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**UNIVERSITÄT
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DEVELOPMENT OF CAREER PREPARED- NESS IN ADOLESCENTS

VALORIZATION REPORT

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1. RESEARCH QUESTIONS

This project aimed to examine how career preparedness develops prior to transitioning to vocational education and training (VET), who is more or less likely to develop what type of career preparedness, for whom is career preparedness more or less important, what effect career preparedness has on work adjustment in VET and later professional development, and how career preparedness can be enhanced by career guidance practices and interventions.

2. INTEGRATIVE REVIEW ON CAREER PREPAREDNESS

After extensive literature research and review on the topic of career preparedness, we have identified three key elements of career preparedness. These key elements pertain to attitudes, behaviors, knowledge and competencies necessary to deal with work- and career-related challenges (see Figure 1).

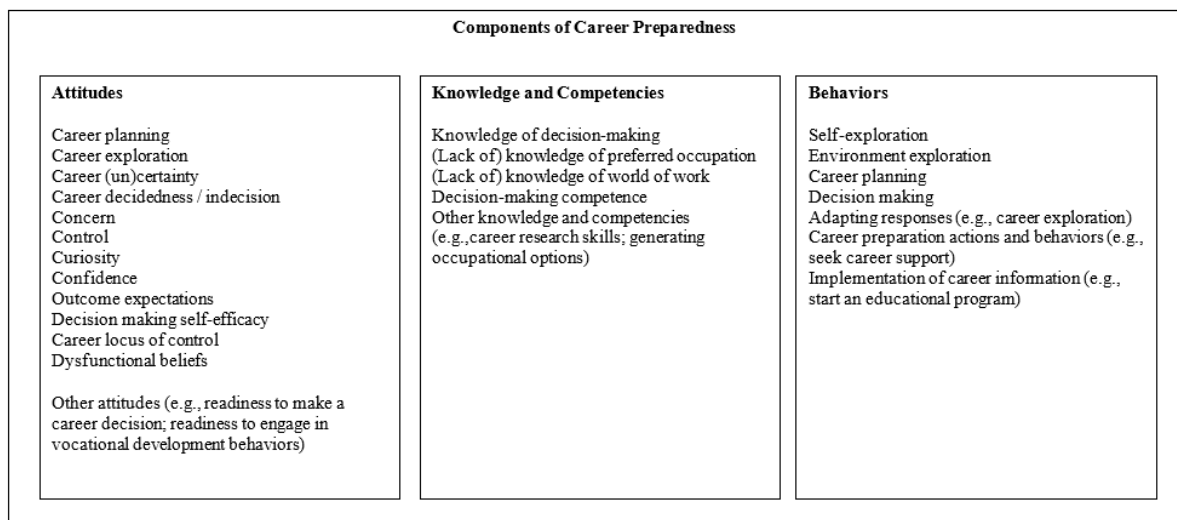


Figure 1. Components of career preparedness (from Marciniak, Johnston, Steiner, & Hirschi, 2020)

We further noticed that there is a lack of clarity in the literature how career preparedness is defined. Therefore, we have defined career preparedness in an umbrella term as *the attitudes, knowledge, competencies, and behaviors necessary to deal with expected and unexpected career transitions and changes*.

Next, we investigated the antecedents and outcomes of career preparedness, which we then grouped into an integrative framework (see Figure 2). Leaning on the social-cognitive model of career self-management (Lent et al., 2016), we propose a reciprocal relation between the three career preparedness components of attitudes, knowledge and competencies, and behaviors, where knowledge and competencies (e.g., knowledge of decision-making), and attitudes (e.g., curiosity) lead to action behaviors (e.g., exploration behavior). Based on Super and Hall (1978) we also presume that these behaviors in turn affect changes in knowledge and competencies (e.g., world of work knowledge), and attitudes (e.g., career decision-making self-efficacy). Career preparedness

behaviors lead to different outcomes (e.g., job offers/rejections), which act as a feedback mechanism, leading to changes in career preparedness.

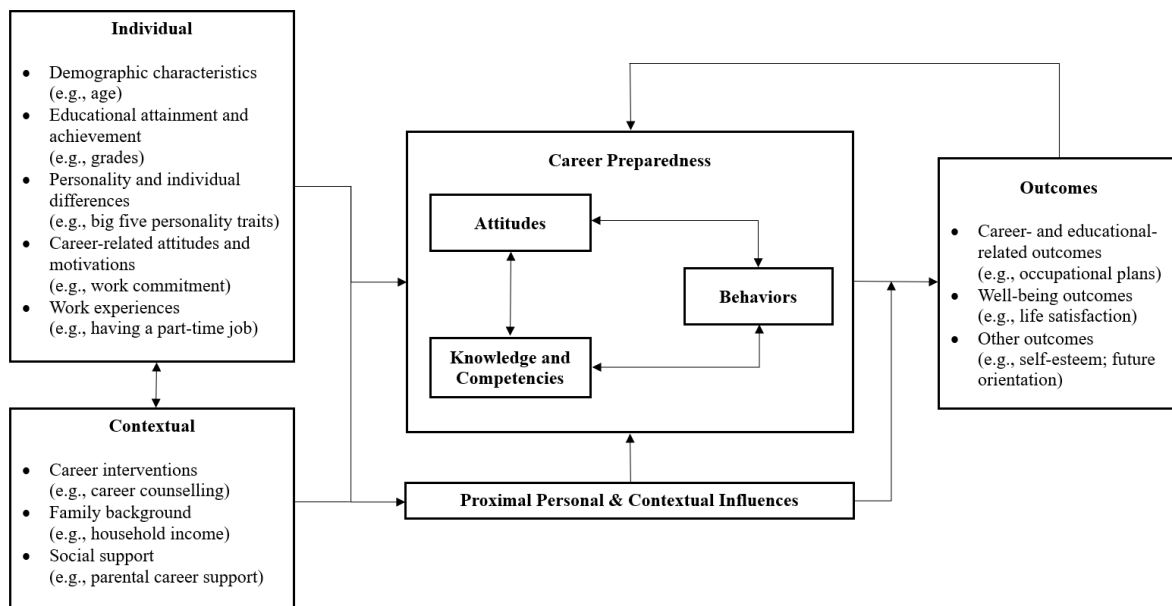


Figure 2. Model of career preparedness (from Marciniak, Johnston, Steiner, & Hirschi, 2020)

Drawing on the social-cognitive model of career self-management (Lent et al., 2016), we moreover conceptualize the reviewed more distal individual (e.g., personality) and contextual factors (e.g., family background) as predictors of career preparedness. These more distal predictors may further influence more proximal personal and contextual influences on career preparedness in the current career context (e.g., career barriers, disability status, social support), and may also support or interfere with career actions (i.e., moderate the effects of actions on outcomes). For further details, please consult the review on career preparedness (Marciniak, Johnston, Steiner, & Hirschi, 2020)

3. MEASURING CAREER PREPAREDNESS

Building on the previously mentioned review, we have developed a comprehensive and concise measurement tool of career preparedness, the Career Resources Questionnaire for Adolescents (CRQ-A). The questionnaire assesses 12 distinct aspects of career preparedness, which can be grouped into four dimensions (see Figure 3.) The CRQ-A provides practitioners with a simple, comprehensive, and understandable framework for career preparedness in adolescents that can inform their various career development interventions. Moreover, the CRQ-A may be used in career counseling as a screening instrument to diagnose career preparedness in adolescents quickly and reliably regarding the strengths and weaknesses of a single adolescent or groups (e.g., classes). Using this knowledge, practitioners could specifically tailor interventions to the identified career development needs. Lastly, the CRQ-A can be used to evaluate career preparedness interventions' effectiveness with pre- and post- intervention tests.

For more detail, please consult the article on the CRQ-A (Marciniak, Hirschi, Johnston, & Haenggli, 2020).

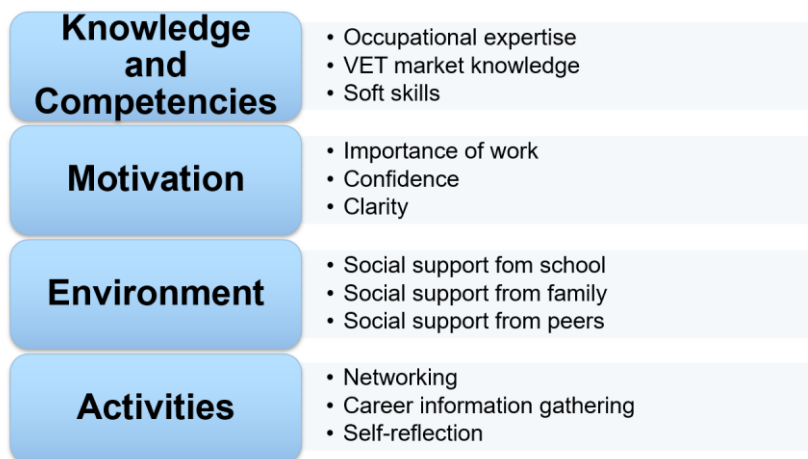


Figure 3. The four dimensions of the Career Resources Questionnaire for Adolescents, including the respective three sub-dimensions (from Marciniak, Hirschi, Johnston, & Haenggli, 2020).

4. CAREER PREPAREDNESS INTERVENTIONS

We have designed and executed two career interventions with adolescents in the eighth grade. Each of the career interventions was focused on developing different facets of career preparedness. Herein follows a description of the interventions that were carried out:

TRADITIONAL DECISION-MAKING APPROACH

The traditional decision-making intervention was based on person-environment fit theory (e.g., Dawis, 1992; Muchinsky & Monahan, 1987; French, Caplan, & Harrison, 1982) and focused on self-exploration and environmental exploration. In order to explore the concepts of strengths and interests, we grouped the adolescents into five interest groups: sports, shopping, entertainment, reading, and music and arts. Adolescents were tasked to answer what someone needs to like doing (i.e., interest) or needs to do well (i.e., strength) for their respective interest group. After identifying a list of strengths and interests, adolescents reflected on which seemed to resonate the most with themselves. Subsequently, the groups were tasked to identify professions that might exist in their respective interest field (e.g., “does a person exist who solely makes footballs?” or “who sells footballs?”). For this activity adolescents were provided with posters that group vocations in 22 vocational fields (Zihlmann, 2020). To assist the discovery of each vocation, post cards with a short two sentence description of each vocation were provided (Laufbahnzentrum Zürich, 2017). After discovering several vocations in a given interest group, adolescents were tasked to choose up to three vocations that they would like to examine more closely in the next session.

In the next session, adolescents were provided with more detailed descriptions of their vocations (GATEWAY Solutions AG, 2017). Here, adolescents were tasked to reflect on whether their strengths and interests fit the needs of the vocation, and were generally asked whether they liked the given vocation. For the next activity the adolescents were asked to choose their most liked vocations from the previous session, and participated in a future work self activity (Strauss, Griffin, & Parker, 2011). During this activity the adolescents imagined themselves working in their future profession and reflected on their hopes and aspirations to their work. To conclude the intervention, adolescents were

tasked to reflect on the lessons learned from both sessions and any outstanding questions/comments were discussed in a final discussion.

PROACTIVE PREPAREDNESS APPROACH

The proactive intervention started by increasing the motivation in participation of asking adolescents about the importance of making a career decision. Subsequently, adolescents learned about the six steps necessary to complete the career decision-making process (SDBB, 2020): 1. identifying strengths and interests, 2. exploring the world of work, 3. creating a match between oneself and the world work, 4. exploring a vocation by doing an internship, 5. evaluating the internship(s), and 6. applying for the chosen vocational position. Afterwards, adolescents reflected in six groups (one group per step) on the resources that could help them deal with a given career decision-making step (e.g., “who or what could help explore the world work?”).

Once aware of available resources for the career decision-making process, adolescents were introduced to goal-setting (Locke & Latham, 1984) and implementation intentions (Gollwitzer, 1999) principles. Here, adolescents were tasked to develop (sub-)goals with feedback loops for three career decision-making steps: 1. identifying strengths and interests, 2. exploration of vocations by doing internships, and 3. applying for a chosen vocational position. Adolescents shared their strategies and goals to the group, and afterwards reflected on their own personal next (sub-)goals. Subsequently, adolescents had to develop strategies for overcoming obstacles or setbacks in each of these three scenarios: 1. being unable to discover one’s strengths and interests, 2. having experienced an unsatisfactory internship, and 3. receiving rejections during the application process. The groups shared their strategies in front of the whole class room. For both the goal-setting and setback exercises the adolescents were tasked to reflect on which of their previously identified resources could be the most useful to deal with career decision-making step.

Matching the future work self (Strauss, Griffin, & Parker, 2011) exercise from the other intervention, adolescents were tasked to imagine themselves in day of their career-decision making process and reflected on their hopes and aspirations to their process. To conclude the intervention, adolescents were tasked to reflect on the lessons learned from both sessions and any outstanding questions/comments were discussed in a final discussion.

RESULTS

When investigating the results, we found that the traditional decision-making approach was quite effective in increasing career preparedness motivations three months after the intervention took place. Additionally, we found that the adolescents in this condition showed higher career preparedness behaviors six to eight months after the intervention.

In contrast, the proactive preparedness intervention showed negative effects on career preparedness motivations and activities. There are many possible reasons that could have contributed to the intervention’s negative effect. Currently, the most plausible reason seems to be that the cognitive processes that underlie proactive career behavior (e.g., planning ahead of time) may be linked to the developmental stages of increasing executive functioning that can be associated with adulthood.

Further, our proactive preparedness approach might be effective, but possibly applied at the wrong time. For instance, we taught the adolescents how to deal with tasks such as rejections from applications, which at the beginning of eighth grade is not a prominent concern for many adolescents. In other words, our results show that dealing with career preparation steps that are not currently relevant to the adolescents may in fact lower career preparedness. However, if this intervention would have had a better match with the adolescents' current career preparedness concerns (e.g., dealing with setbacks in ninth grade), more positive results might have been possible. These results therefore show that caution needs to be applied when implementing proactive principles into career interventions with adolescents.

5. PERSONALITY, SOCIO-DEMOGRAPHIC FACTORS, AND TRANSITION TO VET

We investigated whether socio-economic factors and personality characteristics impact the development of career preparedness across grades eight and nine, and the subsequent transition from school-to-work. For this investigation, we recruited about 1000 adolescents from the German speaking parts of Switzerland. We assessed the adolescents' career preparedness at the beginning, middle, and end of grades eight and nine. Subsequently, we inquired about the adolescents at the end of their first year of VET. Using the dimensions from Figure 3, we noticed that being an immigrant (i.e., not born in Switzerland) and having a mother with high socio-economic status were associated with lower career preparedness at grade eight. However, we found that these factors did not play a role in the subsequent development of career preparedness across grades eight and nine.

Furthermore, we investigated whether personality characteristics would impact the development of career preparedness. Specifically, we chose to investigate the influence of self-esteem, conscientiousness, and a proactive personality on career preparedness. We found that adolescents with these personality traits exhibited higher levels of career preparedness at the beginning of grade eight, and developed career preparedness better across both grades eight and nine.

Lastly, we investigated how career preparedness influences the transition from school to vocational educational training (VET). Here, the results show that adolescents who score high on career preparedness motivation during school tend to have higher job satisfaction, higher occupational commitment, and lower turnover intentions at the end of their first year of VET.

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