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Preparing and accompanying disadvantaged young people in the world of work - present and future requirements for teachers at vocational schools

Abstract

The world of work is characterized by a variety of changes, which go hand in hand with changing social and economic requirements (Beck 2010). As a result of an increasing shortage of skilled workers combined with demographic developments that have resulted in an aging population, young people with poor school-leaving qualifications or personal and social problems are now being accepted into vocational training programs in Germany (BMWT 2013; Becker & Allmer 2013). This means that teachers in vocational schools can no longer teach exclusively theoretical content; they must also develop learners' social and personal skills. Yet such topics are rarely taught in university education or in training programs targeting TVET teaching staff.

To address this gap, 65 teachers from 11 vocational schools in Mecklenburg-Western Pomerania were surveyed using a method-mixed research design (quantitative questionnaire and followed by in-depth qualitative interviews comprising a smaller sample of respondents) (Hug 2001) and asked how they deal with the challenges of preparing disadvantaged youth for the labour market, without having received specific training for this purpose. Their responses, which were analysed thematically using qualitative content analysis according to Mayring (Hussy, Schreier, & Echterhoff 2010), shed light on the competencies that TVET teachers need to fulfil their expanded role in supporting disadvantaged youth, as well as how TVET teacher training programs need to be reformed to meet the new requirements.

The research findings show that there has been a growth in the frequency and severity of different forms of disadvantagement among young people in the transition system in Germany. The most important competencies that TVET teachers need to support this target group are pedagogical skills. However, personal and social skills, as well as a high degree of self-reflection, are also increasingly relevant. Teachers in the transition system have developed various action strategies for dealing with the challenges of supporting disadvantaged learners, but do not currently receive training to assist them in fulfilling their role. Recommended actions for reforming TVET teacher training programs in Mecklenburg-Vorpommern, based on these findings, are presented in the final section of this paper.

Keywords: Inclusion, professionalization of teachers, changing the world of work, pedagogical skills.

1 Introduction: Disadvantaged youth in the German transition system

A current issue affecting Germany economically is a lack of skilled workers (BMWT 2013). Germany has one of the oldest populations in Europe, with over 20% of its population aged 65 or older (WEF 2018). To compensate for this shortage in skilled labour, young people who lack qualifications or who have a disability are now being accepted into vocational training programs (Münk 2013; Becker & Allmer 2013).

However, these young people do not gain entry into formal vocational training programs. They are instead funnelled into the transition system, which focuses on helping young people with no school leaving certificate, disabilities, no complete vocational orientation or other disadvantages make the transition to the labor market through appropriate measures (Baethge 2014; Beicht 2011). Training received in the transition system does not lead to a recognized vocational qualification, but forms an interface between general and vocational education. For the young people themselves, their main focus is on the possibility of obtaining a first or extended school leaving certificate to improve their attractiveness in the labour and training market. A key aim of these measures is to develop these young people's personal and social skills (Krone 2010).

Vocational schools play a role in this process. Teachers in vocational schools are responsible for supporting transition system students in their vocational orientation and preparing them for an apprenticeship (Krone 2010). The focus of training is on *"the teaching and acquisition of learning and social skills, basic knowledge of selected occupational fields and the attainment of apprenticeship entry maturity..."* (Pahl 2014, 428, Translation by the author). By receiving grounding in theory as well as gaining practical experience in their selected occupational field, the young people should develop the competencies needed to assess their own skills and occupational requirements. However, as stated in the German 'Basic curriculum for the university course of studies in vocational and business education within the framework of vocational and business education studies', vocational teachers also require training to deal effectively with disadvantaged pupils or those with disabilities (DGfE 2014).

2 Characteristics of the target group

2.1 Characteristics of German youth

Individuals in their youth phase, who are on the verge of adulthood, desire independent and fulfilling lives (Kiper 2006). In Germany, young people are strongly influenced by pressures to perform well at school and to integrate socially (Wahler 2008). This is because the German school system is highly performance-oriented and is geared toward the acquisition of a good school-leaving certificate, which in turn is decisive in gaining entry to training programs to learn a recognized profession.

According to the Shell Youth Study (2015), young people in Germany today tend to act pragmatically with regard to the demands placed on them: they are prepared to adapt to meet

performance expectations and desire stable personal relationships. When choosing an occupation, job security plays a particularly important role (95 %), and young people's work aspirations can be divided into two categories: benefit orientation (e.g. high salary) and fulfillment orientation (e.g. meaningful work) (Shell Deutschland Holding 2015).

Other studies corroborate these results. For example, a study by Hurrelmann (2014, 22) found that German youth place greater importance on having a good income (75%) and a secure job (71%) than on 'enjoying life' (68%) or 'having many friends' (67%). Likewise, a study by Vodafone (2014) found that 87% of German youth surveyed were willing to delay having fun until later in their careers. However, young people often complain about a lack of knowledge and information regarding occupations and job opportunities, which is a particular challenge for disadvantaged youth (Hurrelmann 2014).

2.2 Characteristics of disadvantaged youth

The term 'disadvantage' has been used since the 19th century to describe the situation where a person is held back or receives less than would be fair. Thus a person is not disadvantaged per se, but becomes so as a consequence of their situation or due to societal prejudices (Korte 2006). Discrimination against specific groups has been shown to result in "*statistically provable disadvantages of these groups in the distribution of educational opportunities and in their educational outcomes*." (Lindmeier & Lindmeier 2012, 57, Translation by the author).

Subgroups of young people who may be described as disadvantaged include those who: have left school early or dropped out; have learning difficulties or are physically or mentally ill; have special learning needs; or have a migration background. These listed characteristics are not mutually exclusive and may overlap in ways that lead to layers of discrimination. Furthermore, disadvantaged youth often experience family and/or personal problems, which may add to their difficulties at school.

For the purposes of this paper, the term "disadvantaged youth" will apply to both young people with long-term and often irreversible disabilities, as well as young people whose disadvantages are not regarded as long-term and should/can be partially overcome or completely eliminated through receiving targetted support (Pätzold, Busian, & von der Burg 2007).

3 Issues in promoting inclusion in the German transitional system

Since the 2000s, the German government has put in place measures to support disadvantaged youth through vocational preparation, which is carried out in vocational schools or other learning venues (INBAS & Dierkes 2002). These vocational preparation measures are seen as a means of integrating students with special needs into the labor market (Euler & Severing 2014). However, this paper argues that not enough has been done to date to promote their inclusion by training TVET teachers on how to cater to the specific needs of disadvantaged youth.

3.1 Ideas of inclusion in the German transitional system

The debate on inclusion in Germany, and associated implementation strategies for improving access to education and employment for disadvantaged youth, was triggered by the 2009 UN Convention on the Rights of Persons with Disabilities. However, the question arises as to whether inclusion has not "always" been a feature of the German transitional system, since the heterogeneity of issues that disadvantaged youth experience and their need for support has made this system necessary (Zoyke 2016).

In contrast to "heterogeneity", "inclusion" means that people with special needs should be accepted, but that their differences should not be emphasized, in society. Inclusion means that educational measures are planned in such a way that everyone can participate on an equivalent basis, which in turn means, for example, that content is prepared differently to address this methodological diversity (Budde 2015). Thus, it is not a matter of adapting students to the system, but rather of offering students a variety of options within the system.

Particularly with regard to their learning needs, disadvantaged and non-disadvantaged students differ from one another. Such differences may concern the pace of learning, their response to the use of different learning media, the didactical implementation of instruction, or teachers' personal approach to students. For this reason, teacher training on how to cater to the specific needs of a diverse range of learners is required.

3.2 TVET teacher training in Germany

Teacher training in Germany is divided into three phases. The first phase takes place in universities or colleges of education and focuses on the acquisition of theoretical knowledge (Blömeke 2004). The course itself consists of two parts: selected vocational subjects and educational science (Terhart 2000a). The aim of the training is to teach scientific content that can be applied later in the practical phases of training as well as in the everyday life of a teacher (Terhart 2009; Radtke 1999).

Preparatory service forms the second phase of teacher training and is conducted through partnerships between training centers and centers for teacher internships. During this phase, trainee teachers put into practice knowledge acquired during the first phase of training and begin designing their own teaching units (Terhart 2000a). Through experiential and reflective practice, trainee teachers gain competencies in the standards expected for teaching, educating, assessing and innovating (KMK 2004).

The third phase, professional practice, builds on the learning that took place during the second, preparatory service phase (Terhart 2000b). In addition to professional practice, further education and training is an integral part of this phase and represents the longest phase in terms of time, since it extends over the entire duration of teachers' professional practice. Teacher training in the form of continuing professional development contributes to the maintenance and expansion of teachers' professional competences and builds their personal skills, expertise, and didactical or pedagogical knowledge (Lempert 2010; Neuweg 2010).

The demands placed on teachers, and the skills that they need to do their jobs effectively, have grown considerably with the added expectation of providing an inclusive and supportive environment for disadvantaged youth (Terhart 2000a). To be able to cater to the needs of disadvantaged students, teachers should have the diagnostic skills to identify learners' specific areas of disadvantage and be able to develop strategies that meet their individual learning needs (Bauer 2000). Yet, when examining teacher training practices in Mecklenburg-Western Pomerania, it has been found that such topics play only a subordinate role in both university education and in the practical training of teachers.

4   Research focus and methodology

The following question thus arises: how do teachers deal with the challenges of the target group of disadvantaged students, without having been taught training content in this context? To answer this question, a method-mixed research design was applied (Hug 2001), whereby questions asked in qualitative interviews during the second phase of the research derived from the findings of the quantitative questionnaire during the first phase (Mummendey & Grau 2014).

The research method may be summarised as follows:
- *First phase:* Questionnaires containing both open-ended and closed-ended questions were distributed to 65 teachers at 11 vocational schools in Mecklenburg-Western Pomerania. These questionnaires mainly asked about the influence of teachers' personal attributes, educational qualifications and work experience on their ability to tailor their teaching to the needs of the target group of disadvantaged learners. The questions used in the questionnaire were based on the findings of a literature review.
- *Second phase:* The first-phase questionnaire findings were used to generate a larger set of questions, which were then used to conduct in-depth interviews with 25 of the teachers who had responded to the initial questionnaire (Friebertshäuser et al. 2013).The purpose of the interviews was to gather data on teachers' personal experiences as well as their action strategies for dealing with the specific issues faced by disadvantaged learners.

In terms of data analysis, the questionnaires were analysed using basic descriptive statistics, while the interviews were analysed thematically, on the basis of a qualitative content analysis according to Mayring (Schmidt 2013; Bogner, Littig, & Menz 2014; Hussy et al. 2010).

The samples drawn during both research phases may be considered representative of the population of all teachers in Mecklenburg-Western Pomerania, based on general data on teacher demand in the region (MBWK 2015, 22). Furthermore, interviewees selected for the second phase had the same general characteristics as the first-phase questionnaire respondents, since the theoretical sample for the second-phase interviews derived from the socio-demographic data collected during the first phase.

Key characteristics of the respondent pool during both phases of the research were as follows:

- All were employed in the transition system to deliver training programs.
- 50% had a purely academic education, while the other 50% had completed a vocational training program in addition to their academic education.
- All had worked in a vocational school, but their years of experience varied from one year to 39 years.
- The majority of respondents (53 %) were between 45 and 55 years of age.

5 Presentation of selected results

5.1 Impact assessment of the influence of the factors

The questionnaire presented the different challenges that were assessed by the teachers. Since the focus of this paper is on teachers' interactions with the target group of disadvantaged young people, the presentation of the results is reduced to these aspects.

Table 1: **Challenges that teachers face in dealing with disadvantaged young people**

topics aspect	no challenge	little challenge	neutral challenge	some challenge	huge challenge
individual motivation	1,6 %	9,4 %	10,9 %	37,5 %	40,6 %
special behavioral support needs	1,5 %	6,2 %	13,8 %	41,5 %	36,9 %
heterogeneity of the class	7,8 %	4,7 %	18,8 %	32,8 %	35,9 %
inclinations / interests	4,5 %	6,1 %	28,8 %	42,4 %	18,2 %
individual personal obstacles (e.g. family situation)	4,6 %	10,8 %	10,8 %	41,5 %	32,3 %
age	4,7 %	6,3 %	23,4 %	32,8 %	32,8 %
missing/incomplete training maturity	3,1 %	12,5 %	21,9 %	31,3 %	31,3 %
missing / incomplete educational maturity	7,8 %	9,4 %	26,6 %	32,8 %	23,4 %
migration background	15,2 %	15,2 %	27,2 %	28,8 %	19,7 %

The table shows the factors that the teachers mentioned, as well as teachers' views on how big a challenge each factor was in terms of dealing with the target group of disadvantaged young people in the transition system. It can be seen that the first three factors of individual motivation, learners' need for special behavioral support and the heterogeneity of the class were the greatest challenges that the teachers faced. The teachers also found it challenging to include the inclinations and interests of these disadvantaged learners in their teaching and learning processes, as well as to respond to learners' individual personal obstacles and age-

related development issues. Less challenging factors were learners' incomplete educational maturity and migration background.

5.2   Growth in young people's disadvantagement and the tasks required of teachers

The results of the interviews suggest that there has been an increase in recent years in the level of disadvantagement experienced by young people entering the transition system. Not only have the factors listed in Table 1 grown in strength, but the proportion of young people exhibiting these characteristics has also increased. Students entering the transition system now have lower educational attainment levels than before. They also exhibit lower motivation levels and greater propensities towards anti-social behavior than in the past. The variety of personal problems and obstacles affecting young people's educational performance have also grown. On the other hand, interviewees perceived little to no change in the rate of disabilities or impairments among learners. According to the teachers interviewed, there have always been youth in the transition system with learning difficulties or other impairments that have needed additional support to enter the labour market.

The impact of this growth in disadvantagement among learners in the transition system has been an associated increase in young people's feelings of worthlessness and exclusion, and thus a need for teachers to provide reassurance and find ways of making learners feel valued and included. As one teacher interviewed put it: *"Because of these issues, our students are so sensitized. They are used to being excluded and have always been presented as incapable. Therefore it is so important for me to have conversations with students, where I say: "Stop stop… How do you feel? What do you think? And what do you need to feel included?"*

One finding that became clear from the interview results was the diversity of tasks that TVET teachers now have to engage in to support learners in overcoming their challenges in order to integrate into society as well as the labour market. Consultations between learners and teachers now go beyond discussing career choices and also center on pupils' personal problems. Teachers' roles are now part-educational and part-therapeutic. Interviewees described their role as *"contact persons and half psychologists"* engaging in *"...social work, psychological support, life counseling, i.e. relationship work"*.

Yet while counselling, as well as education, is now counted among the tasks that teachers must perform, psychological or therapeutic content is not included in the pedagogical training that TVET teachers receive. Instead, teachers must perform these tasks based on their lay knowledge or intuition. Furthermore, all of the teachers interviewed stated that the task of teaching takes up little space compared to the spectrum of other tasks they are now expected to undertake, but for which they receive little to no training. To fulfil their new and evolving role in supporting disadvantaged youth, TVET teachers need to develop attitudes such as flexibility, patience and openness – competencies that can only be developed through practical internships or preparatory service, rather than through training in educational theory.

5.3   Selected action strategies

Given the lack of training available to TVET teachers to help them fulfil their role in supporting disadvantaged young people in the transition system, interviewees were asked how they proceeded in such situations. Their responses suggest that teachers' action strategies varied, depending on what specific challenges their pupils were experiencing. The problems that interviewees said they encountered the most were *lack of motivation*, *special behavioral support needs* and *psychological problems*.

To counter the issue of lack of motivation, the action strategies that interviewees said they have employed may be divided into three broad categories:

- *focusing learners' attention on the achievement of their goals*, such as obtaining a school leaving certificate, gaining admission to a training program, or fulfilling their career aspirations
- *engaging with students personally* to assess their areas of difficulty and adapt training contents accordingly, link teaching material to their interests, or use appealing media and methods to communicate course contents
- *motivating students through praise and encouragement* to reward them for making an effort and to help them reflect on and appreciate what they have accomplished.

The action strategies that teachers used to deal with students' behavioral issues included:

- *activating school disciplinary measures and sanctions* – for example, by excluding students from classes in cases of conspicuous behavior or making it clear to students that their behavior has consequences
- *providing individual support* through diagnostic work to find the causes of students' behavioural issues and through putting them in touch with professionals (such as socio-educational personnel) who can help them overcome those issues
- *setting boundaries* by outlining rules and procedures to students or by jointly creating rules with students

In all cases, disciplinary measures and sanctions were used as a last resort, when all other measures failed to work.

Where students exhibited psychological problems, the action strategies that interviewees employed included:

- confidentially speaking to students in the case of suspected mental illness
- consulting with colleagues to develop strategies for addressing the issue
- regularly monitoring the situation to determine next steps

In all of the above scenarios, the action strategies employed by teachers included personal relationship work to diagnose learners' issues and research, planning and consultation work to develop concrete measures for addressing them.

5.4 Skills and training needed to deal with the target group

Interviewees were also asked what skills and attributes teachers need to deal effectively with the target group. Their responses can be grouped into the following categories:

- *Personal motivation and commitment to the teaching profession* were listed as general skills that all teachers in vocational schools should have, along with the ability to communicate scientific content effectively to students in the transition system using a variety of methods. One interviewee made this point clearly: *"The first thing a teacher should bring along is the desire, yes. I would like to become a teacher, I would like to become a teacher, {... }, that is point number one. Point number two is that after the teacher training you have to learn to break down what you have learned in a highly scientific way to a student level. {...} And humanity. {...} Consistent action, (...) yes. Much with understanding, but on the other hand also working with demands, yes".*

- *Personal and social skills,* such as empathy, tolerance and patience, were cited as vital, as was the ability to engage with this heterogeneous and challenging group of learners (see Figure 1). For the target group, teachers' personal qualities and attention have an enormous influence on their performance. Yet interviewees claimed to have not been taught personal and social skills in their pre-service training programs, but instead to have developed these skills through formal or informal further education. The ability to work in teams with colleagues as well as to engage in self-reflection were also cited as important skills for developing strategies to deal with disadvantaged learners.

Figure 1:   Personal skills needed by teachers to deal with the target group

- *Professional skills,* that is, vocational, methodological and didactical competencies. Interviewees pointed out that teachers also need training in diagnostics to be able to assess learners' issues and respond to them appropriately.

Along with the question of what competencies teachers require, interviewees were asked how these skills could be developed and whether they should be developed before teachers begin their professional practice. Responses fell into three broad categories.

- Some interviewees felt that teachers should develop these competencies through practical experience in a vocational school environment. From their first year of teacher training, teachers should engage in practical activities that make them question their career choice and that build their capabilities for transferring theory into practice. In addition, all practical activities should be accompanied to guide future teachers.
- Some interviewees felt that these competencies should be developed outside of formal education, through part-time work or voluntary activities. They recommended that prospective teachers should, for example, teach groups of young people in holiday camps or support young people with their homework. Practical experience in socially deprived areas was seen as particularly helpful, since it allows teachers to become acquainted with the target group and their home environment.
- Some interviewees felt that the curricula used in teacher training programs should be reformed, so that they develop teachers' competencies in areas such as conflict resolution, educational psychology, special education, and strategies for dealing with learners' behavioral problems.

The research findings reported in this paper are in line with those in other studies. For example, a systematic literature review to investigate what competencies TVET teachers need in the context of Industry 4.0 found that not only technical skills, but also non-technical and personal skills, are important (Jafar et al. 2020). Likewise, research from Malaysia concluded that empathy in TVET lecturers promotes healthy lecturer-student relationships, which in turn has a positive impact on student learning and achievement (Dahri, Yusof, & Chinedu 2018). Several studies have highlighted the important role that good teacher preparation plays in providing teachers with the personal skills needed to meet the needs of disadvantaged students, as well as in instilling a positive attitude towards inclusion in teachers (Bouton 2016; Jahn, Driebe, Götzl, & Burda-Zoyke 2019). Finally, a study conducted by the German Federal Institute for Vocational Education and Training (BIBB) on the skills needed by TVET staff working in the transition system found that pedagogical professionalism, a positive attitude towards disadvantaged students, and the ability to work in multi-professional teams were key success factors (Bylinski 2015).

6   Conclusion and recommendations for action

This study aimed to identify the challenges TVET teachers face in teaching disadvantaged learners in Germany's transition system, as well as the strategies that teachers employ, and

thus the competencies they require, to deal with these challenges. The research findings show that there has been a growth in both the frequency and the severity of different forms of disadvantagement among young people in the transition system. The most important competencies that TVET teachers need to support this target group are pedagogical skills. However, personal and social skills, as well as a high degree of self-reflection, are also increasingly relevant. Teachers have developed various action strategies for dealing with the challenges of supporting disadvantaged learners, but do not currently receive targeted training to assist them in fulfilling their role. Yet the interview results show that the personal skills and professional commitment required of teachers in the transition system go far beyond the field of activity required by regular teachers teaching non-disadvantaged learners.

Based on these findings, it is possible to provide recommendations for reforming teacher training programs in Mecklenburg-Vorpommern to integrate the skills identified into each phase of TVET teacher education. Looking at the first phase of teacher training (see Figure 2), several elements (shown in red) may be added to the current components of TVET teacher training programs in Mecklenburg-Western Pomerania (shown in blue) to better support teachers to deal with the challenges of teaching disadvantaged learners. Recommended reforms to the first phase of teacher training include:

- Encouraging trainee teachers to test themselves and their skills, and thus check the suitability of their career choice and their commitment to the teaching profession, using the CCT (Career Counselling for Teachers) procedure already used in teacher training courses. Other devices, such as the aptitude internship that exists in other federal states, could be introduced nationwide and also used to assess trainees' skills and capabilities.
- Extending the theoretical training curricula to include modules on the transition system, special education, psychology and diagnostics.
- Expanding practical training components during the first phase to include a practical semester, as has already been introduced in other German states, during which trainees take on voluntary internships or part-time jobs, especially concerning disadcantaged young people.
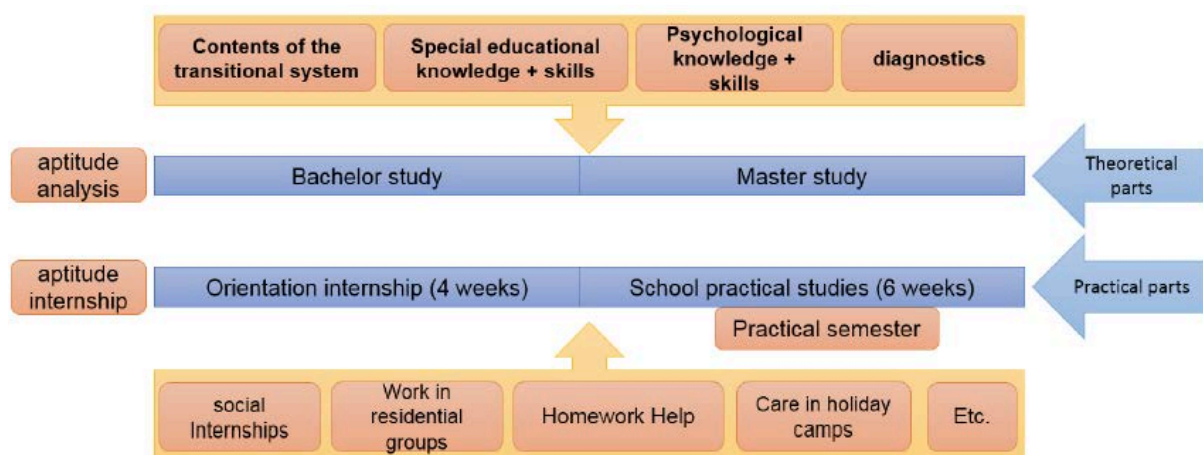
Recommended reforms to the second phase (see Figure 3) include:

- Having trainee teachers engage in practical activities to deepen their knowledge and understanding of the theoretical concepts learned during the first phase.
- Providing structured opportunities for trainees to test their action strategies for dealing with the challenges of disadvantaged learners, as well as to develop further knowledge through study seminars.
- Supporting teachers to develop their professional action strategies through increased exchanges, collegial consultations and personal coaching/mentoring.
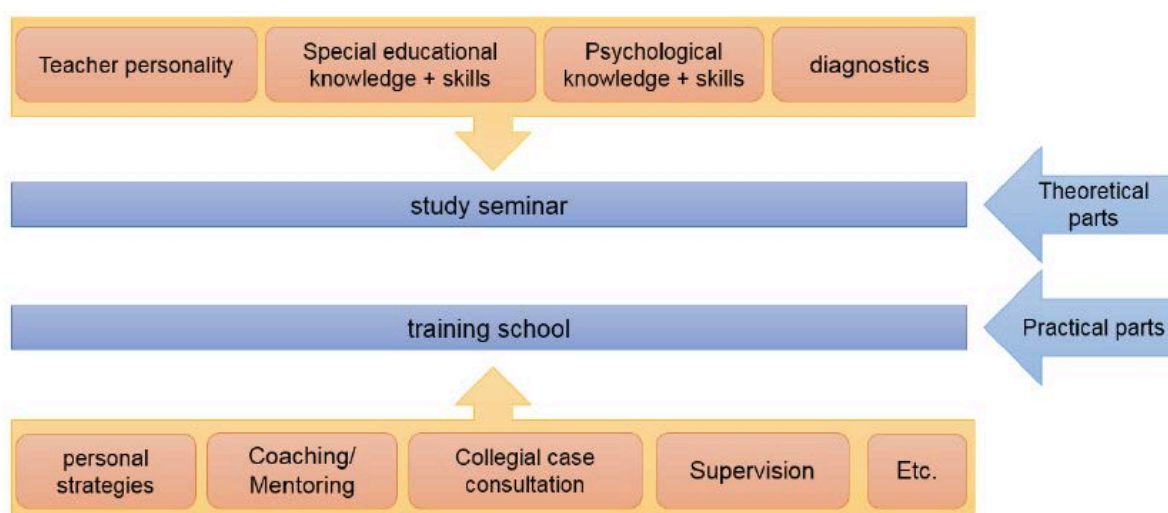
Figure 3: Existing and possible elements to be added in the second phase of the teacher training

At this point, it should be mentioned that an increase in the number of personnel required to supervise prospective teachers during the first and second phases will be necessary for the success of the reformed teacher training programs. After all, the tasks of joint reflection and collegial consultation cannot take place 'on the side', but will require separate time allocation. This is the only way to ensure that the quality of training is maintained through cooperation between newcomers and professionally experienced colleagues.

The third phase of teacher training (in-service training and continuing professional development) should also be adapted in view of the research findings. However, since no empirical statements on the actual process of teacher training in the transition system are available from the interviews, Figure 4 – which illustrates recommended reforms to the third phase – differs from Figures 2 and 3 corresponding to the first two phases.
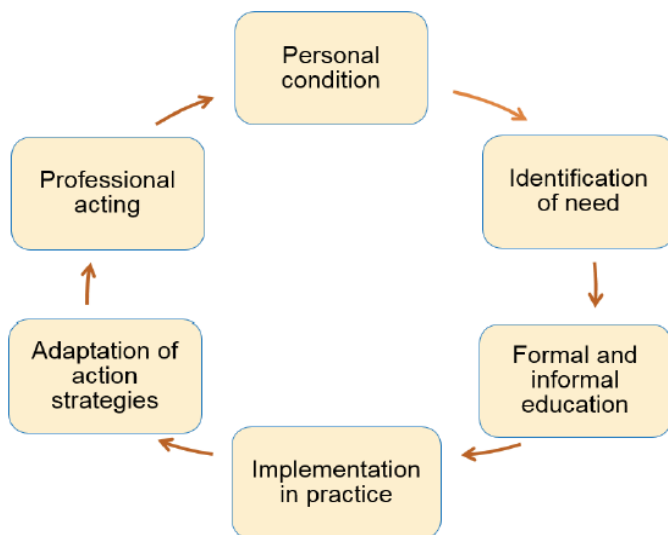
Figure 4:   Possible elements within the third phase of the teacher training

The specific components and design of training during the third phase should be agreed by the organizing institution and the teachers themselves. Once training needs have been identified, training should take the form of not only formal provision, but also informal training in the form of collegial exchanges, teacher self-study of technical literature and mentoring arrangements. Similar to the first two phases, accompaniment to develop teachers' professional competencies, as well as to aid them in implementing action strategies and then to refine them following a period of self-reflection, makes sense. The development here is circular and always goes back to the personal condition of the teacher, which includes personal/private changes in addition to the acquired knowledge.

The recommendations made in this section are reflective of actions applied in other contexts – such as the University of Münster project on "Dealing with Diversity, competent handling of heterogeneity through reflected practical experience" – to reform teacher training programs to build teachers' competencies in dealing with diversity and disadvantage (Bylinski, Heinrichs, Niethammer & Weyland 2018). The University of Münster project was carried out with the aim of training teachers to promote inclusion and used video analyses (multimedia tools) to prepare teachers for their practical work. Training curricula included modules on legal rights, inclusive didactics and diagnostics. This is just one example of how new challenges can be addressed through adjusting the contents and methods of teacher training.

Looking at the statements of interviewees involved in this research study as well as the findings of other studies, it becomes clear how important it is to continuously develop and adapt TVET teacher training programs to address new challenges in an ever-evolving social and economic environment. Above all, the informally acquired knowledge and professional activities already being put into practice should be used to generate ideas for reforming TVET teacher training.

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