by providing support through their network or even just by listening to what you have to say about

Figure 6.28 The *Support Circle* tool template

your situation. In several tools (e.g., *Odyssey Plan*) there are some problems that you cannot solve alone, and the same applies on a broader level, to life in general. For this reason, it is very important to listen to others' suggestions.

Benefits for students
Establishing a *Support Circle* can build a supportive environment that can help keep students' motivation level high despite the ups and downs they experience through the process.

Tool's usage scenario for students
Scenario: How to develop *Support Circle*?
This tool is divided into three tasks:

- At the beginning, you should analyze your tools and related initial reflections and insights (e.g., the three Odysseys) and choose an issue that you want to deal with. Other members of the team can help you to select one.
- Then, you should formulate a question about this issue. The question should be as accurate and clear as possible in order to be well understood by others who are probably unfamiliar with your plan, personal characteristics, and thoughts.
- Finally, you should define a *Support Circle* of people you trust. Share your question with each member of the circle and brainstorm possible answers.

Other team members are likely to offer thoughts and opinions that we haven't considered. Enabling others to think about our questions allows us to expand the range of possible answers, but it also allows us to learn much more about the differences between our own way of thinking and others' ways of thinking.

Practical instructions

- Recommend to students to not digress too much. Each one of them should write down a question; other students should refer to this question when answering.
- Sometimes students (or people in general) refer more to the person making a suggestion than to the suggestion itself. Help them consider the validity of the suggestion and separate it from the person making it.
- Students enjoy group discussion activities; attempt to incorporate these activities following reflective moments to keep them engaged and encourage them to consider new ideas.

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Conclusions and further research

In higher education institutions, standard approaches to career orientation cannot afford to accompany individual students in the reflection and self-assessment of their specific needs and skills for career development. Career counsellors are effective in terms of personalized paths for career orientation, but universities generally hire too few of them to provide individualized support to every student. By contrast, standard courses can accommodate a larger audience but are too generic to account for the diversity of students' needs and profiles. The BE(A)ST project has adopted a different and original approach to addressing the issue of implementing a large-scale personalized career orientation program. By adopting a student-centered design process, a set of effective training tools for career development has been identified and four profiles of students with regard to career proactivity and decidedness have been validated. To propose a customized and effective 'career awareness' program, each profile has been associated with a subset of tailored training tools. The Personalized Career Development (PCD) program offers a turn-key solution that allows professors or career advisors of an academic institution to support multiple students simultaneously in positive, proactive career awareness and development.

An intense qualitative and quantitative research project has been carried out over several years and in different countries to come up with the PCD program. We briefly sum it up in the following paragraphs.

Student interviews have been central for identifying students' unmet needs in terms of career counseling. What followed has been the identification of five major unmet needs.

Students would like to:

1) better understand their skills and abilities in order to choose a path that matches them;

2) feel part of a group in order to have a support network;
3) receive both concrete information on the various paths that can be taken and bureaucratic information;
4) put them in place, and
5) have experiences 'in real life' to try out their inclinations.

The unmet needs are strongly linked to the problem of career awareness and its four major components, namely: Job Satisfaction, Career Awareness, Employability, and Job Orientation. This suggests that academic orientation services might not be properly helping students to develop strong career awareness. This end-user observation has sparked the idea of creating tailored learning paths for students to meet their specific needs.

Students' interviews were also central to discovering four distinct profiles by quantitatively clustering the collected information. The BE(A)ST profile matrix is a tool devised to distinguish the four profiles across the axes of proactivity (high vs. low proactive career behaviors) and decidedness (high vs. low career decidedness). Chapter 4 details the tool for students (questionnaire) to identify their best-matching profile.

By prototyping the PCD course and collecting participants' comments, we gain insights on how to build and match different learning paths for various students' profiles. Effectively, the BE(A)ST framework offers a set of different tools that enable the customization of BE(A)ST pathways (see Chapters 3 and 4). For instance, students confused about the professional path they should follow (Profile B in the BE(A)ST profile matrix) will most certainly need to develop self-assessment skills in order to develop career awareness. On the other hand, a more 'determined' student (Profile C) may need to learn about different, more operational facts related to the field of his/her interest and how to establish adequate employability.

In conclusion, the PCD course (see Chapter 5) allows professors, career professionals, and educational institutions to connect with students and address their primary demands in terms of career orientation.

The expected results of personalized career paths

So far, the feedback from PCD course participants has been positive, confirming our hypothesis and expected outcomes. The vast majority of the students have reported an improvement in self-awareness levels during the course. The BE(A)ST research team will further validate the course with new cohorts. They have also planned a series of follow-up interviews one year after the course to evaluate its impact over the medium term. In general, it will be regularly tested and improved. The PCD course is therefore a valid investment for universities willing to orient their students in carefully and proactively planning their careers.

For universities

BE(A)ST proposes a flexible course format implementation.

1. A separate compulsory/elective subject that is included in the study program over a whole semester/year.
2. A short-term course (such as a summer school format) based on an intensive sequence of learning activities offered over a full week.
3. A self-contained e-learning unit which is freely available to students on the learning platform.
4. An introduction of selected parts to other subjects/courses.

Higher education institutions thus have a versatile and effective tool for customized career guidance to offer on a wider scale to a larger audience.

For students

By recognizing themselves as one of the profiles, students may be more motivated to demand career guidance. Moreover, being able to self-assess in terms of confusion vs. determination and proactivity vs. reflective behavior can raise the need for professional awareness. Depending on the profile and the customized path, some students may more easily identify their specific talents and/or opportunities in society. Others may be able to narrow down the many choices they have and take specific action when exploring professions. As self-exploration is a key element of career design, participating in the PCD course would offer students a unique opportunity to recognize the areas in which they lack guidance and learn to utilize tools that will aid them in designing their future careers. Finally, mastering these tools enables each individual, depending on their needs, motivation, and self-awareness, to adopt and adapt some of them to their specific context. For that reason, the implementation of the BE(A)ST approach in the existing curricula would lead to an impactful student experience, providing individualized guidance for each one both in the short and the long term.

For companies

Finally, we do believe that the BE(A)ST approach might also benefit the company-university interaction. Indeed, it encourages early planning and self-exploration of career opportunities, thus favoring and anticipating the contact between the university and the company. Companies might engage students at an earlier stage, targeting the profiles of students most relevant to the job opening. The current four-profile version could be expanded by preparing questionnaires allowing to estimate which particular type of a student is compatible with a particular type of company.

There are certain limitations to this study that are connected to the data corpus and data analysis methodologies. Among these are the limited number of interviews and the administration of questionnaires. The potential future paths of the current study, directly connected to the restrictions indicated above, consist in conducting a bigger number of interviews and better questionnaire administration, which would allow to gather and validate the students' profiles more accurately.

Despite its limitations, this study constitutes a significant innovative contribution to career advisory services. Although the profiles are not set in stone, the BE(A)ST approach identifies four different profiles. This is an important aspect to be considered in devising career guidance services.

Universities are encouraged to adopt the BE(A)ST methodology not only in the form of a stand-alone course but also in combination with other courses. This novel approach can be implemented outside of the academic setting, for example in the professional career path development of current workers and by HR departments of businesses to enhance the abilities of employees in accordance with specific occupational needs. While hard skills and subject-matter knowledge are emphasized in education systems, universal capabilities are generally overlooked. Universities are now grappling with how to include twenty-first-century skills into their curricula, since they are now more vital to students than ever before. This is a field of research that has not been considered as part of the studies described above. As society advances towards continuous learning, this approach may be implemented to foster making career adjustments and assist individuals in leading better lives.

The above limitations notwithstanding, the BE(A)ST research program has paved the way for future prospective extensions of the personalized framework for career development.

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Are you wondering how to ***make your students more aware*** and ***help them to design an educational pathway and start developing a career while they're still at university***? Here you go! The BE(A)ST approach is a fully flexible process that can be tailored to the needs of your institution and your students.

Working with the BE(A)ST methodology, you will guide your students through four stages:

- *self-reflection*, in which students discover their values, interests, and passions, and determine their level of skills development in selected areas;
- *defining professional identity*, in which students experiment with different variants of professional profiles they have defined;
- *exploring and defining possible career scenarios*, which allows students to identify different career path options;
- *prototyping and testing personal business models*, in which students analyze and test the developed prototypes of their career and education track.

Take your students on the *most important journey of their lives*, leading to professional and personal fulfillment! Try BE(A)ST and do your BE(A)ST!

"This book is a must-read for anyone who is serious about career planning, life design or teaching about these ideas. It includes an extremely well researched and authoritative review of all the major books, methods and tools available and advances the state-of-the-art with suggested improvements and refinements. It also packages these tools into several different university-level workshop and course formats and provides the authors' experiences with delivering these programs to students across different disciplines, cultures and countries."

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