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## How to Support Young Adults Individually in Career Choice? - The Model of Knowledge in the Career Choice Process (KCCP)

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### Abstract

In the social-cognitive career theory (SCCT), Lent et al. (1994; 2002) postulate an influence on behaviour in the career choice process through self-efficacy. If relationships between self-efficacy and career choice activities as well as knowledge can be confirmed, this results in possibilities of educational intervention for practical implementation in public or private educational institutions in order to be able to support young people in their career choice process. Therefore, in a self-conducted, earlier study (cited: Struck & Ciesla, 2019), we made a theoretical and empirical further development of the model of knowledge in the career choice process (KCCP), which construction is also based on the theoretical model assumptions of the SCCT by Lent et al. (1994; 2002). In difference to the SCCT, the KCCP model, can explain five different, relevant dimensions of knowledge. Thus, the KCCP model deals with the question how self-efficacy and outcome expectations are related to behaviour in the career choice process and to knowledge. The findings should simplify a successful school-to-work transition for young adults and are intended to point out new aspects of their competence development. In conclusion, various approaches are discussed how young adults can be individually supported in the career choice process, for example by teachers, parents and career counsellors. These include greater individualization of the career orientation opportunities in guiding and facilitating targeted self-reflection (Kalisch, 2017), in the use of peer education in the career choice process (Struck, 2018), and in the utilization of sources of self-efficacy (Bandura, 1997).

### Keywords

career development; self-efficacy; individual support; self-reflection

## 1 Introduction

The importance of the first choice of a vocational education and training after the end of school poses a particular challenge for young adults from several perspectives and uniformly offered vocational orientation measures are not equally effective for all young people. Therefore, the offers must be more individualized in the future. At present, it appears that the vocational orientation measures on offer have different meanings and effects for young people. There is no intervention that is equally beneficial to all young people. Overall, an attempt must be made to individualize the vocational orientation offerings more strongly in order to better differentiate between the interests of young people.



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One of the main goals of career orientation (in Germany) is a successful school-to-work transition for young adults. Therefore, different career orientation opportunities also try to expand knowledge; likewise, knowledge about different occupations, self-knowledge as well as conceptual knowledge, conditional knowledge and planning competence. A high level of different dimensions of knowledge, like these, seems to be a good and necessary prerequisite for the desired successful school-to-work transition. The special necessity of suitable, individual offers and programs for individual vocational orientation (in Germany) is also illustrated by a relatively stable rate of dissolved vocational education and training contracts of approx. 20-25%, which can be attributed to very individual (such as career choice related or personal) reasons (BMBF, 2018).

Another reason that shows the importance of individual and targeted offers in vocational orientation are the findings of current studies (Shell, 2015; Schnitzler & Granato, 2016; Struck, 2017a; Statistisches Bundesamt, 2016; 2018), which have identified a trend towards increased educational aspirations in Germany in recent years. As a result, vocational education and training places in Germany remain vacant. Increased educational aspirations are reflected in two phenomena: These include in general the desire to a continuative school attendance and, in particular, an increasing trend toward a high school degree and university education. Young school leavers are more likely to end up at university, whereas vocational education and training seems to have lost some of its appeal by comparison. This is because (more and more) young adults make a conscious and active decision to attend a high school and have not applied for a vocational education and training place before. Some other young people, contrary, choose a high school attendance because they have not yet known which vocational education and training, they wanted to learn. They made their choice rather out of embarrassment, in the form of a short-term decision. For them, a continuative school attendance seems to be a kind of stopgap solution, but at the same time, it gives them a kind of moratorium which prolongs their period of consideration. That makes it evident that the personal choice of a vocational education and training confronts young people with their first major (life) decision (Struck, 2019). This also implies that if young adults do not even aim to start vocational education and training immediately after leaving school, it is important to determine whether and to what extent vocational orientation must be geared to these changed conditions. Especially since the "lifelong occupation" is becoming less relevant. Consequently, the focus seems to be on promoting coping strategies for different (diverse, individual) life situations. In addition, opportunities and possibilities need to be developed for making the career choice process more individual and target group-differentiated through recurring reflection exercises.

The article deals with various approaches how young adults can be individually supported in the career choice process. The arguments and ideas are mainly based on Bandura's (1997) assumptions to the sources of self-efficacy and on the relationship between self-efficacy (and outcome expectations) and the behavior in the career choice process and knowledge, which can be theoretically disused and empirically analyzed by the model of knowledge in the career choice process (KCCP).

## **2 Theoretical background**

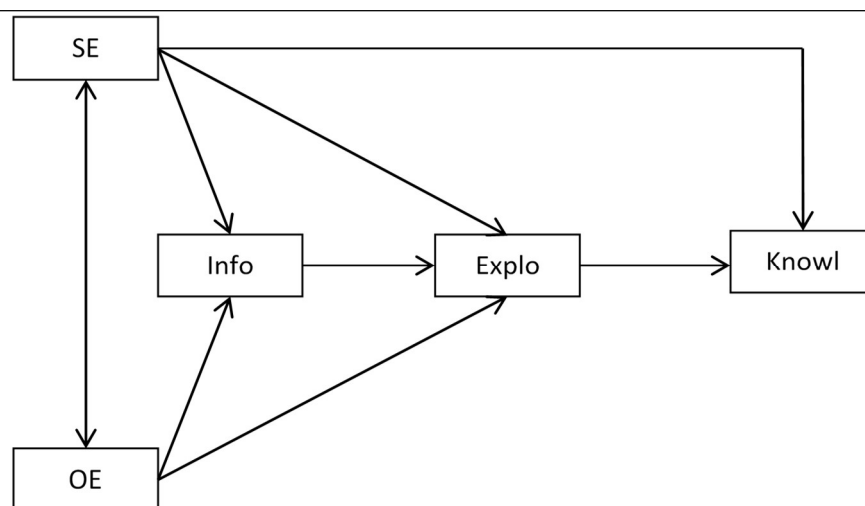
The construction of the model of knowledge in the career choice process (KCCP) by Struck (2016; 2017b) and its theoretical and empirical further development by Struck and Ciesla (2019) is based on the theoretical expectations and models of the social cognitive career theory (SCCT) by Lent et al. (1994; 2002). The SCCT argues that self-efficacy and outcome expectations influence the behavior during the career choice process. Bandura (1997) describes self-efficacy as the attitude of a person to straight his/her focus consistently and successfully on an activity. Accordingly, self-efficacy has also an effect on motivation as well as on effort and the perseverance required in problem solving processes. In the models of the social cognitive career

theory and in the KCCP model, self-efficacy is therefore contained as the major (or central) variable.

The KCCP model is invented on the model concept of the SCCT but will be modified. In the SCCT, the process variables of interests and goals (influenced by self-efficacy and outcome expectations) are seen as prerequisites for achieving performance or satisfaction (endogenous variables). Following this, the process variables of interests and goals, are deliberately changed and replaced by the career choice activities of information readiness and exploration, in order to represent the actions and activities in the career choice process as a prelude to explain a knowledge development. Information readiness can be seen as a motivational requirement and exploration as an activity to discover the self and the environment. The two career choice activities are important conditions and regarded as suitable to illustrate the readiness of the active engagement with the occupation choice. Knowledge, respectively different dimensions of knowledge, result from the increased conviction in one's own abilities and as a result of intensive career choice activities and is therefore suitable as an endogenous variable in the model (Struck, 2016; 2017b; Struck & Ciesla, 2019).

**Figure 1**

*The model of knowledge in the career choice process (KCCP)*



*Note.* SE=self-efficacy, OE=outcome expectations, Info=information readiness, Explo=exploration, Knowl=knowledge.

As shown in figure 1, the two effectiveness beliefs (self-efficacy and outcome expectations) and the career choice activities (information readiness and exploration) will explain knowledge. So that the KCCP model describes the acquisition of knowledge as a result of improved efficacy beliefs and intense career choice activities.

### 3 Methods and results

Following the theoretical development of the model and its first empirical verification by Struck (2016; 2017b), we (Struck & Ciesla, 2019) expanded the model and tested its further development. This consisted in the variation of the endogenous variable knowledge. In the first model analyses, we (Struck, 2016; 2017b) used therefore a scale by Seifert and Eder (1985) which includes knowledge about the favored occupation; in the further development (Struck & Ciesla, 2019), four additional forms of knowledge were tested as endogenous variables in the path model. These are the dimensions of knowledge from the study of Lipowski et al. (2015): Self-knowledge, conceptual knowledge, knowledge of condition and planning competence. The whole questionnaire of Struck and Ciesla (2019) recorded nine scales with 63 items and were

used in a self-assessment process. Five scales were part of the concept to measure the career choice competence (*Berufswahlkompetenz*) by Ratschinski (2008; 2012): Self-efficacy by Fouad et al. (1997), outcome expectations by Fouad et al. (1997), information readiness by Seifert and Stangl (1986), exploration by Kracke (1997) and knowledge about the favored occupation by Seifert and Eder (1985).

The research question in the second study (Struck & Ciesla, 2019) was to examine whether the already identified relationships between effectiveness beliefs and career choice activities could also be transferred to further (four) dimensions of career choice relevant knowledge; and whether the model with its direct and indirect relationships could be confirmed a second time (model review).

The empirical verification of the model was carried out by path analysis on a cross-sectional data set of 493 young adults in grades 7-12 from comprehensive schools and high schools in Germany (mean age: 15.6 years, 51.7% female). The KCCP model was tested five times, with the five different dimensions of knowledge as the endogenous variables in the path models. The analysis confirmed all the five models and found an acceptable proportion of explained variance of the five endogenous variables. The best fit to the data is shown by the model with the endogenous variable of planning competence ( $\chi^2=0.82$ ,  $df=2$ ,  $p=.66$ ,  $RMSEA=0.000$ ,  $CFI=1.00$ ,  $r^2=.20$ ), the highest proportion of explained variance reaches the endogenous variable of self-knowledge ( $\chi^2=6.81$ ,  $df=2$ ,  $p=.03$ ,  $RMSEA=0.070$ ,  $CFI=0.99$ ,  $r^2=.37$ ). The results underlined the expressiveness of the model: Between 20% and 37% of the variance of the endogenous variables had been explained. The development and compilation of the model of knowledge in the career choice process had been theoretically comprehensible and empirically provable. The meaning for the career choice process is crucial because the KCCP model, with its individual direct and indirect relationship expectations between the different variables of the effectiveness beliefs and the career choice activities, had explained all-important forms of knowledge, relevant in the career choice process (Struck & Ciesla, 2019).

The extension and transferability of the model contexts to four further (additional) knowledge dimensions within the results of the model fit of the five models and the proportion of explained variance of the five endogenous variables along direct and indirect effects in the model, had been confirmed by the analysis. These results also pointed out, that the endogenous variable can vary over the five dimensions of knowledge in the career choice process. This increases the meaning, importance and content expressiveness of the KCCP model in general and the successful extension and transfer of the model contexts to other forms of knowledge, which are relevant in the career choice process, increase as well the significance of the KCCP model in terms of content for the practice of vocational counselors, teachers and parents.

#### 4 Conclusion and conceivable consequences

The designed and confirmed model of knowledge in the career choice process describes different forms of knowledge because of improved efficacy beliefs and intense career choice activities. In this way, knowledge (in all five forms) is the result of increased beliefs in their personal abilities and the result of intensive career choice activities. The path model analysis had confirmed the special role of self-efficacy, which determines the level of readiness and activity to cope with challenges in the career choice process and as well as five dimensions of knowledge. Self-efficacy has an effect on the level of the activities and knowledge in the career choice process: It seems, that young adults are more active in their career choice process when they feel confident about their abilities and as a result of their activities, they achieve a higher level of different forms of knowledge (Struck & Ciesla, 2019).

For the practice of career guidance and counseling, these results mean that intervention should aim at strengthening the self-efficacy. Therefore, concrete pedagogical intervention possibilities, options and ideas for increasing self-efficacy will be discussed. In the sense of these

conclusions, further optimization potential for individual vocational orientation should be considered and taken into account.

After the determination of the self-efficacy, young adults can be encouraged and supported individually. If teachers, parents or career counselors try to increase the knowledge (and the activities) to support young adults in the career choice process, they can use the sources of self-efficacy by Bandura (1997). The first source (past performance and learning experiences) is the most effective possibility to increase the self-efficacy. Young adults should gather their own experience and knowledge in different vocational and career decision tasks to get the experience of being successful using their own abilities. This can take place through experiences of success in professional activities and can contribute to the expansion of professional interests, for example through an internship. At the same time, feelings of success in the selection of activities and professions that match one's own strengths and interests also strengthen self-efficacy. In adolescence, the selection can, relate for example to the choice of an internship or holiday jobs. Furthermore, teachers and parents can show positive role models with similar, important characteristics (for example background, gender and age) to improve self-efficacy (second source of self-efficacy: vicarious experiences/representative experiences and observations of role models or positive models). The role model demonstrates that another adolescent has been successful in this task before, like the career choice decision or the school-to-work transition. Friends and peers who have successfully completed the career choice process are suitable. In addition, verbal persuasion (third source of self-efficacy) can help young adults and could be practiced by teachers and parents. The third source includes also social encouragement and linguistic persuasion, such as promoting courage, thereby instilling confidence and conviction in the young adult's skills, as well as positive feedback and praise after successes and the achievement of intermediate objectives in the choice of career. In general: Improved efficacy beliefs are helpful in contributing to education and the school-to-work transition of young adults, as they allow individuals to make independent and profound career decisions (Struck & Ciesla, 2019). The general aim is for young adults to feel confident that they can successfully shape their career choice process and not exclude certain occupations or vocational education and training activities for themselves based on false or insufficient self-efficacy, or be vocationally undecided about their career at the end of their school years.

Moreover, for the second and third source, peers, peer education and peer feedback are useful. People in the same age (peers) can be better modeled and understood, their credibility is higher, and they are more authentic in problem solving. Peer education approaches within schools should be used for individual vocational orientation, young adults from higher classes can tell younger adults about their experiences, their approach and their knowledge. As authentic role models (second source of self-efficacy), they can credibly convey confidence and trust (third source of self-efficacy) in the career choice process. The same applies to a systematic preparation and follow-up of the internships (practical trainings) by the pupils themselves, in the form of peer education (e.g. organizing a separate vocational education and training fair at school where each young adult presents their internship company and the tested occupation). Peers speak "the same language" and do not gloss over potential disadvantages or negative (vocational) experiences. The use of peer education at school and a mentor program in which young adults in the first or second year of their apprenticeship, girls and boys in leaving classes help with the transition, promises to be an effective individual vocational orientation measure to an information and knowledge transfer before the school-to-work transition. Especially because one's own situation can be discussed authentically among peers and similar concerns exist. In addition, the person who reports on his or her own successes has an additional personal learning success (first source of self-efficacy) (Struck, 2018).

Furthermore, reflection exercises for young adults should be more strongly integrated into the career choice process and vocational orientation in the future. Exercises and tasks for

reflecting on the vocational trails that have been carried out and on one's own strengths, abilities and interests, consolidate and strengthen experiences, knowledge and self-concept. Reflection thus enables support in the sense of the first source of self-efficacy. The special importance of reflection methods in the career choice process had also be empirically proven (Sommer & Rennert, 2020). Overall, more time and guidance for goal-oriented self-reflection in the career choice process is called for, which young people urgently need in order to be able to achieve a (better) convergence and coordination of individual interests, wishes and abilities with the needs and requirements of the working. It seems problematic that young adults often have little experience in the areas of self-perception, self-reflection and self-definition. Here there is a chance that teachers or career counsellors, for example, can help to optimize the assessment of one's own strengths and abilities, in the sense of the socialization process and the developmental task (shaping the educational and professional biography). The content objectives of concrete programs (e.g. Kalisch, 2017) include self-exploration and self-reflection in the individual phases of career choice (i.e. repeated examination of oneself) as well as embedding in school-based career guidance and counselling, in the sense of systematic interlocking with other measures. The offers are to be carried out repeatedly in several successive class levels by the teachers or career counsellors. The aim is to enable young people to take responsibility for their career choice process and to make a well-founded career choice decision. This is to be made possible through an intensive and continuous examination of themselves, the development of a (vocational) self-concept, a diverse comparison of self-perceptions and perceptions of others as well as self-experimentation and self-experience in different contexts (Kalisch, 2017).

The suggestions presented here for improved individual vocational orientation take into account the findings of Bandura (1997) on the support of self-efficacy by its sources. Struck and Ciesla (2019) were able to prove the empirical connection between self-efficacy and knowledge relevant in the career choice process. Further research and practical developments will (have to) gain additional importance in the next years in order to verify the suggestions and results presented.

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