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Measuring social competencies in the teaching profession – development of a self-assessment procedure

Abstract

Since teachers spend several hours a day in interactions with other people, it seems plausible to assume that their social competencies are a vital foundation for their professional success. Thus, it makes sense to put special emphasis on such competencies in the context of career counseling/occupational orientation, teachers' training and education as well as personnel selection procedures at schools. Hence instruments are required to measure job-relevant social competencies. Subsequently, we will describe the development and validation of a self-perception questionnaire to measure social competencies of teachers. It was designed as a self-assessment procedure and it informs on 10 job-relevant competencies. The main application areas lie in occupational orientation as well as in self-reflection during university studies. Further application areas will be discussed.

Keywords

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Messung sozialer Kompetenzen im Lehrberuf – Entwicklung eines Self-Assessments

Zusammenfassung

Da Lehrkräfte täglich mehrere Stunden in Interaktionen mit anderen Menschen verbringen, erscheint es plausibel, dass ihre sozialen Kompetenzen eine zentrale Grundlage des beruflichen Erfolgs darstellen. Insofern ist es sinnvoll den sozialen Kompetenzen im Rahmen der Berufsberatung/Berufsorientierung, der Aus- und Weiterbildung von Lehrkräften sowie der Personalauswahl an Schulen besondere Aufmerksamkeit zu schenken. Hierzu wiederum benötigt man Messinstrumente, mit deren Hilfe berufsrelevante sozialer Kompetenzen erfasst werden können. Nachfolgend berichten wir von der Entwicklung und Validierung eines Fragebogens zur Messung sozialer Kompetenzen im Lehrerberuf. Das Verfahren wurde als Self-Assessment konzipiert und gibt Aufschluss über 10 berufsrelevante Kompetenzen. Das primäre Einsatzgebiet liegt in der Berufsorientierung sowie der Selbstreflexion im Studium. Weitere Einsatzbereiche werden diskutiert.

Schlagworte

Soziale Kompetenz; Diagnostik; Lehrkräfte

1. Introduction

It is very rare that teachers in Germany reach regular retirement age since they often have to retire early due to psychosomatic illnesses; they suffer from burnout to a particularly large extent (Schaarschmidt, 2004a, 2004b). Teachers obviously have to face notably stressful conditions in their everyday working life and a number of them are unable to permanently cope with them. Some of these stresses are social ones, and they result from direct interaction between students and teachers. Therefore, teachers' social competencies are likely to be a vital resource with regard to stress coping behavior.

Furthermore, a study by Kanning, Bergmann, Eble, and Gärtner (2009) shows that teachers' social competencies account for 42 % of the students' satisfaction variance with regard to students' perception. The total of all the other influencing factors examined in the study (framework/environment, expertise, methodology, diagnostic competency and commitment) merely explain 14 % of the satisfaction variance.

Thus, it makes sense to introduce suitable measures prior to commencement of professional and vocational education and training that will help to assess individuals with respect to their psychological suitability as well as their social competencies in order to increase the probability for such individuals to be able to work in the difficult teaching profession permanently and in good health. A wrong career choice will not only be disastrous for those choosing it. As far as the teaching

profession is concerned, one must also think of the students suffering considerably from dissatisfied teachers with ill-health and thus from reduced learning and achievement opportunities. Such measures may also be justified economically when calculating the costs for professional education and training as well as early retirement.

This is where our new diagnostic instrument to measure job-relevant competencies for the teaching profession comes in. It was developed as a self-assessment questionnaire, and it is to help respective individuals to reflect their own (primarily social) competencies regarding the teaching profession, to identify strengths and weaknesses and, if necessary, to initiate measures in order to compensate such weaknesses. In German, our questionnaire is called "*Feedback-Inventar zur berufsbezogenen Erstorientierung für Lehramtsstudierende*"; the abbreviation is FIBEL (Böttcher, Kanning, Herrmann, & Brinkmann, 2007). FIBEL is particularly aimed at students in the higher grades of secondary schools (high schools) and at university/college students who are thinking about taking up a teaching career or who have already commenced with their studies. The data presented in this paper has been published in the test manual (Kanning, Herrmann, & Böttcher, 2011).

1.1 Theoretical background

The main objective of the FIBEL questionnaire is measuring social competencies. However, this is a rather diffusely defined multidimensional construct. Different definitions of this construct focus mainly on two basic aspects. On the one hand, social competencies enable an acting individual to accomplish his/her own goals in a social context (Hinsch & Pfingsten, 2002; Waters & Sroufe, 1983), and on the other hand, they form the basis for an individual's ability to integrate into a social community (DuBois & Felner, 1996; Waters & Sroufe, 1983). Thus, social competencies are an important foundation for peaceful interpersonal interactions during which the individual's interests will not fall by the wayside (Döpfner, Schlüter, & Rey, 1981). Following the definition of competency by Ford (1985), social competencies are a vital potential to solve socially problematic situations. Hence, a higher degree of social competencies will increase the probability for an individual to be able to solve, e.g., interpersonal conflicts in a constructive manner.

Apart from the social competencies construct, research has come up with a number of related constructs with a similar meaning (Rose-Krasnor, 1997): social intelligence (Thorndike, 1920; Sternberg, 1985), emotional intelligence (Salovey & Mayer, 1990), social skills (Argyle, 1969; Riggio, 1986), interpersonal competence (Buhrmester, 1996). Due to diffuse definitions, they are either entirely congruent or, to a large extent, overlapping. We will use social competencies as a superordinate term (see also Kanning, 2002).

So far, there have been very few findings as to which singular competencies fall under the superordinate construct of social competencies. Different models emphasize different competencies (e.g., Argyle, 1969; Buhrmester, 1996; Caldarella &

Merrell, 1997; Goldfried & D'Zurilla, 1969; Riggio, 1986). A content analysis of existing models by Kanning (2009a) results in 17 primary social competencies, which can be summarized by means of factor analysis into four secondary factors: social orientation, dynamic and proactive behavior, self-controlling, and reflexibility.

Such competency models have also resulted in a number of measuring instruments (e.g., Buhrmester, Fuhrman, Wittenberg, & Reis, 1988; Kanning, 2009a; Riggio, 1986). They all have in common that they measure social competencies solely on a highly abstract level. Therefore, they have a fairly wide application range, but they lack specific context relation. It is likely that measuring instruments referring to a specific social context from the outset are more significant since they measure only competencies relevant for this specific context – albeit on a lower abstraction level. These reflections encompass the conviction that it does actually make sense to distinguish between general and specific social competencies (Kanning, 2005; Reschke, 1995). The idea behind the FIBEL procedure development subsequently described is to achieve just that as far as the teaching profession is concerned.

2. Method

The development of FIBEL follows the principles of classical test theory (e.g., Lienert & Raatz, 1998). Since there is no solid theory of social competencies in the teaching profession, we used an explorative approach. In a *first step*, a workshop with 10 teachers from three different types of schools and with different hierarchical positions was organized in order to identify the most important competencies for the teaching profession. The group consisted of highly respected teachers with successful teaching careers. A requirement analysis according to Flanagan's Critical Incident Technique (Flanagan, 1954) was carried out: Each participant of the workshop generated success-critical situations from everyday working life in a one-to-one interview and subsequently described good or bad behavior, which might be shown by a teacher in such situations. All behavior descriptions were later discussed in the plenum and were qualitatively grouped with the result of obtaining 10 competency dimensions to be measured by means of FIBEL: organizational skills, perception complexity, ability to work under pressure, innovation motivation, self-expression, self-assuredness, assertiveness, willingness to cooperate, prosociality, readiness to educate (definitions see Table 3). With the exception of organizational skills, ability to work under pressure, innovation motivation and self-assuredness, they are all competencies within the construct range of social competencies in the narrower sense of the term (see Kanning 2005).

In a *second step*, items were devised to register the competency dimensions and were subsequently integrated into reliable scales in the course of an empirical study (two studies). During the process, the items were drastically reduced (see Table 2). Items have the form of statements (see Table 2) and are answered by

means of a six-step agreement scale (1 = "I do not agree at all" to 6 = "I agree entirely").

Step three served to validate the measuring instrument by means of four studies.

In *step four*, two further studies were carried out to standardize the entire procedure. One study comprises a large sample of individuals studying in various courses to become teachers, and the second one comprises a sample of teachers.

Table 1 gives an overview of the samples. All individuals took part in the studies voluntarily. All the data was collected anonymously. With regard to the sample of students, standardization was achieved by means of a computer-aided version of the questionnaire. The students, prospective teachers at the University of Münster, were randomly selected; the teacher sample was generated by writing to more than 50 schools all over Germany.

Table 1: Samples

Sample number	1	2	3	4	5	6	7	8
Objective	Scale analysis	Calculation of retest reliability	Validation	Validation	Validation	Validation	Standardization	Standardization
Size	244	42	120	134	355	209	2688	477
Persons	Students (prospective teachers)	Students (prospective teachers)	Students (prospective teachers)	Students (prospective teachers)	Teachers	Teachers	Students (prospective teachers)	Teachers
Age	Undocumented	19−27 22.7	19−28 21.9	19−28 22.1	23−66 44.5	24−64 46.5	18−34 23.4	23−65 45.3
Gender	26.6 % m 67.2 % f 6.1 % not specified	14.3 % m 85.7 % f	19.2 % m 65.0 % f 15.8 % not specified	23.9 % m 55.2 % f 20.9 % not specified	26.5 % m 65.9 % f 7.6 % not specified	19.6 % m 74.6 % f 5.7 % not specified	26.6 % m 73.4 % f	25.4 % m 74.6 % f

3. Results

3.1 Scale analysis and reliability

In its initial version, the questionnaire comprised 221 items, which could be reduced to 98 in the course of scale analysis (see Table 2). Item reduction was effected on the basis of the usual criteria according to classical test theory requirements (e.g., Lienert & Raatz, 1998). Items with too high or too low item difficulty ($P < .20$ or $< .80$ respectively), too low selectivity ($< .35$) or too low a loading on the respective factor of the factor analysis ($< .40$) were dropped. Retest reliability was collected over a period of 14 to 18 weeks. All results were satisfactory. They are within the

standardization sample and always above a value of .70 with regard to the verification of retest reliability.

There are correlations between the 10 scales resulting in three higher-order competence areas with a second order factor analysis (exploratory factor analysis, varimax rotation; see Table 3). Factor 1 comprises scales with regard to peaceful and fair interaction in the classroom. One exception is the scale innovation motivation, which does not necessarily become noticeable in interaction behavior. However, it has the lowest scale loading on this factor. Factor 2 represents competencies ensuring the capacity to act within a school context. Finally, the third and last factor unifies two scales which are likely to have a positive effect on intentional control of social processes at the school. Both self-expression and assertiveness will make it easier for the teacher to lead a group of students.

Table 2:   Characteristics of scales

Scale / Item with highest loading (Number of items after scale analysis)	Factor loading of item (sample 1)	Reliability in sample 1		Reliability in sample 7		Retest reliability (sample 2)
		Cronbach's alpha	split-half	Cronbach's alpha	split-half	
Organizational skills / "Many people say I'm a structured person." (9)	.80	.78	.78	.83	.80	.92
Perception complexity / "I'm good at predicting how someone will behave in a certain situation." (9)	.73	.78	.78	.84	.81	.80
Ability to work under pressure / "When I know I've got several more things to do during the day I feel stressed out." (8)	.75	.69	.68	.76	.74	.84
Innovation motivation / "I like trying out new things." (8)	.80	.74	.66	.77	.74	.85
Self-expression / "I like being in the center of attention." (8)	.78	.77	.75	.82	.82	.92
Self-assuredness / "Whenever I resolve to do something I manage to reach my goal." (9)	.71	.68	.73	.83	.87	.81
Assertiveness / "I can assert my own opinion against opposition." (8)	.73	.72	.68	.83	.81	.85
Willingness to cooperate / "I enjoy working in a team." (12)	.77	.76	.74	.83	.83	.80
Prosociality / "I always have an open ear when people I know come to me with their problems." (13)	.69	.82	.73	.85	.81	.93
Readiness to educate / "A teacher should also pay attention to the formation of students' social skills." (14)	.74	.85	.81	.87	.88	.93

Table 3:   Definition of scales and second order factor analysis (sample 7)

Scale	Definition	Loading of scales on second order factors		
		1	2	3
	Eigenvalue	4.61	1.43	1.02
Prosociality	Ability to put oneself in others' shoes, to comprehend their behavior and their problems, and to get involved with others with a view to integrative and social cooperation.	.89	.06	.11
Readiness to educate	Readiness to train and educate students as well as to support their development and education against the background of society's requirements with the objective of achieving an individual sense of responsibility.	.80	.07	.18
Willingness to cooperate	Willingness to cooperate with others and the ability to do so.	.75	.34	.02
Perception complexity	Ability to observe interpersonal and intrapersonal relations and relationship structures in a differentiated manner as well as to use this information to predict behavior and to avert conflicts.	.57	.35	.44
Innovation motivation	Motivation to try out new opportunities or possibilities to act and shape things in order to contribute to improvements; one important characteristic is the readiness to accept proposals by others.	.53	.48	.28
Ability to work under pressure	Ability to work continuously and steadily while coping with varied tasks and requirements without subjectively perceived pressure.	-.03	.82	.24
Self-assuredness	Extent of trust in one's own capacity to act, in the influencability of activity results and thus the accompanying goal achievement satisfaction.	.27	.76	.38
Organizational skills	Ability to reliably structure and organize everyday life including activities, tasks, appointments etc.	.32	.65	-.04
Self-expression	Ability to stage oneself as a person in the attention of others as open, spontaneous, funny and quick-witted without ignoring one's own opinion.	.13	.10	.89
Assertiveness	Ability to assert one's own opinion and interests against resistance and opposition without infringing on the social acceptance of others with regard to the behavior.	.15	.25	.86

3.2 Validity

Studies were carried out to ascertain construct and criterion validity. Construct validity scrutinizes the contents of a measuring instrument. Thereby, one is interested in convergent as well as discriminating validity. *Convergent validity* refers to the question to what extent there are positive correlations between the new measuring instrument and procedures with similar or covarying criteria. *Discriminating validity*, on the other hand, refers to the verification of negative correlations as well as the lack of them where they might be expected. In the case of discriminating validity, we expect a negative or zero correlation between FIBEL

scales on the one hand and neuroticism and confrontation tendency on the other. An exeption will be a positive correlation between assertiveness and confrontation tendency. Refering to convergent validity we predominantly expect positive correlations between FIBEL-scales and generally accepted personality traits. Table 4 shows results as to both validity types. Personality traits are one prerequisite for the development of social competencies. This is why we used personality questionnaires to validate our findings. Firstly, the correlation between the FIBEL scales and the so-called "Big Five" was examined – operationalized by means of NEO-FFI (Borkenau & Ostendorf, 2008). Secondly, the correlation to the scales of the German KSE questionnaire regarding attitudes towards schooling and education "Konstanzer Fragebogen für Schul- und Erziehungseinstellungen" (KSE) (Koch, Cloetta, & Müller-Fohrbrodt, 1972) was examined as well.

It shows that almost all FIBEL scales correlate significantly with extraversion. This certainly is a positive result since extraversion undoubtedly constitutes an important personality orientation for the teaching profession. There are similar results with regard to the dimensions openness, conscientiousness and tolerance, where in each case the majority of the FIBEL scales show a positive correlation. As might be expected, there are contrary results as to neuroticism with either negative or non-significant correlations.

The correlations between FIBEL and the four personality scales in the a.m. KSE questionnaire (Koch et al., 1972) are comparatively plausible. Most scales show a significantly positive correlation with assertiveness, which is a vital competence teachers ought to have as well. The non-significant correlation between willingness to cooperate and assertiveness is interesting though. Obviously, the kind of ability to cooperate measured by means of FIBEL does not seem to conflict with assertiveness since otherwise, there would have been a negative correlation. On the other hand, a positive correlation to the considerateness scale can be documented. The positive correlation with confrontation tendency, however, shows that assertiveness is not always unproblematic. All other FIBEL scales show negative correlations to confrontation tendency though, which underlines the discriminating validity of the scales.

Table 4: Results with regard to testing convergent and discriminating validity (correlations)

	NEO-FFI (sample 3)					KSE (sample 4)			
	Neuro-ticism	Extra-version	Open-ness	Conscien-tiousness	Agree-able-ness	Asser-tion	Self-asser-tion	Confron-tation tendency	Con-siderate-ness
Organizational skills	-.08	.16	.09	.77**	.22*	.35**	.08	-.08	.02
Perception complexity	-.11	.30**	.31**	.21*	.13	.52**	.03	-.07	.19
Ability to work under pressure	-.46**	.42**	.17	.10	.14	.10	.12	-.43**	-.18
Innovation motivation	-.14	.37**	.35**	.09	.35**	.18	.29**	-.20	.26*
Self-expression	-.21*	.43**	.20*	.07	.03	.39**	.50**	-.26*	.05
Self-assuredness	-.50**	.30**	.14	.36**	.29**	.24*	.10	-.18	.04
Assertiveness	-.15	.33**	.31**	.00	.01	.50**	.35**	.33**	.04
Willingness to cooperate	-.03	.46**	.24**	.23*	.50**	.12	.10	-.23*	.23*
Prosociality	.12	.56**	.25**	.25**	.45**	.23*	.11	-.28*	.37**
Readiness to educate	.00	.42**	.27**	.27**	.39**	.22*	.01	-.31**	.31**

$* p < .05, ** p < .01.$

In terms of *criterion validity*, we can analyze the question to what extent FIBEL results correlate with job-relevant criteria. The criteria are found outside the personality and reflect professional behavior and experience. This fact ought to be borne in mind when interpreting correlation strength. When looking at the criterion professional efficiency, e.g., a high correlation cannot really be expected since efficiency naturally depends on a number of different factors (working conditions, leadership behavior of supervisors, remuneration etc.). We analyzed the correlation between the FIBEL scales on the one hand and the self-assessed job performance as well as various scales to measure physical and psychological health (MBI-D, Barth, 1985) on the other (Table 5).

Considering the multiple correlations, there seems to be quite a considerable relation between FIBEL and the self-assessed job performance at the workplace. Apart from willingness to cooperate, all correlations of the individual FIBEL scales are significantly positive. It seems that FIBEL can measure personal traits relevant for performance in the teaching profession.

We have similar results when different health-related criteria such as exhaustion, perceived performance decrease or burnout are used as validating criteria. There are numerous statistical correlations to the FIBEL scales. Obviously, a high scale value correlates with lower values in burnout experience, dehumanization, ex-

haustion, stress and medical condition. Dehumanization means, in this context, a defense strategy employed in order to cope with stress (Barth, 1985): Individuals react negatively, indifferently and cynically to feelings and requests expressed by other people. In contrast, positive relations between FIBEL and the subjective performance experience of interviewed teachers can be detected. Furthermore, it is interesting to see that there are two slightly positive correlations between FIBEL scales and the experience of a medical condition. They indicate that high prosociality and readiness to educate might have negative effects, if the individual feels others ask too much of her/him. These correlations, however, are merely marginal.

Table 5: Results with regard to testing criterion validity (correlations)

	Free assessment[a] (sample 5)	MBI-D (sample 6)					
	job performance	burnout	personal efficiency	dehumanization	emotional exhaustion	subjective stress	medical condition
Organizational skills	.16**	-.19**	.26**	-.06	-.14	-.01	.05
Perception complexity	.28**	-.30**	.51**	-.21**	-.10	-.03	-.00
Ability to work under pressure	.15**	-.51**	.50**	-.23**	-.48**	-.33**	-.48**
Innovation motivation	.21**	-.29**	.39**	-.17*	-.18**	-.08	-.05
Self-expression	.25**	-.23**	.31**	-.12	-.18*	-.19**	-.11
Self-assuredness	.19**	-.51**	.57**	-.27**	-.40**	-.23**	-.17*
Assertiveness	.23**	-.27**	.40**	-.15*	-.16*	-.15*	-.06
Willingness to cooperate	.03	-.26**	.20**	-.25**	-.16*	.07	-.05
Prosociality	.12*	-.23**	.28**	-.32**	-.02	.16*	.18*
Readiness to educate	.11*	-.13	.21**	-.16*	.00	.11	.17*
Multiple correlation	.40**	.63**	.67**	.45**	.55**	.40**	.56**

[a] "How much (in %) of what you are able to do when working at a maximum level do you actually do during your working day?" (ten-step scale: 0–10 %, 11–20 % etc. to 91–100 %).
* $p < .05$, ** $p < .01$.

Apart from correlations as to job-related criteria, the criterion validity of a procedure may also be assessed via judgments by experienced professional experts. Therefore, 355 teachers (sample 5) from different types of schools were asked how important they thought the competencies measured by means of FIBEL were with regard to successfully coping with everyday working life. The instrument was a six-step assessment scale. Perceived importance increases in relation to the scale level. Table 6 shows the mean values and standard deviations for all scales. Invariably,

all the values can be found within the top third of the assessment scale. More than half the scales even reach values within the top fifth of the assessment scale. These results indicate that FIBEL, without exception, measures characteristics regarded as very important by individuals working as professional teachers.

Table 6:   Perceived significance of scales for professional success from teachers' viewpoint

	Mean value	Standard deviation
Organizational skills	5.42	0.72
Perception complexity	5.47	0.67
Ability to work under pressure	5.34	0.83
Innovation motivation	4.89	0.83
Self-expression	4.23	1.17
Self-assuredness	5.02	0.81
Assertiveness	4.81	1.03
Willingness to cooperate	5.08	0.95
Prosociality	5.04	0.97
Readiness to educate	5.45	0.76

Note. Sample 5, six-step assessment scale from 1–6.

3.3 Standardization

Standardization offers users the possibility to evaluate own results in comparison with a large sample of individuals. FIBEL allows for the comparison with almost 2,700 students of different teachers training college courses as well as the comparison with almost 480 teachers. The feedback offers a perception of how the participant is placed in relation to these groups.

In both cases, separate standards for men and women are offered since the respective sub-samples showed significant differences. Looking at the effect sizes, however, it is obvious that there are only minor differences, which are not likely to have any practical relevance (Eta² .003–.06). Therefore, it would also be legitimate to ignore gender-specific standardization entirely when employing the procedure.

FIBEL offers three different kinds of standardization: standard values, stanines and percentiles. The latter are likely to be the easiest as far as an interpretation by laypersons is concerned. However, the two former are more significant since they reflect (normal) data distribution. In case of extreme divergence between personal results and the norm groups (lower percentile 15 or higher than 85), we propose that the students get in contact with the students counseling service.

4. Discussion

FIBEL is an instrument to measure miscellaneous competencies with regard to the teaching profession. FIBEL is an instrument to get information on social competencies by means of self-perception, which is mainstream in the social sciences. Competence-related self-perception is an indicator of social competencies, but not identical with actual behavior (Kunter & Klusmann, 2010). In a number of studies, it has proved to be sufficiently reliable and valid. The main focus of the procedure is to measure social competencies. Due to the fact that competency dimensions were deduced from a requirement analysis developed with teachers, a solid foundation was laid for a procedure that can really depict job-relevant competencies. The results as to the verification of criterion validity show that the goal has been achieved.

The primary application area is self-assessment. Students at schools and colleges are given a diagnostic instrument that will help them to question their own social competencies with regard to the teaching profession. Thus, FIBEL can be employed prior to selecting the respective university courses whilst still at high school, but also during subsequent university studies. It is to encourage students to deal with their competencies and the requirements of the teaching profession.

FIBEL is neither a procedure to select applicants for a place at university nor does it provide an explicit recommendation for or against taking up studies to become a teacher. Such a decision is far too complex to be made solely on the basis of a single questionnaire. However, the procedure allows for a systematic self-assessment that may serve as a foundation for differentiated talks during career consultation. Furthermore, the procedure can point out possible deficits in relevant areas of competency that might be compensated by means of specific training courses.

In our study we rely on self-descpriptions. We are aware that this causes some methodological limitations. First of all, we are confronted with the problem of social desirability. Secondly, it is obvious that self-description of competencies or self-perceptions of professional success are not identical to actual behavior. This is indeed a general problem in this field of research as it is extremely complicated to generate behavioral data.

Apart from research, there might be two further possible application areas for the instrument: training and further education of teachers, e.g., during student teaching, and the selection of teachers at schools.

During vocational training and education, this procedure might be used as a requirement analysis. Students, student teachers or fully-qualified working teachers fill out the questionnaire for self-description prior to developing a profile of their strengths and weaknesses via standardization. Subsequently, compensation strategies as to potential weaknesses are reflected upon. Naturally, this will be more or less difficult depending on the respective areas of competency. The capacity to organize, e.g., could be increased by relatively simple behavioral rules whereas prosociality is more a basic character trait and hence very difficult to alter with increas-

ing age. At present, FIBEL cannot make any statements as to which value of a specific criterion might be regarded as "critical", in which case further education or training should be urgently recommended. It is certainly questionable if such a statement covering all possible professional settings involved in the teaching profession can be made at all. Ultimately, it will be important to interpret the results individually against the background of (anticipated) professional circumstances in situ.

If FIBEL is to be used for personnel selection, two restrictions must be considered: Firstly, one can only measure the individual's self-perception. It is not known to what extent self-perception deviates from reality. Therefore, FIBEL ought to be used merely as one element in a far more complex selection procedure, in which, e.g., self-perception is contrasted with perception of the respective individual by others – assessed via work samples etc. Secondly, in personnel selection procedures, there is the danger that results might be distorted in terms of socially desired responses. With regard to the mean value, with large samples of applicants, such a potentially validity-decreasing effect is basically negligible (Ones & Viswesvaran, 1998), but it might nevertheless be the basis for a wrong decision in a concrete selection decision. This effect could be reduced by using control scales (e.g., Kanning, 2011).

With regard to a further development of the FIBEL procedure, differential validity testing for different types of schools seems to be a good idea. Results might show that individual competencies are more significant for certain types of schools than for others. In order to test this, additional studies with significantly larger samples of teachers are required. Moreover, it seems to make sense to expand FIBEL to include an additional module measuring perception by others. Thus, self-perception could be contrasted with perception by others, which might be particularly beneficial in training and (further) education.

Basically, it might be worth expanding the area of diagnostic methods aimed at measuring social competencies in the teaching profession beyond the use of questionnaires (see Arnold, Lindner-Müller, & Riemann, 2012; Kanning 2009b). Methods to observe behavior and to test performance are conceivable in this context. A combination of various methods would help to compensate specific weaknesses so that a comprehensive and strongly scientifically supported picture of job-specific social competencies could eventually emerge.

Future studies should also test the prognostic validity of the instruments that are being used. On the basis of this knowledge, we could give a more precise feedback to the students and enhance the usefulness of our self-assessment instrument.

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