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The article corresponds to the English language version (postprint) of the following publication:

Zischke, Frank Eike & Manzel, Sabine (2020). Herausforderung inklusive Lehrer*innenbildung im Fach Sozialwissenschaften: Über die (Un)Möglichkeit von Wissensitems zu Inklusion im Fach Politik/SoWi. In *k:ON - Kölner Online Journal für Lehrer*innenbildung, Nr. 2 2/2020*, 94–107. https://doi.org/10.18716/ojs/kON/2020.2.05 (CC BY-SA 4.0 de).

The Challenge of Inclusive Teacher Training in the Subject of Social Sciences: On the (Im)Possibility of Designing Knowledge Items Regarding Inclusion in the Subjects of Politics and Social Sciences

Abstract:

The project *Professional Knowledge in Social Sciences* embedded within the *ProViel* programme[1] funded by the German Federal Ministry of Education and Research addresses a research gap in the development of an instrument for testing knowledge about inclusion in the subjects of politics and social sciences. The pilot study ($N = 86$ students) shows that subject-related knowledge about inclusion is closely linked to subject-specific knowledge itself and does not form a scale of its own. Knowledge measurement will be the next step for further studies.

Keywords:

Inclusion, political didactics, teacher education, test development, assessment of inclusion competency

[1] The project *Professionalisierung für Vielfalt* (*ProViel*) (Professionalisation for Diversity) at the University of Duisburg-Essen is funded by the Federal Ministry of Education and Research (FKZ 01 JA 1610) in the context of the initiative 'Campaign for Quality in Teacher Education' conducted jointly by the German federal and state governments.

1. Theoretical Background

1.1 Inclusion and the Challenges of Teacher Education in the Subjects of Politics and Social Sciences

The topic of inclusion is currently the subject of extensive and controversial discussion in the field of political didactics. The focus of discussion is frequently on (political) education in school as well as necessary changes to the first and second phases of teacher education programmes (see Besand & Jugel, 2105a, 2015b; Massing, 2015; Thorweger, 2019). In contrast, less attention is being paid to teachers' actual knowledge about inclusion. Before discussing the content of subject-specific knowledge about inclusion in the context of teacher education, we will first outline the understanding of inclusion that is the basis for this paper. This is particularly relevant because there is currently no commonly recognised definition which is clear and consistent and which does not contradict itself (see Grosche, 2015, p. 20). In addition, Wocken (2010, p. 205) posits that scientific discussion is a long way off achieving a unified and commonly accepted understanding of the concept of inclusion, which means that presently inclusion can be interpreted in different ways and with a different focus depending on the context (see Abels & Schütz, 2016, p. 426). Different definitions of the concept of inclusion combine different expectations of teachers and trainee teachers with the implementation of inclusive teaching.

Inclusion is often defined as being distinct from the concepts of exclusion, separation, and particularly integration. These concepts are most commonly represented using a stage model, which conveys the impression that each stage is a developmental phase following a chronological progression which will culminate in integration as the most advanced stage (see Wocken, 2010, p. 216; for a critique of this model, see e.g. Besand & Jugel, 2015a, pp. 48–51). While children or pupils with disabilities are assigned a special status of being different (Wocken, 2010, p. 217) in the early stages of the model, this attribution is overcome in the inclusion phase, in which diversity is considered normal. In contrast to integration, inclusion is defined as a more far-reaching or extended type of integration (see Werning, 2010, p. 284). However, sometimes the terms are used synonymously. The diverse definitions and interpretations of the concept of inclusion can be partially resolved using either a narrow or a broad concept of inclusion (see Löser & Werning, 2015, p. 17; Werning, 2014, pp. 602–603):

1. Individuals with disabilities or impairments are educated together with non-disabled individuals. While this understanding of inclusion is directly linked to the United Nations Convention on the Rights of Persons with Disabilities, it continues to divide individuals into two incompatible groups: individuals without disabilities and individuals with disabilities. If the term inclusion is used in this sense, it is a narrow concept which is synonymous with the common understanding of integration.

2. In accordance with the views of the United Nations Educational, Scientific and Cultural Organization (UNESCO), inclusion is interpreted to mean joint lessons in inclusive schools that cater for all pupils. Used in this manner, the term encapsulates a broad concept of inclusion (Jordan & Becker, 2019, p. 154).

A narrow concept of inclusion makes it impossible to distinguish inclusion from the common understanding of integration because a narrow use of the term continues to describe multiple groups that seem to be incompatible. Such an interpretation does not go beyond the integration phase and does not, therefore, describe an extended type of integration. A narrow understanding of inclusion should thus be considered synonymous with integration. Further, a narrow view of inclusion will not contribute to achieving the stated goal of political education, which is to promote the development of political maturity in all pupils (Weißeno, 2015, p. 79). For this reason, the authors of this paper adopt a broad understanding of the concept of inclusion. Based on the definition offered by UNESCO this means that all individuals must have equal access to opportunities for participating in a high standard of education and for developing their potential, irrespective of special educational needs, gender, or socioeconomic background (Deutsche UNESCO-Kommission, 2014, p. 9). This understanding highlights that inclusion cannot be defined solely according to the categories of *special educational needs* or *disability* versus *no special educational needs* or *no disability*. In addition, Besand and Jugel (2015b) call for a departure from 'classic' differentiators (gender, place of birth, social status, etc.) in order to consider new parameters of exclusion such as power and communication and to incorporate them in lesson design (see pp. 106–107). Having discussed the term of inclusion and its different interpretations, we will now turn our attention to the resulting challenges in teacher education.

The need to implement inclusive education poses additional challenges for teachers and trainee teachers. In order to meet these challenges, they require professional competences relating to inclusion. In the joint recommendation *Lehrerbildung für eine Schule der Vielfalt* (Teacher Education for the Diverse School), the Standing Conference of the Ministers of Education and Cultural Affairs (*Kultusministerkonferenz,* KMK) and the German Rectors' Conference (*Hochschulrektorenkonferenz*, HRK) state that teachers must acquire basic competences to enable them to design inclusive lessons and inclusive schools (2015, p. 3). Additionally, the teaching of such basic competences during the first phase of teacher education is positioned as a cross-functional responsibility of educational science, subject science, and subject didactics. The KMK (2017) accordingly extended the subject-specific competency profiles and the curricula of teacher education programmes for individual subjects. Thus the subject didactics for social sciences, politics, and economics are tasked with teaching fundamental competences for dealing with heterogeneity and inclusion in lessons (p. 60).

However, no subject-specific inclusion competences that should be taught are identified. It is further unclear how basic competences and basic knowledge about inclusion can be adequately integrated into the model of techers' professional competence (Baumert & Kunter, 2006) or the model of professional competence of teachers of political education (*PKP* model, see Weschenfelder, 2014). From our perspective, the areas of subject knowledge and subject-didactic knowledge are central in this regard. We will turn our attention to this issue next while also attempting to identify subject knowledge about inclusion in the models introduced above.

1.2 Knowledge About Inclusion in the Model of teachers' Professional Competence

The model of teachers' professional competence (see Baumert & Kunter, 2006) which is widely used and received in empirical research on educational science distinguishes three types of professional knowledge: subject knowledge, subject-didactic knowledge, and pedagogical knowledge. This 'triad' of knowledge is based in particular on the work of Shulman (1987, 1986) and corresponds to the scientific sections of teacher education programmes (subject science, subject didactics, and educational science; see König, Gerhard, Melzer, Rühl, Zenner & Kaspar, 2017, p. 223). In addition, Baumert and Kunter introduce the areas of organisational and consulting knowledge. Professional competence further encompasses motivational orientation, attitudes/value systems, and self-regulating abilities.

In the context of the research project 'professional competence of teachers of political education' (*Professionelle Kompetenz von Politiklehrkräften, PKP* model), Weschenfelder (2014) conceptualised for the first time a subject-specific model of professional competence in political didactics which was based on the generic, non-specific model of teachers' professional competences. Weschenfelder's model enhances the generic areas and dimensions of teacher competences by specifying subject-specific contents. In order to identify subject-specific basic knowledge about inclusion in the *PKP* model, aspects of subject-related professional knowledge, i.e. subject knowledge and subject-didactic knowledge, are of particular interest. In line with the view that the teaching of subject-specific knowledge about inclusion is a cross-functional responsibility that transcends the boundaries of subject science and subject didactics, both areas must be considered when formulating concrete knowledge components. Due to the special differentiation of the teacher education programme for social sciences in North Rhine-Westphalia, basic knowledge about inclusion must be taught in all three subject areas (sociology, economics, and political science) and their corresponding didactics.

Contrary to the arguments presented by König, Gerhard, Kaspar, and Melzer (2019), which place specific knowledge about inclusive teaching solely at the level of subject didactics and pedagogical knowledge or knowledge of educational sciences (see p. 49), we will directly incorporate subject-specific knowledge about inclusion because of the close links with normative political goals (UNESCO goals for inclusion). The definition of subject-specific knowledge about inclusion must therefore consider individual subject domains as well as political didactics. This aspect highlights the difficulties and challenges of developing an adequate test instrument for measuring subject-specific knowledge about inclusion. For example, from the perspective of political science, 'inclusion' can be regarded as a political object which can be discussed along the three traditional lines of analysis. The tripartite concept of politics hails back to American political science and distinguishes the following three dimensions (Zeuner, 1999, p. 179–180): politics (the political process and struggle for power); policy (the objectives of politics and their implementation by the state); and polity (order, laws, constitutions). This makes it possible to conceptualise the UNESCO goals for inclusion along the *policy* dimension; the debate between different actors about actual implementation in the school system along

the *politics* dimension; and the regulations on implementing special pedagogical support in schools along the *polity* dimension. In the latter case, for example, regulations might specify how 'knowledge about inclusion' could be incorporated into concrete subject content for teacher education programmes.

Until now, the field of political didactics, unlike the field of general didactics, has not developed a test instrument which can measure subject-specific basic knowledge about inclusion in the social sciences. This applies to measuring such knowledge in both the first and second phases of teacher education in the social sciences. For this reason, the next section presents an existing test instrument which measures *professional* knowledge in the social sciences. Using this instrument as a starting point, we will then propose expanding the tool with inclusion-specific knowledge items.

1.3 *ProViel* Test for Measuring Professional Knowledge in the Social Sciences

Based on the model of professional competence and the model of the professional knowledge of (politics) teachers (Baumert & Kunter, 2006; Weschenfelder, 2014), a standardised test instrument for measuring professional knowledge in the social sciences was developed at the University of Duisburg-Essen (Gronostay & Manzel, 2019; for the theoretical background of the instrument and first empirical results, see also Manzel & Gronostay, 2018). This test instrument was developed through the project *Professional Knowledge in the Social Sciences,* which forms part of the project 'Professionalisation for Diversity', (*Professionalisierung für Vielfalt,* short *ProViel)* conducted and funded by the Federal Ministry of Education at the University of Duisburg-Essen (first phase: 2016 to 2019) in the context of the initiative 'Campaign for Quality in Teacher Education'. The test instrument is specifically aligned with the curricula and module text books of the teacher education programme for social sciences. This means that the knowledge test includes content from political sciences, sociology, economics, and the didactics for social sciences (at the University of Duisburg-Essen and the Technical University Dortmund). Subject knowledge in the three domains and subject-didactic knowledge had to be empirically modelled as discrete constructs (see Weschenfelder, Weißeno & Oberle, 2014). For the first time, this test instrument makes it possible to capture systematically and empirically the professional knowledge of trainee teachers across the entire spectrum of the social science curriculum.

The test instruments has been used regularly since the summer term of 2018 via a self-assessment survey completed by student teachers. The students receive ungraded feedback regarding their individual test results. In addition, the results are used to identify requirements for action with regard to trainee teachers' progress and to provide evidence to inform the further development of teacher education programmes in the field of social sciences (see Dezernat Hochschulentwicklungsplanung UDE, 2020, p. 4).

The next section sets out the central objectives of this paper in the context of existing research in the field of political didactics.

2. Research Goals

The current debate regarding the presence of inclusion as a component of teacher education programmes highlights the necessity of targeted research projects. To date, no empirical data is available regarding the inclusion-specific education of trainee politics teachers. It is further unclear what subject knowledge and what subject-didactic knowledge about inclusion teachers should possess. So far, this has not been clearly defined (see Abels & Schütz, 2016).

One of the objectives of this paper is therefore to define the concrete subject knowledge and subject-didactic knowledge about inclusion that students in teacher education programmes for the social sciences should acquire. The proposed inclusion contents will then be used to develop subject-specific knowledge items regarding inclusion which will serve to expand the previously mentioned *ProViel* knowledge test. The original test instrument provides a good starting point to this end. The last step of our analysis will seek to undertake an initial validation of the newly developed inclusion knowledge items via a pilot study.

Developing concrete subject-specific and didactic inclusion contents as well as inclusion-specific test items contributes to reducing the research gap regarding the specific inclusion knowledge that trainee teachers require. Moreover, once the contents and test items are in place, they will serve to generate empirical data about student teachers' existing levels of inclusion knowledge. In this way, we aim to derive initial empirical indications from the pilot study. Using a valid and reliable test instrument as the basis for this study ensures that its results can be meaningfully connected to existing research.

3. Method

3.1 Data Collection and Sample

Data was collected in the summer semester of 2020 in the context of the routine student self-assessments of their professional knowledge in the subject of social sciences, which the University of Duisburg-Essen carries out each term (*ProViel* project, UDE). The newly developed inclusion-focused items were incorporated into the original test, and the complete test included 51 knowledge items[2]. Two different versions of the questionnaire were used which each included the same *anchor* items (multiple matrix sampling design). As teaching in the summer semester of 2020 was largely delivered online[3], the survey was digitalised using the *LimeSurvey* tool and conducted online. The survey link and a request for participation were shared with students in the digital learning environments of the seminars on didactics for social sciences. This ensured that the participating students were at minimum in the fifth semester of their bachelor's programme or already

[2] This paper will not report results regarding the knowledge of the participating students. Instead, the focus is on testing the test instrument itself and the knowledge items it contains.

[3] This was due to the Coronavirus pandemic. The summer semester of 2020 was conducted exclusively online at both participating universities in North Rhine-Westphalia.

working on their master's phase and therefore had some (basic) knowledge of subject didactics. No time limit was set for completing the survey. The survey was conducted simultaneously in teacher education programmes for social sciences at the Technical University of Dortmund and at the Essen campus of the University of Duisburg-Essen, and it included students training for mainstream secondary education in all school types (academic track[4], grammar schools and comprehensive schools = 76.2 per cent; general secondary schools[5] = 23.8 per cent) but not students training for special schools. 15 per cent of respondents were enrolled in the bachelor's phase and 85 per cent in the master's phase of the programme at the time of completing the survey. In total, N = 86 students (female: N = 48; male: N = 35; other or no response: N = 3) completed the survey. 81 responses were valid for the inclusion-focused knowledge items. The digital design of the survey did not allow non-responses for any of the knowledge items, thereby eliminating the *missing data* problem in data analysis. Due to the survey conditions, this is an ad-hoc sample based on voluntary participation. Given the size and ad-hoc nature of the sample, it is not possible to make statistically reliable inferences based on the results obtained. Data was collected anonymously and does not allow conclusions to be drawn about individuals.

3.2 Test Instrument

The survey tool was developed in accordance with the theoretical explanations set out previously. It was critical to include subject-specific and didactic reference points in the knowledge items on inclusion; in other words, the test had to capture both inclusion-focused subject knowledge and inclusion-focused subject-didactic knowledge. The knowledge items being developed had to cover politics and sociology as well as subject didactics and were categorised accordingly. Furthermore, the items had been developed according to the assumptions of the model of professional competence. As the knowledge items on inclusion were intended to expand the existing test for measuring the professional knowledge of trainee politics teachers, the items were designed using the same answer format (single answer with four answer choices).

Difficulties with the design of the inclusion-focused items presented themselves in particular with regard to differentiating the content of the inclusion items from the content of items relating to general didactics and educational science. This was due to the content overlap between these disciplines. For this reason, the primary goal was to identify factual knowledge about inclusion using the following key questions: Which topics and contents focus specifically on conceptual subject knowledge and subject-specific didactic knowledge about inclusion? How can knowledge items on inclusion be developed specifically for the subject of political didactics?

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4 The academic track is the highest form of secondary school education in Germany and prepares students for their university entrance qualification.

5 The non-academic general tracks of secondary school education in Germany prepare students for a general school leaving certificate.

In order to overcome these challenges in item development, the *quality development and assurance* project team within the *ProViel* project organised a symposium titled *Inclusion-Focused Competences of (Trainee) Teachers* at the Essen campus in early 2020. The goal of the symposium was to facilitate an exchange of views between the *ProViel* universities and various departments of subject didactics and educational sciences at other universities. The insights gained from the symposium were considered in the design of the items alongside subject-didactic theory. Additionally, a further symposium was hosted with experts in the field of the didactics of general science at primary school as well as with experts in the didactics for social sciences and natural sciences. The symposium also saw an initial validation of the content of the newly designed items by these experts.

A total of eleven new items were created and integrated into the original *ProViel* test instrument for the pilot study. The content of each item could be clearly assigned to the subject domains of either politics or sociology or the subject didactics for social sciences in both survey locations. The focus on political and sociological knowledge about inclusion arose from the intrinsic links between inclusion and the disciplines themselves. No items were developed for the field of economics. Table 1 shows three example items, one each regarding political knowledge about inclusion, subject-didactic knowledge about inclusion, and sociological knowledge about inclusion.

Item code and content area	Example item (knowledge about inclusion)	Answer
IK 1 (politics)	UNESCO advocates a broad understanding of inclusion. This understanding also includes pupils…	…with and without disabilities.
IK 6 (subject didactics)	The use of which concept is controversial in inclusive political education?	simplified language
IK 10 (sociology)	Which term does not describe a concept of difference?	real difference

Table 1: Example items for measuring subject-specific knowledge about inclusion

The next section describes the results of the analysis of the inclusion items in the pilot study. First, the results of the analysis of all inclusion items used in the pilot study are presented. This includes the classic item difficulty of the individual items. Furthermore, a Rasch scaling of the items functioning as an 'inclusion scale' is performed using the *ConQuest 4.14.2* software (Adams, Wu & Wilson, 2015). In a final step, selected inclusion items are assigned to the existing subject-specific knowledge scales for politics and sociology and to the subject-didactics scale; using the totality of scales, a further Rasch scaling is performed.

4. Results of the Pilot Study

The item difficulty of the used items varies considerably. The goal is to achieve an item difficulty between $10 \leq P_i \leq 90$. The higher the value P_i, the easier an item is. In other words, the higher the difficulty index of an item, the higher the probability of solution for the item. A single item (IK10—Sociology) shows a P_i value of 7.41 and thus its item difficulty is too high. Two further items show a probability of solution that lies below the 25 per cent limit of the probability of guessing correctly. In order to consider the effect of guessing when calculating the item difficulty, a random-corrected probability of solution P_{ZK} is calculated for each item. The same range of validity applies as before (see Kelava & Moosbrugger, 2012; Rost, 2004). Four of the eleven inclusion items show a probability of solution that is too low, with values of $P_{ZK} < 10$.

In addition to item difficulty, the following characteristic parameters are critical for the fit and thus the quality of the items and the overall scale. The weighted mean square (wMNSQ) should be around *1* for a good item fit, and the associated *t* values should not be significant, i.e. $t < 1.96$ (or $-1.96 < t$). All inclusion items in the pilot study have wMNSQ values of $.99 < \text{wMNSQ} < 1.01$, indicating a good fit value. Furthermore, none of the *t* values are significant. While the *t* value can therefore be considered Rasch compliant for the *inclusion scale*, item discrimination (R_{it}) is too low across all items. Item discrimination should be above .25 to be considered acceptable. However, in the overall analysis, the value range of the items in the pilot study is only $-.14 < R_{it} < .15$. For example, item IK1 (politics) shows an item discrimination of .12 and is thus clearly below the targeted lower limit. Overall, none of the items in the pilot study show an acceptable item discrimination. The *EAP/PV reliability* of the overall scale also shows an unacceptable value of .08. For a minimum sufficient reliability of the scale, the EAP/PV reliability value should be > .5. This clearly shows that the tested items do not represent an independent *inclusion scale*. This is consistent with the preliminary theoretical considerations that in terms of their content, the items concerning inclusion-related knowledge can be assigned to the respective subject areas. This is explained further in the next section.

The difficulty of formulating subject-specific items regarding a basic knowledge of inclusion already manifested itself during the symposium conducted with the departments of subject didactics and educational sciences at other universities, and the difficulty transcends subject boundaries. Even in advance of the pilot study, the content of the designed items could be assigned both to the social sciences (i.e. politics and sociology) and to subject didactics. Based on the design of item content, it was possible to posit that the items themselves would not be suitable to function as an independent scale. This hypothesis is clearly confirmed by the results presented here. It therefore seems more realistic to expect that the inclusion items can be integrated into the existing subject-knowledge scales and the subject-didactics scale of the *ProViel* test. The calculations to test this hypothesis are performed in a further step. The eleven inclusion items designed for the pilot study can be assigned to the different knowledge areas as follows and are scaled accordingly: six items are assigned to subject didactics (*FD scale*), three items to sociology (*Soz scale*) and two items to politics (*Pol scale*). Based on the

analyses carried out for each scale, individual items were eliminated and excluded from further analysis due to poor fit values (item discrimination R_{it}, probabilistic item difficulty σ, *wMNSQ*). One inclusion item was retained for the political knowledge scale. With a total of 17 knowledge items (including the single inclusion item that could be retained), the *Pol scale* has an overall EAP/PV reliability value of .583. The *Soz scale* (19 items, two of which regard inclusion) shows a similar reliability value of .595. Both scales are therefore sufficiently reliable and can be meaningfully supplemented with individual inclusion items. In contrast, the subject-didactics scale (*FD scale* with 19 items, three of which regard inclusion) only achieves an EAP/PV reliability of .481. Its reliability can be discussed on the basis of the given sample.

5. Discussion, Limitations, and Further Considerations

The pilot study discussed here, which was carried out in the context of the *ProViel* project, represents a first attempt at developing a valid test instrument for measuring the knowledge about inclusion in the subjects of politics and social sciences. Against the backdrop of growing levels of inclusion content in teacher education programmes and the relevance in scientific discussion, there is an urgent requirement for more research in this field. At the same time, the present analysis contributes to generating necessary empirical material. Specifically, the goal was to expand the original *ProViel* knowledge test and the existing, valid, and reliable knowledge scales (in politics, sociology, and subject didactics) with items about inclusion knowledge.

The preparation and planning phases of the study revealed significant difficulties in identifying concrete subject-specific and didactics-focused knowledge regarding inclusion. Only an unsatisfactory distinction could be achieved between inclusion knowledge and content relating to educational science. This can be attributed to a lack of theoretical modelling of basic subject knowledge about inclusion in the field of political didactics as well as a lack of inclusion-focused learning contents in the module text books for the teacher education programmes at the two universities participating in the pilot study. Consequently, it was not possible to conduct a satisfactory validation of the content of the inclusion knowledge items developed for the pilot study. The results support the hypothesis that it is not possible to design specific and discrete knowledge items about inclusion for the subjects of politics and social sciences. The *inclusion scale* cannot be statistically mapped for these subjects. The results of the pilot study further support the hypothesis that knowledge about inclusion in these subjects cannot be separated from the content of the related knowledge disciplines and subject didactics. Rather, it can be assumed that knowledge about inclusion is closely related to relevant subject knowledge. It would seem, therefore, that inclusion-focused learning contents are intrinsically linked to the relevant disciplines of the subject. An expansion of the original *ProViel* knowledge scales for politics and sociology can be plausibly justified based on the statistical explanations in this paper. With an EAP/PV reliability score of .583 (politics) and .595 (sociology), the scales show sufficiently high values. An expansion of the existing test

instrument for relevant inclusion-focused items has therefore been achieved for the subjects of politics and sociology.

This cannot, however, be confirmed for the *FD scale*. This is a good place for discussing the limitations of the analysis. The fact that reliability scores are lower may be attributed to several factors, notably the method of selecting the sample (ad-hoc random) as well as the size of the sample (N = 81 valid responses). While there are indeed 81 responses for each of the inclusion items in the pilot study, the result is different for individual knowledge items from the existing item pool for politics, sociology, and subject didactics owing to the use of two different versions of the survey. Here, only the *anchor* items used in both versions of the survey generated the maximum possible number of valid responses. For the subject of politics, three items generated the maximum number of responses, and in sociology and subject didactics four items each. The use of different survey versions as well as survey design itself should be re-evaluated for future research, particularly given the limited sample size achieved in this pilot study. Furthermore, it is possible that there is a certain amount of survey fatigue among students enrolled in the teacher education programmes for social sciences at the two universities participating in the pilot study. The *ProViel* knowledge test is carried out in regular intervals, which means that the students at the University of Duisburg-Essen, for example, are surveyed twice during the master's phase of their teacher education programme. This factor can have a negative impact on willingness to participate and lead to smaller sample sizes. Additionally, the fact that data collection in the summer semester of 2020 had to be conducted exclusively through an online survey might have had a negative impact on the sample. In previous semesters, the test was carried out on campus during regularly scheduled seminars. This enabled lecturers to increase students' motivation to participate by explaining the content and purpose of the survey accurately.

Future use of the expanded *ProViel* test instrument incorporating the inclusion-oriented knowledge items should focus on several aspects. Of the eleven newly developed items, only six could be kept after statistical analysis (one for politics, two for sociology, and three for subject didactics). An expansion of the item pool would therefore seem necessary. Additionally, generating larger sample sizes is urgently required to achieve reliable results regarding the validity of the expanded knowledge scales. Furthermore, given the available sample, it was decided not to analyse possible location-related differences. The validity of the test should ideally be verified with surveys drawing on sufficiently large samples from different universities offering a teacher education programme in social sciences. Future research should also consider the phase of the teacher education programme which participants have attained at the time of participating in the survey. The type of school form (academic track versus general secondary education) which the students are preparing to teach may also be impacting results.

In sum, the present study represents a significant first step towards empirically measuring the inclusion-related knowledge of trainee politics and social sciences teachers via a test instrument that incorporates inclusion-focused content and towards enabling evidence-based statements. Empirical research on inclusion-focused content in

the field of political didactics is in its infancy and requires significant research efforts in the future. One goal of this paper is therefore to encourage further analytical efforts among the scientific community in order to contribute to the future development of evidence-based research in this field.

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DOI: 10.17185/duepublico/73991
URN: urn:nbn:de:hbz:464-20210129-113849-6