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# RISK PATTERNS AND BOUNDED AGENCY IN VOCATIONAL ORIENTATION

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## Abstract

*In this paper, we illuminate the vocational orientation process experienced by different groups of young people. In this context, risk factors, support, and the theory of bounded agency were considered in particular. The study answers the following questions: What patterns of risk can be identified within the vocational orientation process? How do identified risk patterns differ in relation to the perceived support provided by various support services? How do representatives of different risk patterns describe their vocational orientation process and how apparent are aspects of (bounded) agency? We carried out a mixed-methods study in Switzerland comprising a quantitative and a qualitative part. Latent class analysis revealed the existence of three distinct risk patterns that according to analysis of variance differ significantly concerning the perceived support of parents, siblings, friends, relatives, and teachers. Using content analysis, interviews revealed aspects of agency and aspects of boundaries concerning vocational orientation that differ in relation to the distinct risk patterns.*

## Keywords

*vocational orientation, bounded agency, vocational education and training, risk patterns, mixed-methods approach*

## The importance of vocational orientation

Being accepted as an integrated member of an achievement-oriented society is strongly based on integration into the labour market. A key requirement for integration into the labour market is a successful transition from compulsory school to post-compulsory education and training (Blossfeld, Hofacker, & Bertolini, 2011; Kogan, Noelke, & Gebel, 2011). This is especially true for Switzerland, which has a well-established vocational education and training system that is chosen by the majority of young people. Moreover, the Swiss Conference of Cantonal Ministers of Education announced the objective to reach a 95% graduation rate for upper secondary education (EDK, 2015). A large percentage of young people gain direct access to vocational education and training after compulsory school. As a result of this well-known and successful structure, young people experience great pressure to be successful during the transition process. For young adults, the transition from compulsory school to vocational education and training can therefore be seen as an exciting and crucial turning point in their professional careers and social positions. As the transition takes place quite early in Switzerland, the transition process and the vocational orientation process can be challenging (Stolz & Gonon, 2013). About 25% of young people in Switzerland face challenges and failures while trying to manage the transition from school to further education and training (Berweger, Krattenmacher, Salzmann, & Schönenberger, 2013; Kriesi et al., 2016). Young people who fail to enter vocational education and training directly are often challenged regarding their vocational orientation. In this context, several studies have reported correlations between difficulties concerning the transition and several individual, family-based, school-related, and workplace-related risk factors (Häfeli & Schellenberg, 2009; Scharenberg, Hupka-Brunner, Meyer, & Bergmann, 2016).

Vocational orientation can be understood as an increasingly early starting, de-standardized, and long-lasting process running simultaneously with other developmental tasks (Walther, 2009). In this paper, we focus on the transition from compulsory school to vocational education and training as an important phase in vocational orientation. To assist young people in the process of vocational orientation, several support services are available. Transitional options such as bridge-year courses are corresponding options.

Around 20–25% of young people in Switzerland attend a transitional option (mostly one- or two bridge-year courses) after compulsory school (Bundesamt für Statistik (BFS), 2016; Meyer, 2018; Sacchi & Meyer, 2016). Research shows that occupational success is less likely for individuals with prolonged transitions from compulsory school into vocational education and training (Kriesi, Buchmann, & Jaberg, 2012). The process of vocational orientation for these young people should therefore be of particular interest.

As has been previously shown by Neuenschwander, Gerber, Frank, and Rottermann (2012), educational decisions within the process of vocational orientation can be made by coincidence, be self-directed, or be influenced by social resources and contextual boundaries. Accordingly, we based our theoretical framework on a corresponding process model of vocational orientation and the theory of bounded agency.

After presenting this process model of vocational orientation and the main assumptions concerning the theory of bounded agency in the next section, the research questions will be described in more detail as will the methods used to answer these research questions. The results will subsequently be reported before being summarized and discussed in the concluding section.

## Theoretical framework

### *A process model of vocational orientation*

Theoretical and empirical studies on vocational orientation and the related transitional process in Switzerland indicate that developmental processes should be considered within a context-bound framework (Gebhardt, Schönenberger, Brühwiler, & Salzmann, 2015; Hupka-Brunner, Samuel, & Bergmann, 2016; Neuenschwander, 2017). This means that young adults interact with their surrounding environment during their vocational orientation process. The theory model of vocational orientation used in this paper (see Figure 1) is based on the process model of vocational orientation proposed by Gebhardt et al. (2015) and the model for transition management proposed by Neuenschwander (2017). As Figure 1 shows, the focus of the vocational

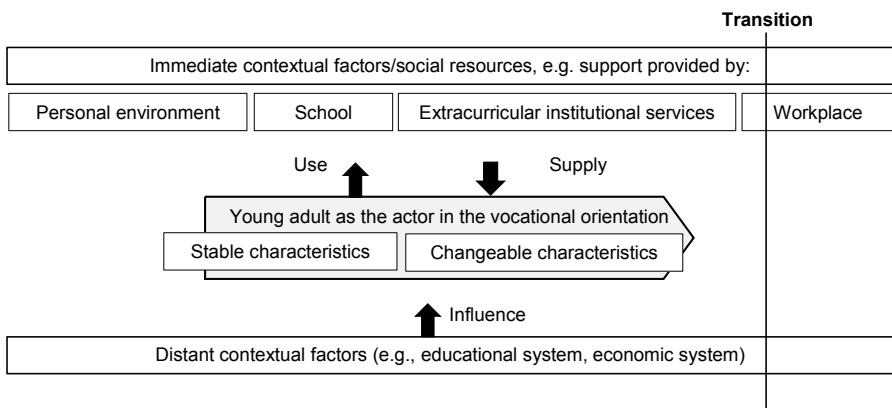


Figure 1. Process model of vocational orientation based on Gebhardt et al. (2015) and Neuenschwander (2017).

orientation process is the young individual, with stable (e.g., gender, socio-economic status, and migrant background) and changeable (e.g., academic achievement, intentions, and aspirations) personal characteristics that influence the process. Social resources provided by the immediate context as well as framing conditions given by distant contextual factors may also influence the person and therefore the vocational orientation process.

The link with an individual's social resources is to be understood as a supply–use relationship between the provider of the respective support service and the young adult's ability to seek help. Accordingly, as highlighted by Neuenschwander (2017), various groups of actors and services determine the vocational orientation process. These social resources include the actors and services in the personal environment, the school context, and—in the later stages of vocational orientation—the workplace context, in vocational education, and training. As noted by Gebhardt et al. (2015), these social resources can, depending on their presence and their own characteristics, promote or inhibit the (success of the) vocational orientation process. In addition to the contexts mentioned by Neuenschwander (2017), extracurricular institutional resources are also included. Among other aspects, these comprise transitional options such as bridge-year courses. Vocational orientation is further embedded in a larger context, which is, for example, characterized by the structures of the national education system and the national or regional labour-market conditions. They provide framing conditions for the vocational orientation process, considering aspects such as the current training and labour-market situation, social values, and the infrastructure in the place of residence (Gebhardt et al., 2015).

As stated in the section “The importance of vocational orientation”, previous research has revealed that managing the transition from compulsory school to vocational education and training successfully is further related to *risk factors*. The term refers to individual and environmental characteristics that are associated with difficulties in the transition from compulsory school to vocational education and training (Gebhardt, Kamm, Brühwiler, Dernbach-Stolz, & Gonon, 2017). In that sense, risk factors comprise individual (e.g., gender, migrant background, academic achievement), family-based (e.g., socio-economic background, parental educational aspirations, relationship with parents), school-related (e.g., support provided by teachers, the school, and special career education lessons), and workplace-related (e.g., experience of autonomy, competence, and social integration) aspects (Häfeli & Schellenberg, 2009; Scharenberg et al., 2016).

As stated initially, the young person is perceived as active in his or her process of vocational orientation even though he or she is embedded in his or her context. Consequently, a closer examination of the aspect of agency and bounded agency will be included in the following section.

*Bounded agency*

While various factors influencing the process of vocational orientation were reflected in the previous section, the role of the individual as an actor in this process should be highlighted. The concept of agency offers an appropriate framework for this reflection. It was initially proposed by Rudd and Evans (1998), who defined agency as follows: “Agency here refers to those aspects of the decision-making process in school-to-work transitions which were predominantly individual, creative, proactive and involved resisting external pressures” (p. 51). As can be seen from this quotation, in contrast to macro-sociological theories, the individual decision is placed at the centre. The authors argued that the degree of choice or agency in vocational orientation should not be underestimated. A similar understanding of agency is seen in the work of Billet (e.g., 2006), who reflected upon the interdependent relationship between individuals and their social embedding in vocational education and training. In a continuation of the work of Rudd and Evans (1998), Billet (2006) argued for an inclusive view of structure and agency wherein the decisions of individuals are understood as an outcome of their previous social experiences. This perspective already tends to reflect the revised concept which Evans (2002, 2017) developed from the initial model. This further development refers to the interrelationship between structure and agency. The author defined this as follows:

In explaining the individual attributions of success and failure within socially structured environments and the almost universal recognition of the importance of “qualifications”, we have looked through the lens of agency as a socially situated process, shaped by the experiences of the past, the chances present in the current moment and the perceptions of possible futures, to find the concept of *bounded agency*. (Evans, 2002, p. 262, emphasis in the original)

The decision-making process of young adults as proactive individuals is framed as relational—with respect to structural and social characteristics, and temporal—embedded in situational and life-course conditions (Evans, 2017). The outlined concept is suitable for our study as it illuminates the decision-making process of individuals within their vocational orientation, while the scope of the decision is co-structured by the social (immediate and distant) context. Vocational decisions are therefore understood as a product of past experiences and subjective perceptions of possible futures. This theoretical perspective is particularly important in the context of prolonged transitions into initial vocational education and training. Transitional systems have, among other aspects, the task of integrating young people into the labour market, which limits the scope for individual decision-making.

In summary, we understand the vocational orientation process as a supply–use relationship in which young adults are on the one hand active agents in this process and on the other hand rely on their social resources and other

contextual factors. It remains unclear how agency and contextual boundaries—conceptualized as risk factors and support services—are related to one another and experienced by different groups of young adults. In the following section, we propose corresponding research questions based on the explained theoretical framework and discuss how we intend to approach them methodologically.

### Research questions and methods

Referring to the concepts outlined in the last section, this study intends to gain further insight into the vocational orientation process experienced by different groups of young people. In this context, we address and reflect in particular on the aspects of (bounded) agency concerning (prolonged) transitions from compulsory school into vocational education and training. In more detail, the study seeks to answer the following research questions (RQs):

- (1) What patterns of risk can be identified and characterized within the vocational orientation process?
- (2) How do identified and characterized risk patterns differ in relation to the perceived support provided by various support services?
- (3) How do representatives of different risk patterns describe their individual vocational orientation processes and how apparent are aspects of (bounded) agency within this context?

To answer these research questions and acquire a better understanding of the complex transitional process from compulsory school to vocational education and training, we conducted a mixed-methods study that was carried out in the German-speaking part of Switzerland.<sup>1</sup>

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<sup>1</sup> We utilized data from a mixed-methods project called “Gelingende Übergänge für Risikogruppen in die Berufsbildung” (GÜRB) (“Successful transitions into vocational education and training for different groups at risk”), a cooperative research project carried out by the St. Gallen University of Teacher Education (Prof. Dr. Christian Brühwiler, Dr. Anja Gebhardt) and the University of Zurich (Prof. Dr. Philipp Gonon, Chantal Kamm, Stefanie Dernbach-Stolz), funded by Stiftung Mercator Schweiz and the Department of Education of the Canton of Zurich.

By conducting a mixed-methods study, we were able to quantitatively analyse the transitional process and the perception of associated support services for a large number of cases (RQs 1 and 2). At the same time, it allowed us to gain a deeper understanding concerning the aspects of agency and boundaries by qualitatively illuminating information-rich cases (RQ 3). The mixed-methods approach follows an explanatory sequential design as the qualitative sampling procedure was based on results compiled within the quantitative part of the study (Creswell, 2014). In order to follow the outlined sequential logic, the quantitative and qualitative data collection and the samples are elucidated in the following sections.

*Quantitative part of the study: Data collection and sample*

Quantitative data were gathered using a standardized questionnaire in the spring of 2016. In order to measure risk in relation to the successful accomplishment of the transitional process, various individual, family-based, school-related, and workplace-related risk factors were investigated. Academic achievement, migrant background, and gender are relevant individual risk factors. Family-based risk factors were analysed using the Programme for International Student Assessment index of economic, social and cultural status (ESCS; Organisation for Economic Co-operation and Development [OECD], 2016). Furthermore, two different scales were constructed to measure the quality of relationships with parents and the extent of parental educational aspirations (as pressure). Preparation for the transition to vocational education and training provided by teachers, the compulsory school, and special career education lessons are important aspects of school-related risk factors. Three scales were constructed to estimate the degree of perceived autonomy, competence, and social integration experienced at work for those participants already pursuing vocational education and training. The psychometric properties of all outlined scales were verified with the aid of reliability tests ( $.704 \leq \alpha \leq .900$ ) (Punch, 2014) (see Table 1). List-wise deletion was used to handle missing data. Among other aspects concerning the support available for young people during their vocational orientation and transitional process, the questionnaire contained an item regarding the perceived usefulness of several support services (see the list of support services in Table 4). Participants were asked to rate the perceived usefulness on a four-point Likert scale from 1 (*not useful at all*) to 4 (*very useful*).



Table 1  
*Scales and their empirical quality criteria*

Scale	<i>n</i>	Number of items	Cronbach's $\alpha$	Corrected item-total correlation (min./max.)
Workplace-related risk factors				
Perceived autonomy at work	358	4	.766	.515 / .627
Perceived competence at work	353	5	.799	.446 / .648
Perceived social integration at work	355	5	.847	.452 / .761
School-related risk factors				
Preparation for transition into vocational education and training provided by special career education lessons	376	4	.900	.722 / .819
Preparation for transition into vocational education and training provided by teachers	376	4	.866	.665 / .754
Preparation for transition into vocational education and training by compulsory schools	384	3	.704	.458 / .589

The quantitative sample included 406 young adults from the German-speaking part of Switzerland who were in their last year of compulsory school between 2009 and 2012. Part of the sample—302 participants—attended a bridge-year course (a specific transitional option) starting in 2010, 2011, or 2012. These young adults had already experienced a prolonged transition into vocational education and training. Since the questionnaire was deployed in 2016, all of the participants had been confronted with the transitional process in the past. At the time of quantitative data collection, the majority of participating young adults (46.1%) were attending vocational education and training, while 26.1% were already in an employment relationship after completing vocational education and training. Another 10% attended school at the upper secondary level, 4.7% were in tertiary education, and 2.8% remained in or were again attending a transitional option. There were also young adults who were unemployed (4.9%) and others who had decided to pursue an alternative occupational option (e.g., being a freelancer or a babysitter) (5.4%). The participants were on average 20.55 years old ( $SD = 1.08$ ), with a large part of the sample (43%) aged 20. In relation to allocation by gender, approximately two thirds (66.9%) of the participating young adults were female and approximately one third (33.1%) were male.<sup>2</sup> After completing primary school,

<sup>2</sup> Information on gender is not available for 52 young adults.

students in Switzerland attend lower secondary school, starting in seventh grade. Students are typically assigned to one of three lower secondary school tracks: the most academically demanding track, an intermediate track, or the lowest track. In terms of school track, 56.4% of participants were in the intermediate track, 40.4% the lowest track, and 3.2% the most demanding track.<sup>3</sup>

*Qualitative part of the study: Data collection and sample*

The sampling process for the collection of qualitative data was based on identified distinct risk patterns that were determined with the aid of latent class analysis. The sampling strategy followed an intensity sampling procedure (Patton, 1990), taking cases which were particularly rich for in-depth analysis. Consequently, we focused on representatives of all three risk patterns. With this focus, 12 representatives of the distinct risk patterns were interviewed using a problem-centred approach (Witzel & Reiter, 2012). The interview guide was structured into five thematic areas, each starting with an open-ended question. After a warm-up with a question on the interviewee's current occupational situation, we focused on vocational orientation, support services (with a special focus on bridge-year courses), optimizing segments, and future career choices. We conducted interviews with 9 female and 3 male young adults between 20 and 23 years old (the interviews took place 1 year after the quantitative questionnaire, i.e., in spring 2017). Since we intended to focus on young adults with prolonged transitions into vocational education and training, we chose 12 individuals who had attended a bridge-year course. At the time of the interviews, four participants were already in an employment relationship after completing vocational education and training, while six participants were still in vocational education and training. Two interviewees had undertaken another transitional option.

Data were fully transcribed and analysed with MAXQDA data analysis software, following the systematic steps of qualitative content analysis (Krippendorff, 2013; Mayring, 2015).

## Results

*Identification of distinct risk patterns*

The identification of different risk patterns—as intended with respect to RQ 1—was tackled by applying latent class analysis (Collins & Lanza, 2010; Geiser, 2011; Muthén & Muthén, 2012). Various individual (gender, migrant background, academic achievement), family-based (ESCS, parental educational

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<sup>3</sup> Information on school track is not available for five young adults.

aspirations, relationship with parents), school-related (preparation provided by the compulsory school, special career education lessons, and teachers), and workplace-related (perception of autonomy, competence, and social integration) risk factors were included within the latent class analysis. With the aim of losing as little information as possible and avoiding sample reduction, full information maximum likelihood, the “most common procedure in the social sciences” (Lüdtke, Robitzsch, Trautwein, & Köller, 2007, p. 112; see also Graham, 2009; Schafer & Graham, 2002), was used to deal with the missing values. Table 2 presents the fit indices of various class solutions tested. “The primary decision ... is how many latent classes to specify” (Collins & Lanza, 2010, p. 81). We used four empirical criteria of relative model fit to identify the number of latent classes. In this context, the bootstrap likelihood ratio test (BLRT) was applied. In the BLRT, significance means that a model with a certain number of classes fits the data significantly better than the corresponding model with one fewer class. The Akaike information criterion (AIC), the Bayesian information criterion (BIC), and the sample-adjusted BIC (aBIC) were also used to compare competing models in terms of the balance between fit and parsimony. A decrease in these indices indicates an improvement in the relative model fit when an additional class is added (Collins & Lanza, 2010; Geiser, 2011; Lubke & Muthén, 2005).

Table 2

*Fit indices for different class solutions of the latent class analysis*

Model	AIC	BIC	aBIC	BLRT
2	6,200.417	6,312.525	6,223.678	-3,138.593***
3	6,132.121	6,288.272	6,164.520	-3,072.208***
4	6,085.754	6,285.948	6,127.292	-3,027.060***
5	6,052.372	6,296.609	6,103.048	-2,992.877***

Note: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

The BLRT showed significance for all tested class solutions and therefore provides clear support for the solutions with four or five latent classes. With one exception, the more classes in the tested model, the smaller the values were for the AIC, BIC, and aBIC. Consequently, the AIC, BIC, and aBIC also favoured the four-class solution or the five-class solution. Since content-related thoughts should also be taken into account when deciding on the number of latent classes (Collins & Lanza, 2010; Geiser, 2011; Lubke & Muthén, 2005), the distinct risk patterns of the different class solutions were inspected. Such supplementary content-related considerations ultimately led to the decision to favour the three-class model. This seemed more appropriate,

since the four-class solution and the five-class solution do not produce any profiles that can be delimited or are new in terms of content, but merely divide the profiles already present in the three-class solution into different levels. In addition, the five-class solution generates individual profiles for very few participants. This, together with the recommendation to choose a model with as few classes as possible (Geiser, 2011), also supports the choice of the three-class solution. Concerning the three identified risk patterns, i.e., risk groups, empirical data can be found in Table 3.

Table 3

*Descriptive statistics of risk patterns*

Risk group ( <i>n</i> ; % of sample)		Initial position			
		Academic achievement <sup>a</sup> <i>M</i>	Gender % male	Migrant background % native	ESCS <sup>b</sup> <i>M</i> (z-standardized)
1	Good initial position, many social resources ( <i>n</i> = 267; 66%)	513	32	86	.32
2	Moderate initial position, few social resources ( <i>n</i> = 51; 13%)	465	23	44	-.21
3	Bad initial position, many social resources ( <i>n</i> = 87; 21%)	403	41	0	-.85
Risk group ( <i>n</i> ; % of sample)		Social resources			
		Educational pressure from parents <sup>c</sup> <i>M</i>	Relationship with parents <sup>d</sup> <i>M</i>	School-related factors <sup>e</sup> <i>M</i>	Workplace-related factors <sup>f</sup> <i>M</i>
1	Good initial position, many social resources ( <i>n</i> = 267; 66%)	2.49	3.52	2.58	3.16
2	Moderate initial position, few social resources ( <i>n</i> = 51; 13%)	3.29	2.24	2.30	2.82
3	Bad initial position, many social resources ( <i>n</i> = 87; 21%)	2.92	3.58	2.69	3.14

Note: <sup>a</sup> Based on the test results of a standardized test called ‘Stellwerk’ with a range of 200–800 points, the test aims to define personal achievement in compulsory school. <sup>b</sup> Value is z-standardized. <sup>c</sup> Educational pressure from parents includes four items based on means on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). <sup>d</sup> Relationship with parents includes 7 items based on means on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). <sup>e</sup> School-related factors include 11 items (see Table 1) based on means on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). <sup>f</sup> Workplace-related factors include 14 items (see Table 1) based on means on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

The first pattern (66% of participating young adults) is characterized by a “good initial position” and the availability of “many social resources” because these participants showed high academic achievement, came from a prosperous socio-economic background, seldom had a migrant background, and reported well-perceived preparation for the transition into vocational education and training provided by school and supportive parents. Young adults in this group faced very little risk concerning the transition into vocational education and training.

The risk level of the second group (13% of participating young adults) can be designated as “moderate initial position, few social resources.” In comparison with the other two groups, the academic achievement, percentage of people with a migrant background, and socio-economic background of this group were moderate, while the perceived parental pressure was relatively high and relationships with parents were rated quite low. Moreover, preparation for the transition into vocational education and training provided by the school and the workplace were also valued at quite a low level. For young adults in this group, risk regarding the transition into vocational education and training was induced through limited social resources.

The third group (21% of participating young adults) can be described as having a “bad initial position, many social resources” because the academic achievement and socio-economic background of the group are considerably lower than in the other two groups, whereas the percentage of people with a migrant background was comparatively high. Support for the transition into vocational education and training provided by parents, school, and occupational players was assessed as relatively high. For young adults in this group, risk regarding the transition into vocational education and training was induced through a disadvantaged initial position.

#### *Differentiated perception of support services*

To answer RQ 2, an analysis of variance (ANOVA) was applied. The Games–Howell procedure was used for the post-hoc analysis. The Bonferroni correction was considered at the same time (Punch, 2014) and list-wise deletion was used for dealing with missing data. To specify findings about significant differences in more detail, we will additionally report the effect size  $\eta^2$  (Cohen, 1988).

Table 4 summarizes the results of the significance tests and the average perceived usefulness of various support services separately for the three identified risk groups.<sup>4</sup> The support services are sorted in descending order,

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<sup>4</sup> Prior to this, the participants were asked how often they had used various support services. If they stated that they had used a respective support service at least once, they were asked to assess the usefulness of the support service.

which refers to the assessment of usefulness by the first risk group (“good initial position, many social resources”).<sup>5</sup>

The comparison of the three risk groups revealed five significant differences. The perceived usefulness differed above all in the support provided by the personal environment, namely concerning parents, siblings, friends, relatives, and teachers at lower secondary school. While the effect of the significant difference regarding the perceived usefulness of parents was medium-sized, for the other four differences a small effect size was registered. Post-hoc analysis showed a uniform pattern. In relation to all five differences, the young people with a moderate initial position and few social resources rated the usefulness of the included support services lowest in each case. It can be assumed that the “few social resources” that induce the risk in this risk pattern (see “Identification of distinct risk patterns”) is reflected in these values. The relative usefulness of parents in the process of vocational orientation is also striking. While parents occupied first place in the rankings of the two risk groups with many social resources, they occupied only tenth place in the ranking of young people with a moderate initial position and few social resources.

Table 4

Descriptive statistics and ANOVA results	Descriptive Statistics			ANOVA	
	Risk Pattern			F-value	significance (effect size $\eta^2$ )
How useful ...?	1 Good initial position, many social resources M	2 Moderate initial position, few social resources M	3 Bad initial position, many social resources M		
Parents	3.39	2.36	3.11	23.166	*** (.120)
Internet	2.99	2.88	3.04		
Teachers in bridge-year course	2.91	2.96	2.97		
Other transitional options	2.67	2.54	3.00		
Siblings	2.65	2.20	3.00	5.779	** (.055)
Company employees	2.53	2.90	2.64		
Representatives of post-compulsory schools	2.46	2.45	2.38		
Vocational information centre	2.42	2.37	2.43		

<sup>5</sup> The first risk group was chosen to create a ranking since it contained the majority of the respondents.

Friends	2.41	2.24	2.68	4.158	* (.031)
Relatives	2.36	1.92	2.48	4.153	* (.040)
Career coach	2.35	2.39	2.69		
Career counsellor	2.33	2.12	2.43		
Teachers at lower secondary school	2.19	1.84	2.33	4.000	* (.025)
Information event at compulsory school	2.17	2.00	2.22		
Job fairs	2.14	2.43	2.32		
Principals at compulsory school	2.12	2.20	1.67		
Social worker at compulsory school	2.00	2.46	2.18		

Note: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; 1 (*is not true at all*), 2 (*is somewhat untrue*), 3 (*is somewhat true*), 4 (*is absolutely true*).

### *Bounded agency in the process of vocational orientation*

To investigate RQ 3, on how representatives of different risk patterns describe their individual process of vocational orientation (with a special focus on [bounded] agency), the qualitative data were analysed using deductive-inductive content analysis (Kuckartz, 2016; Mayring, 2015). The main categories for the analysis of the qualitative data were derived deductively. Accordingly, the main categories were based on theoretical reflections. In contrast, the subcategories concretizing the main categories were developed inductively using a data-driven approach.

In the following section, we focus on aspects concerning occupational choice and aspects of agency and boundaries within the vocational orientation process. Both topics were discussed extensively in the interviews.

In the view of all interviewees, the aspect of “agency”—in the sense of taking an active role—was important in the process of the vocational orientation of young adults with a prolonged path from compulsory school to vocational education and training. This can be proven based on the statements assigned to the subcategory “occupational choice already existing”. In this respect, interviewees indicated that they had an initial plan concerning which profession to choose. Furthermore, 10 of the 12 interviewees reported “independence” concerning their vocational orientation process and related occupational choice.

At the same time, there were also statements and respective results supporting the fact that the process of vocational orientation was perceived as “bounded.” The adjustment of career aspirations and occupational choice was addressed in statements as frequently as “independence”. Furthermore, for some interviewees occupational choice was a mostly rational decision.

An interesting picture of how occupational choice was made emerged from a differentiated analysis for the identified risk patterns (see Table 5). The interviewees in the three risk groups perceived their occupational choices rather differently. On the one hand, this is visible based on the extent to which the subcategory was mentioned (see the shades of grey in the table). On the other hand, there were differences in the group-specific interpretation of the subcategories (see the terminology in Table 5).

Table 5  
*Occupational choice differentiated for identified risk patterns*

Main category and its subcategories	1 Good initial position, many social resources	2 Moderate initial position, few social resources	3 Bad initial position, many social resources
Occupational choice ...			
Already existing	Regarding vocational field		Rather concrete
Adjusted	Due to high expectations or changes in interests	Mostly due to disillusionment	
Independent	As the second step	As a necessity (lack of resources)	As a principle
As a rational decision		Taking opportunities	Extended time for decision-making

*Note:* Marking in light grey indicates that some representatives addressed the given aspect within the interviews; marking in dark grey indicates that all representatives addressed the given aspect within the interviews.

Starting with the subcategory “occupational choice already existing”, we discovered that this was an issue for both of the groups with many social resources, while it was not for those young adults with few social resources. While some but not all representatives of the first group reported rather broad occupational plans—for example “*something with contact with people*” (Flutura,<sup>6</sup> 10)—all of the representatives of the third group had quite concrete plans, as the statement “*I wanted to be a flight attendant.*” (Jerfi, 13) exemplifies.

<sup>6</sup> Names were replaced using the same gender and same cultural origin. Interviews were conducted in Swiss German with an idiomatic translation into English.



Concerning aspects of the subcategory “occupational choice adjusted”, it can be seen that the majority of the interviewees in the first group had to adjust their original plans due to a mismatch in personal competences and labour-market requirements. At least the first aspect indicates the existing boundaries that interviewees experienced in their vocational orientation process. A contextual boundary was reported by young people in the second group because adjustments were made during the vocational orientation process due to disillusionment. Izumi describes these boundaries as a combination of contextual and personal aspects:

*So, my first priority was Polydesigner. The problem was just: I've done internships at various places, but they asked for a Multicheck<sup>7</sup> and I achieved rather tight results. The profession is just very trendy. Many WANT this, but only a few companies offer it. [...] So I kept looking. (Izumi, 8)*

Izumi describes a mismatch between the high demand for specific vocational education and training on the one hand and the few apprenticeships available on the other hand (distant contextual boundary), which leads to a challenging situation, especially when considering her average performance on the *Multicheck* (an individual boundary).

All of the interviewees reported some kind of independence during their vocational orientation process, but their statements hint that representatives of distinct risk patterns experienced this aspect with different intensities and various meanings. For the group with a good initial position and many social resources, self-directed choices were rarely mentioned. When they were, they had the connotation of a logical continuation after the initial impulse was provided by personal environments. In contrast, for the group with a bad initial position and many social resources, independence was a principle that was crucial for all interviewees. Statements such as “*Ultimately, I've got to know which direction I want to go in*” (Deborah, 98) and “*If you want something, you can do it alone*” (Jerfi, 187) illustrate this assumption. For the group with few social resources, independence was less of a choice than a necessity. As they did not have a network in terms of social resources, they had to take charge of their own decisions at an early stage in the vocational orientation process.

The same group provided most of the text passages in the interviews which indicated that occupational choice was experienced as being externally controlled (taking advantage of opportunities) rather than self-directed. This can be seen, for example, in the following quote from Chamay:

<sup>7</sup> Multicheck is an aptitude test that is often required by host companies in the application process for vocational education and training in Switzerland.

*Everyone does that. (laughs) It's really like that. I really didn't have a clue. So, I said, "OK, where are you?" On [an intermediately demanding lower secondary track]. "So why don't you do the commercial training?" I think it's like (...) a job, where everyone says that's a very good foundation. (Chamay, 16)*

As Chamay—in contrast to the young people in the other groups—has no role model for vocational orientation, she chose what “*everyone does*”. Furthermore, she did not opt for a profession. Instead she called the decision a “*good foundation*”. This indicates that the decision is a rational or reasonable one.

Overall, the interviews revealed aspects supporting the idea of agency as well as aspects supporting the idea of boundaries. These aspects are not identical in relation to the different risk patterns and highlight differences in the vocational orientation process.

## Discussion

In this paper, we illuminated the process of vocational orientation in detail. In this context, several risk factors were considered in order to identify distinct patterns of risk and, in so doing, to identify and describe different groups of young adults. We also examined their perceptions of support within the vocational orientation process provided by various support services. Furthermore, the theory of bounded agency was considered in particular as we analysed the extent to which aspects of agency and boundaries are apparent when young people with different risk patterns explain their vocational orientation process.

In light of this theoretical approach, our empirical data revealed three groups experiencing different ranges of risk. Relatively low risks were found in relation to the first group, while the risk for group two was essentially induced by limited resources and that for group three by a disadvantaged initial position. The three groups differed according to the support provided by their personal environment as the young people with a moderate initial position and few social resources rated the usefulness of support services the lowest. Furthermore, this group rated the support of their parents—according to several research findings the most important support in vocational education (see Gebhardt et al., 2015)—with a late range order and a rather low mean. To gain a deeper understanding of the agency aspect in vocational orientation, qualitative data showed differences in the perception of agency for the three risk patterns. Active aspects have been found in all of the groups but with a different understanding. Being independent was perceived as a principle for the group with a bad initial position and many social resources and as a necessity for the group with a moderate initial position and few social resources. This highlights the interdependence of agency and the differing

relational and temporal boundaries (Evans, 2017). The question is whether it is still possible to talk of agency when self-directed choices result from a lack of social resources.

Considering these results in the light of the theoretical process model of vocational orientation, we could formulate the following aspects as indices for pedagogical intervention:

- (1) For the individual as an actor, the data show that action is interdependent with boundaries. It could be proposed that agency as a self-directed choice seems to be possible if a young adult has the social resources to make such a choice. Otherwise, giving responsibility for career choice to the individual can lead to overburdening and insufficiently considered career choices. For pedagogical institutions, this means that the capacity to decide in vocational orientation should not be taken for granted but should be built up as early as possible to allow young adults agency in their vocational decisions.
- (2) If we look at various social resources, the data are in line with other research demonstrating differences in their existence (e.g., Scharenberg et al., 2016). While pedagogical institutions can hardly address initial position and perceived parental helpfulness, they could serve as a substitute. This seems not to be the case for all of the groups. As such, support at lower secondary school and bridge-year courses should be designed with a focus on individuals and their differing relational and situational resources.
- (3) Focusing on the distant contextual factors, we can assume that for some young people a prolonged transition can be perceived as a burden and an uncertainty but for others the opportunity to improve their vocational opportunities. The question of what an additional year can mean for young adults was not the focus of the present paper but has been discussed in other papers (see Kamm, Gebhardt, Gonon, Brühwiler, & Dernbach-Stolz, 2019).

Essentially, our analyses show that different groups of young adults need to be supported differently in their vocational orientation. A group lacking social resources needs to be addressed differently than one with a low initial position. Support provided by pedagogical institutions should therefore take into account the individual and situational contexts of the young people in vocational orientation. Agency should not be understood as a condition but rather as a capacity which must be built up, with individual boundaries taken into account.

Since the scope of this paper was limited, the aim was to illuminate vocational orientation with a focus on risk factors, support services, and aspects of bounded agency. Moreover, we were particularly interested in young adults with a prolonged transition. However, the process of vocational orientation is more complex and individually diverse. As a consequence, our view of vocational orientation is incomplete. As such, individual reasons for attending a bridge-year course, for example, could have additionally been taken into account. This is even more crucial since attendance at a bridge-year course is in many cases associated with risk and failure in the transition into vocational education and training, even though the reasons for attendance can be diverse and also interpreted positively (e.g., if a young adult intends to fill in educational gaps or increase their chances for finding an appropriate apprenticeship). From a methodological point of view, our study has further limitations. There are a substantial number of missing values in the quantitative data. Additionally the quantitative sample size ( $n = 406$ ) and the qualitative sample size ( $n = 12$ ) are rather small. As another limitation, the data only refer to the context of the German-speaking part of Switzerland. It would therefore be interesting to have a broader or even international and comparative perspective in future research, especially for the aspects of bounded agency in vocational orientation.

This is particularly relevant in light of the increasing activation policy and empowerment regarding decision-making in the transition between school and vocational education and training. Considering the included theoretical models, an international perspective would be helpful since varying boundaries can be assumed in different transition systems. Future research should focus on the consequences of such differing boundaries for the scope of action of young adults.

## References

- Berweger, S., Krattenmacher, S., Salzmann, P., & Schönenberger, S. (2013). *LiSA. Lernende im Spannungsfeld von Ausbildungserwartungen, Ausbildungsrealität und erfolgreicher Erstausbildung*. St. Gallen: PHSG.
- Billet, S. (2006). Relational interdependence between social and individual agency in work and working life. *Mind, Culture, and Activity*, 13(1), 53–69.
- Blossfeld, H.-P., Hofacker, D., & Bertolini, S. (2011). *Youth on globalised labour markets: Rising uncertainty and its effects on early employment and family lives in Europe*. Opladen: Budrich.
- Bundesamt für Statistik (BFS). (2016). *Der Übergang am Ende der obligatorischen Schule* (Vol. 2016). Neuchâtel: BFS.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale: Lawrence Erlbaum Associates.
- Collins, L. M., & Lanza, S. T. (2010). *Latent class and latent transition analysis. With applications in the social, behavioral and health sciences*. Hoboken: John Wiley & Sons.

- Creswell, J. W. (2014). *Research design qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks: Sage.
- EDK (Swiss Conference of Cantonal Ministers of Education). (2015). *Chancen optimal nutzen. Erklärung 2015 zu den gemeinsamen bildungspolitischen Zielen für den Bildungsraum Schweiz* (Revised statement). Retrieved from [https://edudoc.ch/record/117294/files/erklarung\\_18052015\\_d.pdf](https://edudoc.ch/record/117294/files/erklarung_18052015_d.pdf)
- Evans, K. (2002). Taking control of their lives? Agency in young adult transitions in England and the New Germany. *Journal of Youth Studies*, 5(3), 245–269.
- Evans, K. (2017). Bounded agency in professional lives. In M. Goller & S. Paloniemi (Eds.), *Agency at work: An agentic perspective on professional learning and development* (pp. 17–36). Cham: Springer International Publishing.
- Gebhardt, A., Kamm, C., Brühwiler, C., Dernbach-Stolz, S., & Gonon, P. (2017). *Gelingende Übergänge für Risikogruppen in die Berufsbildung (GÜRb). Zwischenbericht zur quantitativen Datenerhebung*. St. Gallen: PHSG.
- Gebhardt, A., Schönenberger, S., Brühwiler, C., & Salzmann, P. (2015). Relevanz, Nutzungshäufigkeit und eingeschätzte Nützlichkeit unterschiedlicher Unterstützungsangebote aus Sicht von Jugendlichen während des Berufsorientierungsprozesses. *Wirtschaft und Erziehung*, 67(7), 38–49.
- Geiser, C. (2011). *Datenanalyse mit Mplus. Eine anwendungsorientierte Einführung*. Wiesbaden: VS Verlag.
- Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, 60, 549–576.
- Häfeli, K., & Schellenberg, C. (2009). *Erfolgsfaktoren in der Berufsbildung bei gefährdeten Jugendlichen*. Bern: EDK.
- Hupka-Brunner, S., Samuel, R., & Bergmann, M. M. (2016). Der Einfluss der sozialen Herkunft auf postobligatorische Bildungsverläufe in der Schweiz. In K. Scharenberg, S. Hupka-Brunner, T. Meyer, & M. M. Bergmann (Eds.), *Transitionen im Jugend- und jungen Erwachsenenalter. Ergebnisse der Schweizer Längsschnittstudie TREE* (Vol. 2) (pp. 45–74). Zürich: Seismo Verlag.
- Kamm, C., Gebhardt, A., Gonon, P., Brühwiler, C., & Dernbach-Stolz, S. (2019). Learners' perceptions of a career guidance curriculum in different school-based support systems in Switzerland. *Journal for Vocational Education and Training*.
- Kogan, I., Noelke, C., & Gebel, M. (2011). *Making the transition: Education and labor market entry in Central and Eastern Europe*. Stanford: Stanford University Press.
- Kriesi I., Buchmann, M., & Jaberg, A. (2012). Educational success and adolescents' well-being in Switzerland. *Swiss Journal of Sociology*, 38(2), 245–265.
- Kriesi, I., Neumann, J., Schwenk, J., Griga, D., Kuhn, A., Schmid, E., & Baumeler, C. (2016). *Bleiben? Geben? Neu beginnen? Häufigkeit, Ursachen und Folgen von Lehrvertragsauflösungen*. Zollikofen: EHB.
- Krippendorff, K. (2013). *Content analysis: An introduction to its methodology* (3rd ed.). Thousand Oaks: Sage.
- Kuckartz, U. (2016). *Die inhaltlich strukturierende qualitative Inhaltsanalyse—Methoden, Praxis, Computerunterstützung* (3rd ed.). Weinheim & Basel: Beltz Juventa.
- Lubke, G. H., & Muthén, B. O. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods*, 10(1), 21–39.
- Lüdtke, O., Robitzsch, A., Trautwein, U., & Köller, O. (2007). Umgang mit fehlenden Werten in der psychologischen Forschung. Probleme und Lösungen. *Psychologische Rundschau*, 58(2), 103–117.

- Mayring, P. (2015). *Qualitative Inhaltsanalyse. Grundlagen und Techniken* (12th rev. ed.). Weinheim: Beltz.
- Meyer, T. (2018). Von der Schule ins Erwachsenenleben: Ausbildungs- und Erwerbsverläufe in der Schweiz. *Social Change in Switzerland*, 13.
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus user's guide* (7th ed.). Los Angeles: Muthén & Muthén.
- Neuenschwander, M. P. (2017). Schultransitionen – ein Arbeitsmodell. In M. P. Neuenschwander & C. Nägele (Eds.), *Bildungsverläufe von der Einschulung bis in den ersten Arbeitsmarkt. Theoretische Ansätze, empirische Befunde und Beispiele* (pp. 3–20). Wiesbaden: Springer VS.
- Neuenschwander, M. P., Gerber, M., Frank, N., & Rottermann, B. (2012). *Schule und Beruf. Wege in die Erwerbstätigkeit*. Wiesbaden: Springer VS.
- Organisation for Economic Co-operation and Development (OECD). (2016). *Education at a glance 2016: OECD indicators*. Paris: OECD Publishing.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Beverly Hills: Sage.
- Punch, K. F. (2014). *Introduction to research methods in education*. Los Angeles: Sage.
- Rudd, P., & Evans, K. (1998). Structure and agency in youth transitions: Student experiences of vocational further education. *Journal of Youth Studies*, 1(1), 39–62.
- Sacchi, S., & Meyer, T. (2016). Übergangslösungen beim Eintritt in die Schweizer Berufsbildung: Brückenschlag oder Sackgasse? *Swiss Journal of Sociology*, 42(1), 9–39.
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7(2), 147–177.
- Scharenberg, K., Hupka-Brunner, S., Meyer, T., & Bergmann, M. M. (2016). *Transitionen im Jugend- und jungen Erwachsenenalter. Ergebnisse der Schweizer Längsschnittstudie TREE* (Vol. 2). Zürich: Seismo Verlag.
- Stolz, S., & Gonon, P. (2013). Übergangssysteme im Spannungsfeld von Exklusion und Inklusion – eine vergleichende Perspektive. In J. Rottman, G. Böheim-Galehr, C. Brühwiler, & P. Gonon (Eds.), *Berufsorientierung und regionales Übergangsmangement in der Internationalen Bodenseeregion* (pp. 81–94). Frankfurt a. M.: Peter Lang.
- Walther, A. (2009). ‘It was not my choice, you know?’: Young people’s subjective views and decision-making processes in biographical transitions. In I. Schoon & R. Silbereisen (Eds.), *Transitions from school to work: Globalization, individualization, and patterns of diversity* (pp. 121–144). Cambridge: Cambridge University Press.
- Witzel, A., & Reiter, H. (2012). *The problem-centred interview: Principles and practice*. Los Angeles: Sage.

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