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Teachers' Diagnostic Competence in the Context of Gender and Migration Related Stereotyping

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Abstract
This study examines the influence of pupil and teacher characteristics on the diagnostic competence of teachers in the context of educational disadvantage in Germany. Congruent with the stereotype threat theory, it is expected that female gender and migration background will have a detrimental effect on the teacher assessment and that these persons will therefore be wrongly negatively judged. On the teacher side, it is investigated how gender and work experience influence the diagnostic competence. A total of six 11th grade classes (N = 156) were assessed by 18 teachers. The results show that, contrary to the expectations and independent of teacher variables, female pupils are more correctly and better assessed than male pupils. However, only experienced teachers were able to assess persons with a migration background without being influenced by them. There is thus an increased need to sensitize teachers to the impartial assessment of people with a migration background.

Keywords: Diagnostic competence, learning behaviour, migration, gender, stereotype

Introduction

School education is of considerable importance to learners as it not only provides them with knowledge, but also the skills and competences they need throughout their lives. However, it is not only the pupils, the school and the curricula but above all the teacher's personality who contributes to the success of good teaching and sustainable education. In addition to specialist knowledge and didactic skills of teachers, diagnostic competence is of decisive importance (Aufschnaiter et al., 2015, Baumert & Kunter, 2006). The situation became very relevant after the unexpected bad performance of Germany in the PISA study compared with other countries. Hence, the need for discussion arose on the quality of the German education system and supporting teachers to promote their pupils.

Particularly after this so-called "PISA shock" (Helmke, Hosenfeld & Schrader, 2004; Klieme et al., 2010) the aspect of diagnostic competence is becoming more and more important, as it seems that teacher beginners were not able to register their pupils

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individually and differentiated enough. It seems that in recent years there has been an increasing focus on the cognitive aspects of learners (Lorenz, 2011), but it is equally important to correctly assess the personal and inter-disciplinary abilities of pupils, as these are of considerable importance for learning success, although their diagnosis in university and school-based teacher training has only been accentuated in a secondary way over the past decades (Brunner, Anders, Hachfeld & Kraus 2011). Such non-cognitive factors are, for example, work and social behaviour. The significance of these characteristics and the problems associated with the recording of these so-called soft factors were explicitly highlighted in the assessment and formation of the top notes (Petermann & Petermann, 2013).

The Standing Conference of Ministers of Education and Cultural Affairs regularly establishes the "Competences and Standards for Teacher Education" (KMK, 2014). In addition to the core tasks of teaching and education, the "assessment and counselling task", for example, is also shown as an essential core competence for which "high pedagogical-psychological and diagnostic competences [...] are required" (p. 3). It is explicitly stated that teachers diagnose learning prerequisites of learners and use this as a "basis for planning their lessons, advising, challenging and promoting learners" (p. 11). At this point it becomes clear that not only the determination of academic performance is central, but also the diagnosis of personal competences and thus certain personality facets - which are relevant for school-based learning - should be given considerable importance. This is due to the fact that these competences, e. g. the subcategories of self-reflexivity, independence and learning behaviour, are essential basics and influencing factors for academic, vocational and social success (MSW 2015; MSW, 2017).

Therefore, it is of interest to investigate the quality of the diagnosis of personal competences and which variables can influence the diagnostic competence of teachers. This includes formal training and qualification, individual motivation and self-reflexivity as well as knowledge and the development of one's own diagnostic competence (Wolgast, 2013; Klug, Bruder & Schmitz, 2016; Südkamp, Kaiser & Möller, 2017; Karing & Seidel, 2017; Glogger-Frey & Renkel, 2017; Praetorius, & Südkamp, 2017). People with a high level of diagnostic knowledge seem to have better diagnostic competence than those who have not learned this in terms of content and methodology. Similarly, professional experience is associated with higher diagnostic competence (Hascher, 2008). However, the implicative influences and interactions of social-psychological effects in groups have received little attention. According to the stereotypical threat-theory, for example, people belonging to their own group (including gender and ethnicity) become more positive, while those belonging to another group are assessed more negatively (Riek, Mania & Gärtner, 2006; Shapiro, Aronson & McGlone, 2016). In particular, women seem to be misjudged and underestimated by men in terms of their performance and disposition (Becker & Sibley, 2016; Gruber, 2017). Spencer,

Steele and Quinn (1999) were able to prove that this effect can also be transferred to the school context, e. g. in male maths teachers who did not rate the female pupils as well as male. This plays a colossal role, especially in view of the fact that migration and educational disparities are on the rise (Breidebach, 2012; 2013); and since a different ethnicity is already regarded as a concern in children (Levy & Hughes, 2009). However, the primary focus is on singular phenomena such as errors of judgement, errors in the perception of people or the significance of selected facets of the person to be judged (Hesse & Latzko, 2017; Spinath, 2005). It is equally important to investigate which interdependencies exist within this reciprocal structure of action - especially with regard to the characteristics of the assessor and the person to be assessed. Stereotyping as an expression of classification and bias towards certain individuals and groups of persons (Stangor, 2016, p. 3) implies the concept of stigmas, which is to be described as "a relationship between the two sides of the coin" and a stereotype. Stigmas are used to label personal characteristics. Because of this, the person concerned is associated with undesirable character traits (Schmidt-Ott, Gissendanner & Böhm, 2014, p. 1630).

The aim of the present study is to examine in the cultural system of Germany to what extent the assessments of different teachers in a class - that assess their pupils with regard to their learning behaviour - are consistent and which factors influence the process are relevant to the pupil and teacher biographies. Pupils with migration background are expected to be assessed as worse learners than those without a migration background (migration-stigma) and female pupils are to be assessed worse than male pupils (gender-stigma). This stigmatization is, however, related to teacher variables as follows, whereby it is not only limited to differences in the mean value of the assessment of the variables to be considered, but also focuses on differences in the validity of the recorded characteristics:

- Is migration or gender-specific stigmatization related to the teacher's professional experience?
  It is expected that for teachers with higher professional experience stereotypes will have no influence on their diagnostic competence, i. e. less influence on females or migrants (Hascher, 2008). Therefore, the difference should only be visible in novices, but not in experienced teachers.
  - Hypothesis 1: It is assumed for both novice and experienced teachers beginners and professionals that there is no difference of migrants and non-migrants at overall score level (hypothesis 1a) and valid level (hypothesis 1b)
  - Hypothesis 2: It is assumed for both novice and experienced teachers that there is no difference of female and male pupils at overall score level (hypothesis 2a) and valid level (hypothesis 2b)

- Is migration or gender-specific stigmatization related to the gender of the teacher? It is assumed that female teachers have a high level of diagnostic competence in the acquisition of personal competences (Breidebach, 2013; MSW, 2017). Therefore the difference should only be visible in male but not in female teachers.
- Hypothesis 3: It is assumed for female and male pupils that there is no difference of migrants and non-migrants at overall score level (hypothesis 3a) and valid level (hypothesis 3b)
- Hypothesis 4: It is assumed for novice and experienced teachers that there is no difference of female and male pupils at overall score level (hypothesis 4a) and valid level (hypothesis 4b)

Method

Design

The design is a correlation study and descriptive comparison. It was necessary to ensure that every teacher knew the classes for a reasonably long time and had taught them intensively. Therefore, six 11th grades of different vocational colleges were selected, for which it was possible to ensure that every teacher had been employed since the end of the school year and that no one had dropped out of class in the long term, e. g. due to illness or training efforts. It was also important that the teachers trained the pupils with the same four-hour weekly teaching period, so that the assessments were not distorted by overreach due to more intensive or superficial relationships and experiences with the learners. Due to the correlation between grades and work and learning behaviour (Petermann & Petermann, 2013), assessments were made immediately before the Christmas holidays, so that a written performance review had been carried out, but no semi-annual marks had yet been fixed. Each teacher had the opportunity to not only be familiar with the verbal and teaching commitment for a sufficiently long time, but also to gain an insight into the written potential of the individual, regardless of whether the subject taught is more or less written-based. The teachers selected according to the above-mentioned criteria are assessed by the pupils independently of each other on previously agreed dates by means of the LSL. In addition, it was also necessary to indicate the gender of the teacher and how long he or she worked in his or her profession.

Participants

Sample recruitment was carried out ad-hoc at the ZFSL in Duisburg, Germany. 156 pupils (119 female pupils, age 16-25 years, M = 18.20 years, SD = 1.70 years, 83 with migration background) were assessed by 18 teachers (11 female: age 31-53 years, M = 37.27 years, SD = 6.78 years). The teachers were divided into beginners

(< 5 years) and professionals (> 5 years) according to their professional experience. Thus, there were nine beginners (3 male, age: 31-36 years, $M = 33.22$, $SD = 2.04$) and nine experienced professionals (4 male, age: 36-53 years, $M = 41.33$, $SD = 7.51$). The 5-year benchmark was chosen because it covers the entire training and testing phase (referendum and probationary period) after which a teacher enters into a permanent employment relationship and is considered to be professionally experienced and tested in the civil service product and the relevant legislation. The semi-annual marks, which could be obtained with the consent of the pupils, were transmitted by the teachers six weeks after the survey and on the basis of the testimony conferences.

Instruments

In the study we used the Teacher Assessment List for Social and Learning Behaviour (LSL; Petermann & Petermann, 2013). The instrument enables the differentiated detection of the human competence facets mentioned above. In this context, only the sub-dimensions of the learning behaviour were taken into account in accordance with the underlying questions. These are the endurance and effort of a pupil, the ability to concentrate, care and independence in learning, which can be evaluated on a four-point Likert-scale with five items each. Furthermore, the semi-annual (overall mean) grades of the pupils were also noted, as they have been reported to be associated with learning behaviour (Petermann & Petermann, 2013).

Data Analysis

The analysis procedures were carried out using SPSS 24.0. Specifically, a t-test for independent samples was used to compare the mean values of the four scales for male and female teachers as well as for novice and experienced professionals. In addition, a 2x2 ANOVA was used to examine a possible interaction between the respective teacher's demographic variable (sex or work experience) and the pupil's demographic variable (sex or migration). The correlation between the individual variables of learning behaviour and the grade was considered as a measure of diagnostic competence. Here, a comparison was made using Z-transformed correlation comparisons. A post-hoc power analysis using g-power showed that for a mean effect of. 30 a power (1-β) of .96 for the t-tests of .98 for the 2x2 ANOVA of .98 as well as .99 for the correlations and .96 for the correlation comparisons can be achieved.

Results

With regard to the mean values, it is shown that male teachers rate the learning behaviour of female pupils, with the exception of self-employment, higher than that of male pupils (see table 1). Female pupils will have a higher value for effort (M_{Female} = 9.15, $SD_{Female} = 3.10$ $M_{Male} = 7.37$, $SD_{Male} = 2.77$, t (155) = 2.51, $p = .01$, d = .60) und care ($M_{Female} = 9.90$, $SD_{Female} = 3.05$; MMale = 8.00, $SD_{Male} = 3.01$, t (155) = 2.67,

p = .01, d = .63) attributed to them. Those with M = 8.98 (SD = 3.18) tend to have a higher level of concentration than male pupils (M = 7.62, SD = 2.71, t (155) = 1.88, p = .06, d = .50).

Table 1.
Mean Differences (Standard Derivations in Brackets) Between the Scales of the LSL for Female and Male Pupils.

	Beginners				Professionals				TxP	
	Male pupils	Female pupils	*t*	*p*	Male pupils	Female pupils	*t*	*p*	*F*	*p*
E	6.12 (2.80)	7.20 (4.15)	-1.35	.18	8.08 (3.58)	9.21 (3.93)	-1.28	.20	0.01	.94
C	6.31 (2.90)	6.65 (2.90)	-0.45	.65	8.30 (3.62)	9.30 (3.82)	-0.70	.48	0.88	.35
I	6.67 (3.87)	6.43 (4.02)	0.30	.76	8.85 (4.00)	9.36 (3.79)	-0.53	.60	1.06	.30
Ca	5.38 (3.10)	7.29 (4.00)	-2.43	.02	8.80 (3.60)	10.18 (3.44)	-1.61	.11	0.61	.44
	No Migration	Migration	*t*	*p*	No Migration	Migration	*t*	*p*	*F*	*p*
E	7.27 (4.26)	6.61 (3.46)	0.96	.34	9.43 (3.99)	8.42 (3.73)	1.01	.31	0.32	.57
C	7.00 (4.14)	6.13 (3.30)	1.30	.20	9.64 (3.92)	8.45 (3.56)	2.09	.04	0.29	.59
I	7.05 (4.32)	5.92 (3.29)	1.65	.10	10.10 (4.03)	8.34 (3.43)	1.92	.06	1.00	.32
Ca	7.05 (4.07)	6.60 (3.66)	0.66	.51	10.44 (3.45)	9.24 (3.51)	1.31	.19	1.61	.20
	Male teachers				Female teachers				TxP	
	Male pupils	Female pupils	*t*	*p*	Male pupils	Female pupils	*t*	*p*	*F*	*p*
E	7.37 (2.77)	9.15 (3.11)	2.51	.01	8.14 (3.81)	8.51 (3.72)	-0.11	.91	2.60	.11
C	7.62 (2.71)	8.98 (3.19)	1.88	.06	8.23 (3.97)	9.17 (3.98)	-0.57	.57	2.50	.62
I	7.77 (2.81)	8.63 (3.13)	1.21	.23	8.69 (4.02)	7.93 (3.99)	-0.12	.90	0.02	.90
Ca	8.00 (3.01)	9.90 (3.05)	2.67	.01	8.83 (3.77)	9.73 (4.02)	-1.18	.24	1.32	.25
	No Migration	Migration	*t*	*p*	No Migration	Migration	*t*	*p*	*F*	*p*
E	9.76 (3.10)	7.82 (2.86)	3.25	.001	7.91 (3.92)	8.88 (3.53)	-1.10	.27	17.24	.001
C	9.72 (3.02)	7.72 (2.94)	3.36	.001	8.65 (4.31)	9.19 (3.71)	-0.59	.56	14.27	.001
I	9.65 (3.01)	7.35 (2.72)	4.02	.001	8.48 (4.35)	8.52 (3.82)	0.19	.85	9.80	.01
Ca	10.34 (2.97)	8.65 (3.09)	2.78	.01	9.63 (3.92)	9.40 (4.02)	0.18	.86	3.91	.01

Note: E= effort, C = concentration, I = independence, Ca = care, TxS = interaction effect between teacher and pupil variable.

Teachers, on the other hand, value pupils equally in terms of learning behaviour. Similarly, individuals coming from a migration background show similarities to those who do not. Those without a migration background show more effort according to male teachers (M_{NoMig} = 9.76, SD_{NoMig} = 3.10; M_{Mig} = 7.82, SD_{Mig} = 2.86, t (155) = 3.25, p = .001, d = .65) and also more concentration (M_{NoMig} = 9.72, SD_{NoMig} = 3.02; M_{Mig} = 7.72, SD_{Mig} = 2.04). On the other hand, female teachers tend to rate migrants slightly better, so that an interaction between the gender as a teacher characteristic and the migration as a pupil characteristic is always significant (see Table 1).

In contrast, there is no major difference between entry-level and experienced pu-

pils in terms of the stigmatization of learners. Only female pupils (M = 7.29, SD = 4.00) are more careful than female pupils (M = 5.38, SD = 3.10, t (155) = 2.43, p = .02, d = .53). Otherwise, there are no differences in the assessment of pupils and persons with or without a migration background by teachers who start their careers and have professional experience.

Table 2.
Pearson Correlation Coefficients Between the Scales of the LSL and the Semi-Annual Grade for Female and Male Pupils

	Beginners			Professionals		
	Male pupils	Female pupils	*p*	Male pupils	Female pupils	*p*
Effort	-.52**	-.78**	.001	-.49**	-.51**	.81
Concentration	-.55**	-.79**	.001	-.44**	-.45**	.91
Independence	-.55**	-.81**	.001	-.55**	-.45**	.24
Care	-.54**	-.73**	.001	-.50**	-.54**	.63
	No Migration	Migration	*p*	No Migration	Migration	*p*
Effort	-.82**	-.60**	.001	-.52**	-.47**	.56
Concentration	-.79**	-.66**	.01	-.42**	-.45**	.74
Independence	-.82**	-.65**	.00	-.45**	-.48**	.74
Care	-.74**	-.61**	.02	-.57**	-.46**	.18
	Male teachers			Female teachers		
	Male pupils	Female pupils	*p*	Male pupils	Female pupils	*p*
Effort	-.57**	-.67**	.15	-.53**	-.58**	.52
Concentration	-.53**	-.69**	.02	-.51**	-.66**	.04
Independence	-.72**	-.65**	.24	-.61**	-.65**	.56
Care	-.51*	-.60**	.25	-.54**	-.73**	.001
	No Migration	Migration	*p*	No Migration	Migration	*p*
Effort	-.79**	-.43**	.001	-.69**	-.49**	.01
Concentration	-.76**	-.51**	.001	-.73**	-.55**	.01
Independence	-.78**	-.49**	.001	-.70**	-.58**	.07
Care	-.67**	-.44**	.001	-.80**	-.59**	.001

Note: * = p <.05, ** = p <.01, *** = p <.001

In addition, correlations between the learning behaviour variables were compared with the overall grade to examine the accuracy of the teacher's judgement (see table 2). It is shown that the assessed level of concentration of female pupils has a higher influence on the grade (-.69 or -.66) than that of male and female pupils (-.53 or -.51).

In addition, it emerged that the learning behaviour assessed by teachers was more

related to the grades of pupils without a migration background (-.67 to -.79 for teachers and -.69 to -.80 for teachers) than those with a migration background (-.43 to -.51 for teachers and -.49 to -.59) for teachers. Furthermore, it was found that there are differences in the validity of learning behaviour among entrants (see table 2).

This shows that they are more likely to assess the learning behaviour of female pupils (-.73 to -.81) than of pupils (-.52 to -.54) (all *ps* < .001). There was no difference for experienced professionals. The learning behaviour of people without a migration background, assessed by young professionals, also shows clearer correlations with their grades (-.74 to -.82) than those with a migration background (-.60 to -.66 all *ps* < .05).

Discussion

The results of this study suggest that teachers' diagnostic competence in general and educational determinants have an increased need for professionalization and the importance of reflecting on stigmatizing mechanisms, especially in the context of migration and gender-based stigmatization. There were only a few serious differences between young novice teachers and those with work experience in terms of the assessed learning behaviour, but there were nevertheless considerable differences for pupils with a migration background (~hypothesis 1). The learning behaviour estimated did not seem to have been adequately mapped by newcomers compared to teaching professionals, as it is also found in Hascher (2008). Nevertheless, the focus was only on assessing how teachers with more than five years of experience scored the pupils compared to people with less than five years professional experience. It should and must be further investigated whether stereotypes in the first years of the five-year period have a stronger effect than at times when more experience was gained, or whether the judgement becomes more similar and thus even less differentiated with increasing practical experience (Südkamp et al, 2017; Hascher, 2008). Furthermore, it should be assessed how people with more than five years of experience score the pupils, e.g. people with 10 years or 15 years of experience.

The same can be seen in the gender-stigma of female pupils (~hypothesis 2). Contrary to expectations, female pupils are more correctly assessed by novice teachers than those with more experience. This can be due to the fact that female pupils are considered stereotypically less conspicuous than male pupils. In addition, it is generally believed that female learners are more diligent (Spencer et al., 1999; Becker & Sibley, 2016). In this regard, it must be considered more closely whether those behavioural patterns actually lead to better grades or whether behavioural abnormalities again lead to an objective and valid diagnosis in the sense of a spill-over effect and thus distort the true value, or whether they are diagnosed more differentiated at the beginning of the profession (Spinath, 2005). However, it should be noted that both gender and migration stigmas have a significant influence on the diagnostic judgement

of young professionals and thus give an indication that a professional stigmatization could have a negative impact on them (Hascher, 2008, Südkamp et al., 2017). Above all, because the learning behaviour of young people without a migration background is more closely related to the grades than that of learners with a migration background. Perhaps this conclusion could also be taken from the fact that the implicit scheme of teachers could make a contribution to the grading.

Contrary to expectations, there were no gender-specific results with regard to the gender-stigma in such a way that male teachers underestimate female pupils as female teachers (Spencer et al., 1999; Becker & Sibley, 2016). The learning behaviour surveyed by teachers correlated to semi-annual performance (~hypothesis 3) regardless of gender. Moreover, women and men did not differ in the assessment of individual with a migration background (~hypothesis 4). In both sexes it was again shown that learners with a migration background tended to be less validly judged than those without. This is also similar to other research in this area (Levy & Hughes, 2016; Riek et al., 2006; Stangor, 2016). In this respect, it is important to clarify whether the migration stigma alone is effective here, or whether cultural disparities actually exist in such a way that young people from other cultures are differently socialized with regard to their learning behaviour expressed in corresponding behaviour. Moreover, a view of only domestic and international pupils is considered too brief here, since in the case that was previously considered, further cultural differences could arise - depending on the country of origin and the mentality associated with this.

Conclusion

The aim of the study was to investigate whether the context of educational disadvantage specific factors of teachers interact with the factors of pupils in case of stereotype threat theory. The results suggest that teacher factors interact with pupil factors in the context of educational disadvantage. It has to be noted that female pupils were both more successful and more correctly assessed by the teachers – especially novices. But the results also show that pupils with migration background were less correctly assessed. From the teachers' aspect, the degree of professionalization is particularly important in the stereotyping. Hence, for practical implications more effective training in very early stages of teacher education regarding the assessment of male pupils and individuals with migration background is needed. Furthermore, the research showed that although stereotypes have less influence on older professionals, their diagnostic competence for individuals not coming from a migration background in addition to female pupils was less valid than those of novice, so in-service teacher development for these teachers would make sense.

As a limitation it has to be noted that the study was only conducted in Germany so further replications in other countries could be important at this stage. To conclude, in teacher education it is important to highlight stereotypes and migration-based stereo-

typing to prevent error of judgement regarding pupil achievement.

References

Aufschnaiter, C. V., Cappell, J., Dübbelde, G., Ennemoser, M., Mayer, J., Stiensmeier-Pelster, J., & Wolgast, A. (2015). Diagnostische kompetenz-theoretische überlegungen zu einem zentralen konstrukt der lehrerbildung [Diagnostic competence-theoretical reflections on a central construct of teacher education]. *Zeitschrift für Pädagogik,* (5), 738-758.

Baumert, J. & Kunter, M. (2006). Stichwort: Professionelle kompetenz von lehrkräften. [Keyword: Professional competence of teachers]. *Zeitschrift für Erziehungswissenschaft, 9,* 469-520. doi:10.1007/s11618-006-0165-2

Becker , J.C. & Sibley, C.G. (2016). Sexism. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination (pp. 315-336)*. New York: Psychology Press.

Breidebach, G. (2012). Bildungsbenachteiligung warum die einen nicht können und die anderen nicht wollen [Educational disadvantage – why some cannot and some dont want]. Hamburg: Kovacs.

Breidebach, G. (2013). *Professionelle hochschuldidaktik. motivierende und studierendenorientierte planung, durchführung und reflexion von lehrveranstaltungen - ein portfolio [Professional university didactics. Motivational and student-oriented planning, implementation and reflection of courses - a portfolio]*. Hamburg: Kovacs.

Brunner, M., Anders, Y, Hachfeld, A. & Krauss, S. (2011). Diagnostische Fähigkeiten von Mathematiklehrkräften. [Diagnostic skills of mathematics teachers.] In M. Kunter, J. Baumert, W. Blum, U. Klusmann, S. Krauss, M. Neubrand (Hrsg,). *Professionelle Kompetenz von Lehrkräften (S. 215-235)*. Münster: Waxmann.

Glogger-Frey, I. & Renkel, A. (2017). Diagnostische Kompetenz fördern – Vorwissen aufgreifende Methoden in Kombination mit beispielbasiertem Kurztraining. [Promoting diagnostic competence - methods based on prior knowledge combined with example-based short training.] In A. Südkamp & A.-K. Praetorius (Hrsg.), *Diagnostische Kompetenz von Lehrkräften. Theoretische und methodische Weiterentwicklungen (S. 217-222)*. Münster: Waxmann.

Gruber, N. (2017). Is the achievement motive gender-biased? The validity of TAT/PSE in women and men. *Frontiers in Psychology, 8,* 181. doi:10.3389/fpsyg.2017.00181

Hascher, T. (2008). Diagnostische kompetenzen im lehrberuf. [Diagnostic competencies in the teaching profession]. In C. Kraler & M. Schratz (Hrsg.), *Wissen erwerben, Kompetenzen entwickeln: Modelle zur kompetenzorientierten Lehrerbildung (S.71-86)*. Münster: Waxmann.

Helmke, A., Hosenfeld, I. & Schrader, F.-W. (2004). Vergleichsarbeiten als werkzeug für die verbesserung der diagnostischen kompetenz von lehrkräften [Comparative work as a tool for improving the diagnostic competence of teachers]. In R. Arnold & C. Griese (Hrsg.), *Schulleitung und Schulentwicklung (S. 119-144)*. Hohengehren: Schneider.

Hesse, I. & Latzko, B. (2017). *Diagnostik für lehrkräfte [Diagnostics for teachers]*. Toronto. Opladen.

Karing, C. & Seidel, T. (2017). Förderung diagnostischer kompetenz [Promoting diagnostic competence]. In A. Südkamp & A.-K. Praetorius (Hrsg.), *Diagnostische Kompetenz von Lehrkräften. Theoretische und methodische Weiterentwicklungen (S.201-203)*. Münster: Waxmann.

Klieme, E., Artelt, C., Hartig, J., Jude, N., Köller, O., Prenzel, M. et al. (2010). *PISA 2009. Bilanz nach einem Jahrzehnt [PISA 2009: balance sheet after one decade]*. Münster: Waxmann.

Klug, J., Bruder, S., & Schmitz, B. (2016). Which variables predict teachers diagnostic competence when diagnosing pupils' learning behavior at different stages of a teacher's career?. *Teachers and Teaching, 22(4)*, 461-484. doi:10.1080/13540602.2015.1082729

KMK (2014). Standards für die Lehrerbildung: Bildungswissenschaften. Beschluss der Kultusministerkonferenz vom 16.12.2004 i d. F. vom 12.06.2014. Retrieved November 10, 2017, from https://www.schulministerium.nrw.de/docs/Recht/LAusbildung/KMK-Beschluesse/Standards-Lehrerbildung-Bildungswissenschaften.pdf

Levy, S.R. & Hughes, J.M. (2016). Development of racial and ethnic prejudice among children. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination (pp.23-29)*. London: Psychology Press.

Lorenz, C. (2011). *Diagnostische kompetenz von grundschullehrern [Diagnostic competence of primary school teachers]*. Bamberg: Opus.

MSW (2015). Qualitätsanalyse in Nordrhein-Westfalen. Impulse für die Weiterentwicklung von Schulen [Qualityanalysis in NRW: Impulse for teaching at school]. Retrieved November 10, 2017, from https://www.math.uni-bielefeld.de/~ringel/themen/nrw.pdf

MSW (2017). Das Qualitätstableau NRW [The Qualitytableau NRW]. Retrieved November 10, 2017, from, https://www.schulministerium.nrw.de/docs/Schulentwicklung/Qualitaetsanalyse/Tableau/Tableau/index.html

Oomen-Welke, I., & von Rhöneck, C. (1988). *Schüler--persönlichkeit und lernverhalten: methoden des messens und deutens in der fachdidaktischen unterrichtsforschung [Pupil personality and learning behaviour: Methods of measuring and interpreting in didactic teaching research.* Olmen: Gunter Narr Verlag.

Petermann, U. & Petermann, F. (2013). LSL: Lehrereinschätzliste für sozial- und lern-

verhalten [LSL: Teacher Assessment List for Social and Learning Behavior]. Göttingen: Hogrefe.

Praetorius, A.-K. & Südkamp, A. (2017). Eine Einführung in das thema der diagnostischen kompetenz von lehrkräften [An introduction to the topic of diagnostic competence of teachers]. In A. Südkamp & A.-K. Praetorius (Eds.), *Diagnostische kompetenz von lehrkräften. theoretische und methodische weiterentwicklungen (pp.. 13-18).* Münster: Waxmann.

Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and outgroup attitudes: A meta-analytic review. *Personality and Social Psychology Review, 10*(4), 336-353. doi:10.1207/s15327957pspr1004_4

Schmid-Ott, G., Gissendanner, S. & Böhm, D. (2014). Stigmatisierung [Stimatization]. In M. A. Wirtz (Hrsg.), *Dorsch – Lexikon der Psychologie (18. Aufl., S. 1630)*. Göttingen: Hogrefe.

Shapiro, J., Aronson, J. & McGlone, M.S. (2016) Stereotype Threat. In T.D. Nelson, (Ed.). *Handbook of prejudice, stereotyping, and discrimination (pp. 87-105)*. New York: Psychology Press.

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology, 35*(1), 4-28. doi:10.1006/jesp.1998.1373

Spinath, B. (2005). Akkuratheit der Einschätzung von Schülermerkmalen durch Lehrer und das Konstrukt der diagnostischen Kompetenz [Accuracy of teacher assessment of student characteristics and construct of diagnostic competence]. *Zeitschrift für Pädagogische Psychologie, 19*, 85-95. doi: 10.1024/1010-0652.19.12.85

Stangor, C. (2016) The study of stereotyping, prejudice and discrimination withing social psychology: A quick history of theory and research In T.D. Nelson, (Ed.). *Handbook of prejudice, stereotyping, and discrimination* (pp. 1-22). New York: Psychology Press.

Südkamp, A. Kaiser, J. & Möller, J. (2017). Ein heuristisches Modell der Akkuratheit diagnostischer Urteile von Lehrkräften [A heuristic model of the accuracy of diagnostic judgments of teachers]. In A. Südkamp & A.-K. Praetorius (Hrsg.), *Diagnostische Kompetenz von Lehrkräften. Theoretische und methodische Weiterentwicklungen (S.33-38)*. Münster: Waxmann.

Wolgast, A. (2013). *Die wirkung von selbstregulation, selbstkonzept und motivation auf die diagnosekompetenz angehender lehrkräfte [The effect of self-regulation, self-concept and motivation on the diagnostic competence of future teachers]*. Gießen: Dissertation.