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Irritations in the Career Choice Process and Transformative Learning

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Abstract

Context: Vocational education and training (VET) plays an important role in Switzerland and has a high standing. Students' access to initial vocational education and training (iVET) at the upper secondary school level is prepared at the lower secondary. Many initiatives support them, and school has a crucial role in that process. *digibe*, which stands for “digital support in the career choice process and the impact of a systematic, digitally based reflection on career orientation”, aims at strengthening reflective capabilities in career planning. Often, this is not given enough attention, as the focus of the support is on finding a follow-up solution. The development of career-oriented competencies, as they are asked for in research and the curriculum in career orientation at school, often is not considered so important. Reflection helps to better understand and, if necessary, also transform perspectives on one own's career planning.

Approach: *digibe* is a longitudinal intervention study running for four years (2021 – 2025). Participants are students from grades 9 to 11 in the German-speaking part of Switzerland. The intervention groups differ in the frequency students are asked to report irritating experiences during the career choice process and the frequency they are asked to work on tasks aiming to trigger reflection. The development is measured regularly by means of a questionnaire.

Findings: The baseline survey of *digibe* was carried out in September–October 2021, N = 2'848 (as of July 2022), and all school levels (tracks with basic vs extended requirements). Results show that N = 773, 27 % of the students reported irritating experiences and situations directly related to the vocational choice process. We find small, statistically significant mean differences in the readiness to reflect, but the effect sizes are very small. Only students in grade 11 who tell us that they have no irritating experiences are very low in their readiness to reflect. They do not need to reflect, as most of them will have their apprenticeship contract signed. The main findings are that students describe irritating experiences, they describe themselves as open to reflection, and that irritating experiences can trigger an in-depth reflection

Conclusion: The vocational choice process confronts students with irritating experiences which offer a possibility to reflect. Students tell us that they are generally willing to reflect on their career orientation process and integrate new information into their career planning. How this relates to the development of the career choice process must be shown in further analyses.



Keywords: career planning, career choice, initial vocational education and training, school

1 Focus of the Paper

In this paper, we outline the theoretical underpinning and the design of our intervention study *digibe* and present results about irritating situations during career planning as reported by students. *digibe* stands for “digital support in the career choice process and the impact of a systematic, digitally based reflection on career orientation”. *digibe* aims at allowing students to take a self-determined and self-reflected career decisions.

This paper reports on results of the project *digibe*. We give some background information on how vocational orientation is realised at the lower secondary level to show the problem we address with *digibe*. We then make the point that irritating events during vocational orientation can be a point of departure to develop further career planning, including the transformations of previously unreflected positions. We then describe naturally occurring and ask whether these events can trigger reflection.

1.1 *digibe*¹

digibe is an intervention study running for four years (2021 – 2025). Participants are students from grades 9 to 11 at lower secondary schools. We recruited classes in several cantons of the German-speaking part of Switzerland. A single intervention consists of reflecting on the career choice with the support of the *digibe* tool and, some days later, filling in a short questionnaire to keep up with the changes in the vocational choice process. The classes were assigned to different intervention groups: *plus i* with three interventions per semester, *plus s* with two interventions, *flexible* with the number of interventions chosen by the teacher, and *base* where only the questionnaire is filled in.

2 Vocational Orientation at the Lower Secondary Level

In Switzerland, significant career decisions are taken at the lower secondary level, as the students must decide to either follow a vocational track or school track at the upper secondary level.² The share of students in iVET on the upper secondary level is 59 % (FSO, 2022). It is traditionally higher in German-speaking Switzerland than in French- or Italian-speaking Switzerland and higher outside the large urban centres. Vocational orientation at lower secondary school is an important issue, which is proven by many initiatives from cantonal education offices, vocational career guidance, and companies as well as the Universities of Teacher Education (Nägele & Schneitter, 2016).

Within these activities, school plays an important role. In the national curricula for compulsory school (F-CH: CIIP, 2010; D-CH: D-EDK, 2016; I-CH: Divisione della scuola, 2016), vocational orientation at school is first described as an independent subject with an allocation of hours. Second, it is a transversal subject linked to other subjects, like language.

According to the curricula, schools initiate the vocational choice process, aiming at supporting their students in developing career-related competencies, for example, the competence to describe and develop the personality, to take complex decisions or the competence to find and integrate information on career opportunities.

In the Swiss collective skills formation system (Busemeyer & Trampusch, 2012), with its competitive and selective apprenticeship market and an education system that opens up for higher and further education for everybody (Stalder & Lüthi, 2020), young people should think about their career prospects as early as possible.

¹ www.digibe.ch

² https://www.edk.ch/en/education-system/diagram?set_language=en

To our knowledge, only little is systematically known about how teachers in Switzerland design their lessons in vocational orientation and how they define their role and mission in vocational orientation. For example, let's take the curricula as a point of reference. Teachers are expected to support their students develop career-related competencies and to shift from instructing to coaching in interacting with their students. Switching between the two “modes of operation” is often difficult, as the tasks differ significantly. Teachers are experts in their subject area; they know the goals and are familiar with didactical concepts in teaching a specific subject. The teacher as a coach needs to shift his/her mindset. There is, for example, no right or wrong in career planning as it is in Maths or Grammar. By contrast, the goals of career orientation are not defined by a curriculum and a teacher, as the students themselves need to develop the goals of their career planning, and the parents are much more involved to point to some differences. The Erasmus+ project VETteach has clearly shown that this effort to switch from instructing to coaching should not be underestimated (Nägele & Stalder, 2022).

We know from interviews conducted by student teachers with teachers and workplace trainers that the requirements formulated in the curricula are often hard to meet in practice. Teachers are expected to support their students individually in the development of their careers. This individualisation is often challenging to implement due to a lack of resources. Teachers also report that they are heavily under pressure to find an educational solution for every student, at the latest when students leave school at the end of lower secondary. This pressure is set up by school authorities, cantons, or parents. This pressure has a rational cause. There is a large consensus that every student should find a direct continuation of his/her education and training at the upper secondary level (EDK et al., 2015). This favours a process of searching for the right profession based on the student's grades and characteristics. The rationale is that young people without a certifying diploma in the upper secondary have almost no chance to survive in the labour market and that the risk increases if they drop out of education and training in transition from lower to upper secondary (Stalder & Schmid, 2016). The backlash is that there is much pressure imposed on students and teachers to continue with education and training after compulsory school or with a maximum delay of one year (interim solutions). These initiatives contribute to 77 % of the students making a direct transition from lower to upper secondary education, which increases within three years to 96 %.³

Such matching-attempts are broadly rooted in the tradition established by Holland and his RIASEC-model (1997). This model assumes that vocational interests emerge early, are stable and are realised in a fitting job. The RIASEC model was already criticised by Super (1994), in particular, because it neglects development issues. Savickas et al. (2009) later posit career planning and development as a lifelong design process. Following this approach, *digibe* sees career planning as a lifelong process where interests can develop and change, for example, through learning experiences (Lent & Brown, 2019).

Based on interviews with teachers, we know that many of them make first a triage. For example, they identify students heading towards general education on the upper secondary level as early as possible. These students are then exempted from classes in vocational orientation. This is, first, in contradiction to the demands formulated in the curriculum, which asks all students to develop career competencies. Second, vocational orientation then often becomes a matching game as described above: results of interest tests, lower secondary school types (i.e. more or less demanding tracks), and school grades are taken together to find the best fitting solution for the student. In doing this, the school starts taking on the responsibility for the student's decision, which is not at all a goal formulated in the curriculum.

³ <https://www.bfs.admin.ch/bfs/de/home/statistiken/bildung-wissenschaft/bildungsindikatoren/themen/uebergange/uebergang-sekii.html>

So, we see two contradictory positions. On the one hand, the primary goal is the development of career competencies through reflection and work experiences, leaving the decisions on how to proceed with the career to the students and their parents. On the other hand, there are strong initiatives to guide students in finding the best fitting apprenticeship as an outcome of vocational orientation at school.

Some projects try to induce reflection to develop competencies supporting self-directed career management (Hirschi & Koen, 2021), or there are teaching materials focussing on reflection (Schmid, 2015). However, given a lack of resources and time constraints, for many teachers, the “matching approach” might be more attractive, and in consequence, the use of teaching material and instruments which are based on the principles of testing the personality, taking the grades into account, and matching both with job profiles.

Thus, we are in a situation where we have an established practice where the schools have – to put it in a nutshell – the role of matchmakers. Developing career-related competencies and the ability to reflect to evaluate, question and strengthen career planning has often a hard stand in practice. And here is where *digibe* steps in.

3 Irritating Experiences, Reflection and Transformations

Reflection is essential, as career orientation confronts young people with the challenge of designing multiple options for action, identifying numerous and often fast-moving changes in the world of work whilst productively shaping the future. It helps one become self-conscious about thoughts, emotions, and actions (Silvia, 2021). Reflection can start if the student is ready to engage in and deal intensively with the career choice process. The readiness to reflect depends on situational (for example, time) and individual factors (for example, open-mindedness, wholeheartedness, and responsibility, according to Dewey, 1933). An initial irritation or disorientation can lead to a struggle for clarity (Bromberg, 2017).

Ideally, these reflections result in new insights. This happens when students transform their perspectives (Mezirow, 2009). Transformations comprise the consolidation of insights or the emergence of new insights. Transformative learning refers to the qualitative change of an individual's perspective, which allows an individual to think and act differently, transforming their perspectives on their career in general and on a VET career in particular.

3.1 Inducing Reflection

In *digibe*, we invite students to engage in a broader and profound reflection through reflection-related and thought-provoking impulses. These impulses can either occur naturally, such as during work experience days (Schnupperlehre), in discussions with their peers or parents or in any other event related to the career choice process. Students are regularly asked to describe events that made them reflect or talk to others. Additionally, they are confronted with tasks covering essential aspects of career orientation (family, culture, gender, peers, available options, life-long perspectives, decisions etc.). These tasks are meant to stimulate reflection about the career choice process in the absence of or parallel to events that occur in young people's lives. Ideally, reflection results in learning and the transformation of perspectives.

There is no expectation that *all* students will start reflecting, and it might be that some students will resist reflecting, even after irritating experiences. It is part of the project to show whether, in which situations and to what extent students reflect.

As a precondition, there must be an openness and readiness to reflect. The theory of transformative learning describes this process in ten steps of a systematic reflection (Mezirow, 2009). Reflection starts with thinking about the situation and the own behaviour in it. Reflection then opens to include a perspective on how others would handle that situation. Next, options are elaborated on how to react to the situation differently. For example, a student could conclude that he/she was too shy in presenting him-/herself in a job interview and that he/she wants to

change that. Then the focus of reflection shifts to comparing the reaction one showed and the reaction one would have liked to show. The student concludes then, for example, that it was totally normal that he/she was shy, as all his/her colleagues had the same experience. The reflection could stop here or deepen by asking how to become less shy in future job interviews. Further, options are developed, mentally tested, and discussed with others to form ideas on how to react differently in similar situations in the future. The student has then learned to be less shy in future job interviews.

3.2 Irritating Experiences and Situations

Based on the theory of transformative learning (Mezirow, 2009), reflecting on irritating experiences and situations can be a chance to question and develop opinions or perspectives on how the world is seen. This can impact career choice processes. In transformative learning theory, it is typically an adult that is meant to start reflecting on his/her perspective and eventually changes his/her career. The experiences that young people can reflect on in the vocational choice process come from their school environment, families, or work experience days.

Reflection is only triggered if there is a positive or negative irritation. But do the young people experience situations in their career planning that irritate them and become a nucleus for reflection and transformations? We think that their experiences from school, work experience days, or the family can be a starting point of reflection. The family, for example, has a significant effect on a student's career decision (Billett et al., 2022). Parents have a say in their children's career choices through their parental authority and must legally sign the apprenticeship contract or school application forms. They also shape their children's careers through implicit or explicit norms and expectations. *digibe* aims to make the influence of the family visible and bring it to a conscious discussion. Herby, students are expected to develop their position, which can align with the family's position but also deviate from it.

4 Results

4.1 The Occurrence of Irritating Situations

The baseline survey of *digibe* was carried out in September–October 2021, $N = 2'848$ (as of July 2022), grades 9 to 11, and all school levels (tracks with basic vs extended requirements).

We asked the students whether they had an irritating experience in their vocational choice process. These were experiences that they thought about afterwards or talked about with other people. First results show that $N = 773$, 27 % of the students reported irritating experiences and situations directly related to the vocational choice process. Many also reported irritating experiences unrelated to the vocational choice process. Such experiences were not considered in this analysis.

First, we coded the situation that triggered reflection. The students reported (a) irritating experiences without naming a specific situation ($N = 504$) and irritations due to specific situations such as (b) work experience days ($N = 151$), (c) discussions with other people ($N = 61$), (d) applications for an apprenticeship or school ($N = 58$), and (e) information events or tests ($N = 28$).

(a) Irritating experiences can lead to reflections that i) change the perception of a specific job, ii) an evaluation of the own performance skills, iii) changes in vocational interests, or iv) questioning a decision.

i) *Changes in the perception of specific jobs.* Exemplary statements were: “I have another picture of the job” (MUD0Y) or “I have learnt that there is no apprenticeship to become a schoolteacher” (HNMIV). Some students develop a more differentiated but negative perception of the job. Examples are: “I am shocked that you earn very little in certain occupations” (HTUCB) or “That you have to work very long hours and that you have to do

everything you are told to do" (AANYK). Or the students got new information about a job and extended their initial picture. Examples are: "I am amazed at how many new occupations there are" (FMYAH) or "That there are so many different possibilities" (JLQOQ).

(ii) An *evaluation of the own performance skills* is shown in comments like "I forgot what I wanted to say when I had to speak in front of people" (VBOQR) or "I have said things I did not mean" (PZQIG).

iii) *Changes in vocational interests* can lead to new career orientation, "I suddenly had a new career aspiration" (YBJDC) or even confusion, "When I no longer knew what I wanted" (RLGDN).

iv) Some students question their decisions. They become insecure, "That I was suddenly unsure about my career planning" (CVXFN) or blocked, "Not being able to make a decision" (NIUPW).

(b) A work experience period can lead to manifold reflections. Examples of statements are: "During my work experience days, no one paid any attention to me (QTHMX), "I expected something different from an occupation, but it was completely different from what I had imagined" (DDDWN), "Boring, tedious" (EWJCU). Most reports are negative, but there are also positive reports on the work experience days. Examples of positive experiences are: "It was cool" (NMAZW) or "People were much more relaxed than expected (SKFWD).

(c) It can irritate students if they receive too much or contradictory information on occupations. Examples are: "When I was at the career fair and saw so many occupations, but almost none of them appealed to me" (KKDZA) or "I got to know occupations that might suit me that I didn't even know about" (RHNBX).

(d) Discussion with other people on the vocational choice process can be irritating. Examples of statements are: "Everyone asks me what I want to be and that irritates me. Because I'm not sure yet what I want to be. And that makes me anxious" (YTZLR) or "My parents wanted me to become a medical doctor, but I don't like the profession of doctor at all" (JUOWJ) or "My father told me I needed more than two ideas of what I wanted to do" (NYIOT).

(e) If it comes to applications for jobs or schools, the irritating events are, for example: "I got many rejections" (ILTMB) or "I have called many companies, but no one has answered" (VIWAR) or "Cancellation after the work experience despite good feedback" (QCNOK).

These quotes show that some students have puzzling and irritating experiences during the vocational choice process. The results also show that students report mainly negative experiences but also some positive experiences. The results present a snapshot at the beginning of the school year in grades 9, 10 or 11.

4.2 Reflection Triggered by Irritating Events

We asked students whether they were generally ready to reflect critically on aspects of their vocational choice process. The scale is built with three items, for example, "I am ready to accept new ideas, even if I reject them at first", measured on a scale from 1 "not at all" to 5 "completely", $N = 2'835$, $M = 3.71$, $SD = .71$, Cronbach's Alpha = .725.

We find that those students that reported irritating situations, $M = 3.78$, $SD = .70$, are more ready to reflect critically than the other students, $M = 3.68$, $SD = .71$, the mean difference is statistically significant, $t(2833) = -.304$, $p < .01$, but the effect size is small, Cohen's $d = .13$. We also tested for gender differences in the readiness to reflect, and found no significant mean difference, $t(2825) = 2.49$, $p = .19$. The readiness to reflect increases from grade 9 to grade 11 for all students but is lower for those in grade 9 that did not experience irritating situations. Again, the effect size is relatively small. Only in grade 11, students reporting on irritating experiences are more ready to reflect, $M = 3.49$, $SD = .82$, than the other students, $M = 3.89$, $SD = .76$, $t(190) = -2.990$, $p < .01$, Cohen's $d = -.49$, which is still a small to medium effect. This

data shows that the students in grades 9 to 11 see themselves as relatively open to critically reflecting on career-related experiences and accepting new ideas. As mentioned, this is data from the beginning of the study, collected at the beginning of the school year. Further analyses will show how students' readiness to reflect develops longitudinally and whether this general openness towards new ideas corresponds to what and how the young people plan their careers.

According to the theory of transformative learning, reflection has different foci or steps (Mezirow, 2009). We asked those students who reported on irritating experiences whether this triggered an in-depth reflection. In $N = 1'012$, 73 % of the students, the irritating experience triggered an in-depth reflection about themselves and initiated the development of new strategies and implementation. $N = 113$, 8 %, students stopped after reflecting on themselves. The others, $N = 86$, 19 % showed different patterns as, for example, thinking about implementing new strategies without prior reflection on themselves or developing new strategies. We see that irritating events during the vocational choice process can trigger an in-depth reflection about the experience, how others act in similar situations and look for new strategies and the formation of an intention to change oneself.

5 Discussion

The vocational choice process confronts students with irritating experiences which offer a possibility to reflect. Work experience days (Schnupperlehre), the discussion with other people, for example, the parents, and experiences with job applications positively or negatively challenge career planning. Students are generally willing to reflect on their career orientation process and integrate new information into their career planning. Many students with irritating experiences take them as a chance for an in-depth reflection. In this paper, we described irritating experiences and situations of students and showed that they can trigger reflection. Whether this leads to transformative learning by either change in the career planning or better-founded reasoning on their career planning is subject to further analysis.

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