

Intercultural Competences of Fourth Graders in Germany

Kurd Azad

TU Dortmund University, Germany

kurd.azad@tu-dortmund.de

Heike Wendt

TU Dortmund University, Germany

heike.wendt@tu-dortmund.de

Keywords

intercultural competences, development, elementary school children, TIMSS

Abbreviations

α	Cronbach's Alpha
bpb	Bundeszentrale für politische Bildung
EMIL	Europäisches Modularprogramm für Interkulturelles Lernen in der Lehreraus- und -fortbildung
IC	Intercultural competences
IDB Analyzer	International Database Analyzer
IEA	International Association for the Evaluation of Educational Achievement
KMK	Kultusministerkonferenz
M	Mean
n	Sample size
o. rep.	Own representation
R ²	Coefficient of determination
SE	Standard error
TIMSS	Trends in International Mathematics and Science Study
UNESCO	United Nations Educational, Scientific and Cultural Organization

Abstract

The focus of this paper is to close the research gap regarding the development and determinants of intercultural competences (IC) by analyzing the components of IC and student characteristics based on representative data of TIMSS 2015 (n = 2248). Results show that many fourth graders express highly positive IC, with the most positive self-reports occurring in the component of "openness". 24% of variance in IC can be explained by the covariates, which—with the exception of gender and prosocial behavior—all show significant relationships with IC. The results suggest that migration backgrounds and multilingualism should be seen as a special resource for the development of IC.

German Synopsis

Ziel dieses Beitrags ist, die Forschungslücke hinsichtlich der Entwicklung und Ausprägung von interkulturellen Kompetenzen zu schließen, indem Komponenten der interkulturellen Kompetenzen und Merkmale der Grundschüler*innen basierend auf repräsentative Daten von TIMSS 2015 (n = 2248) analysiert werden. Die Ergebnisse zeigen, dass fast alle Viertklässler*innen ihre interkulturellen Kompetenzen, insbesondere die Komponente Offenheit, positiv einschätzen. 24 % der Varianz von interkulturellen Kompetenzen können durch Kovariaten erklärt werden, die – mit Ausnahme von Geschlecht und prosozialem Verhalten – alle einen signifikanten Einfluss auf interkulturelle Kompetenzen haben. Die Ergebnisse suggerieren, dass der Migrationshintergrund und die Mehrsprachigkeit als eine besondere Ressource für die Entwicklung der interkulturellen Kompetenzen betrachtet werden sollten.

1. Introduction

According to current discourse, macro phenomena such as globalization (e.g., free markets), technologization (e.g., social media), internationalization (e.g., international student exchanges) and migration (e.g., refugees from Kurdistan) have led to an exponential increase of cultural plurality and diversity all over the world (Wolfin & Jonas 2009). Thus, Germany as an immigration country is characterized by a growing heterogeneity and multiculturalism of lifeworlds (Banks 2011). Kurt & Pahl (2016) even say that Germany has become the world's fastest-growing migration society. However, migration (background) is still seen as a deficit in the discourse (bpb 2008). Therefore, according to German education policy, schools should accept diversity as normality but also as potential for the development of the intercultural competences (IC) of all students (KMK 2013).

According to the reviewed literature, IC are the key competences of the twenty-first century (EMIL 2006) which should be promoted as early as pre-school education (Wolfin & Jonas 2009), because nowadays everyone needs IC (UNESCO 2013). IC are essential for interacting with people from other cultures or in intercultural situations (Wolfin & Jonas 2009). The term IC refers to a (self)reflexive confrontation with one's own images of others and cultures as well as their social creation context (KMK 2013). IC help to reduce discrimination and to promote tolerance (Wolfin & Jonas 2009). Despite their fundamental relevance, children's IC are hardly explored (Grosch & Hany 2006). Consequently, there is a gap in knowledge and research regarding the development and characteristics of the IC of children with and without a migration background at German elementary schools. This paper aims to contribute to closing this gap by analyzing components of IC and individual characteristics of fourth graders (students with a mean age of 10 years) based on representative data of TIMSS 2015.

2. Development of IC

The development of IC is tedious, multidimensional, multifaceted and complex (Deardorff 2006). Nevertheless, IC are seen as the result of an (inter)cultural and individual learning and experience process (UNESCO 2013). Experiences with "foreign" (other) people are very enriching because they can expand one's own horizon (Bolten 2012; Badawia 2006). Without (self-)reflection on the foreign view, sensitization towards one's own cultures is impossible (EMIL 2006; Fantini 2000). So, IC, as well as interculturality, arise when individuals from different cultures (lifeworlds) interact with each other (Reinders et al. 2011; Bolten 2012).

According to the literature, the interplay of cognitive, affective and conative dimensions and their components supports the positive development of IC (Grosch & Leenen 2000; Navaitienė et al. 2015). The most common and important components of IC are shown in Figure 1.



Figure 1: Learning model of IC (o. rep.)

The cycle-based learning model of IC demonstrates that the development of IC is a lifelong, dynamic learning process (Krok et al., 2010), which enriches itself cyclically with various components (Boecker 2006). Most of the components of IC are built and developed during childhood (Simoni et al. 2016; Malti et al. 2016), and they become increasingly complex and abstract through the course of life. Moreover, they are shaped by different cultures and respective differences in socialization, education and milieu contexts (Trommsdorf 1993; Siegler et al. 2016). It should be noted that the IC-components not only influence each other reciprocally (Boecker 2006), but that they can also move over other dimensions like clouds. For example, (inter)cultural knowledge (the cognitive dimension) is first generated and developed through communication (the conative dimension) (Bolten 2012), which, in turn, is loaded with feelings (the affective dimension) and knowledge (the cognitive dimension). According to the paradigm of lifelong learning, people can progress their development of IC but never achieve them fully and completely (Krok et al., 2010). Fantini (2000) also affirms that there is no such thing as an end point of IC, and that people sometimes experience moments of regression or stagnation. Individuals are continually in the process of becoming

interculturally competent (Fantini 2000). That is why children at first learn from older people (post-figurative cultures), then they only learn from each other (children's cultures, configurative cultures), and finally, the older generation learns from children (pre-figurative cultures) (Oerter 2014).

Generally, theoretical and empirical approaches to the development and determinants of children's IC are scarce (Grosch & Hany 2006), especially in the context of migration. However, it is assumed that in Germany, children with migration backgrounds have higher levels of IC than their peers without migration backgrounds. These higher levels of IC manifest themselves in terms of children's ability to perform "culture switches" (Ittel 2016) and to show reflexive interculturality (Apitzsch 2006) and knowledge about the "migration culture" and the "native culture" (Bolten 2012), as they are more likely to be exposed to intercultural situations and related learning opportunities.

3. State of research

There are hardly any German or English studies describing the development of children's IC and showing the differences between children with and without migration backgrounds. Five out of six children in German elementary schools visit multicultural classes and therefore have some kind of opportunity for intercultural contacts (Bremerich-Vos, Wendt & Hußmann 2017). In addition, 67% of children have regular meetings and activities with children of other cultures in everyday life (Krok et al. 2010).

Research in Germany has shown that children with migration backgrounds have higher levels of IC than their peers without migration backgrounds in terms of "culture switches" (Ittel 2016) and inter-ethnic friendships (Reinders et al. 2011). Krok et al. (2010) found gender differences in favor of girls and suggest that these may be partially explained by differences in social competences. However, no large-scale data set for German elementary schools exists.

4. Research questions

This paper focuses on three research questions:

1. How can the IC of fourth graders in Germany be characterized in terms of relationship, openness and (inter)cultural knowledge?
2. To what extent are IC related to language and social competences (empathy, prosocial behavior and perspective-taking)?

3. To what extent are IC related to other student characteristics (gender, migration background, socioeconomic and cultural capital)?

5. Sample & Methods

We used data collected as part of an extension to TIMSS 2015 in Germany (n = 2248). The sample is broadly representative of German fourth graders. However, students with low levels of achievement are underrepresented. We calculated descriptive statistics and multivariate regression models considering the complex sampling by using the IEA IDB Analyzer.

Instrument for IC

Table 1 shows that we distinguish three components of IC, namely: relationships (contact), openness, and (inter)cultural knowledge (knowledge transfer), using items by Reinders et al. (2011). These subscales, as well as the overall scale ($\alpha = 0.99$), show very good reliability values.

Table 1: Survey instrument of IC (o. rep.)

Component of IC	Description of component (subscale)	Number of items	Exemplary item	Reliability (Cronbach's α)
Relationship	Relationship (contact) with "foreign" children	7	"How often do you play with children who come from another country?"	0.87
Openness	Openness to other cultures	4	"Do you like it when children from other countries are at your school?"	0.83
(Inter)cultural knowledge	Knowledge about (own & foreign) cultures	5	"My friend tells me how festivals are celebrated at his/her home."	0.89

Response format: 1 = Very often; 2 = Often; 3 = Seldom; 4 = Never. Recoded for the analysis: 0 = Never;...; 3 = Very often.

Instruments for covariates

For *migration background*, we used information of parents' country of birth, distinguishing between children with at least one parent born abroad (30.3%; SE = 1.5) and both parents not born abroad (69.7%; SE = 1.5).

For *multilingualism*, we combined information on early home language and mother tongue and differentiated between monolingual (76%; SE = 1.9) and multilingual (24%; SE = 1.9) students.

For social competences, we built on the work of Frey & Wendt (2015), using scales of students' self-reports on *empathy*, *prosocial behavior* (relationship) and *perspective-taking* (multi-perspectivity).

As further covariates we used indicators for *socioeconomic* (HISEI) and *cultural capital* (cultural activities); *students' gender* was also included.

6. Results

Table 2 presents the German students' self-assessment across IC and their subscales as well as their level of IC (IC-degree).

Table 2: Self-assessment of fourth graders by IC overall, subscales & degree (o. rep.)

	Mean IC	Percentage of students by IC-degree			
	M (SE)	low % (SE)	medium % (SE)	high % (SE)	very high % (SE)
Overall scale					
IC	1.81 (0.02)	7.38 (0.66)	21.5 (1.00)	52.79 (1.14)	18.34 (1.06)
Subscales					
Relationship	1.75 (0.03)	11.00 (1.05)	23.69 (1.15)	46.36 (1.13)	18.95 (1.13)
Openness	2.06 (0.02)	9.06 (0.74)	10.91 (0.74)	38.80 (1.11)	41.22 (1.24)
(Inter)cultural knowledge	1.72 (0.02)	15.76 (0.82)	26.47 (0.96)	31.96 (1.08)	25.82 (0.97)

IC-degree: low 0-0.74 (M); medium 0.75-1.49 (M); high 1.5-2.24 (M); very high 2.25-3 (M)

The results show that the self-assessment of elementary school children in Germany is generally positive. All means from 1.72 to 2.06 can be considered as high. For example, 52.79% of fourth graders rate their IC as high. The component "openness" is rated particularly positively (M = 2.06). In other words, 41.22% of elementary students assess their openness as very high. 46.36% of children rate their relationship as high. While 31.96% of elementary school students assess their (inter)cultural knowledge as high, 15.76% of them assess their (inter)cultural knowledge as low.

Table 3 presents multivariate regression models of components and covariates on overall IC, i.e. it displays the determinants of IC.

Table 3: Determinants of IC (o. rep.)

	Model 1	Model 2	Model 3
Fixed effects			
Constant	0.48 (0.08)	1.60 (0.08)	0.49 (0.12)
IC-Components			
Multilingualism ¹	0.20 (0.03)		0.09 (0.04)
Empathy ²	0.15 (0.03)		0.21 (0.04)
Prosocial behavior ²	0.17 (0.04)		0.08 (0.05)
Multi-perspectivity ²	0.23 (0.02)		0.17 (0.03)
Student characteristics			
Boys ³		-0.15 (0.04)	-0.05 (0.04)
No migration background ⁴		-0.28 (0.04)	-0.26 (0.04)
Socioeconomic capital ⁵		0.00 (0.00)	0.00 (0.00)
Cultural capital ²		0.27 (0.03)	0.20 (0.03)
R²	0.18 (0.02)	0.11 (0.02)	0.24 (0.02)

Remarks: Significant coefficients bold ($p < 0.05$); Standard error in parentheses

¹ Reference category: monolingual

² Values between 0 and 3

³ Reference category: female

⁴ Reference category: at least one parent born abroad

⁵ HISEI: Values between 14.21 and 88.96

If the covariates are categorised according to the theoretical learning model of IC (see section 2), IC can be better explained by model 1 (components) than model 2 (student characteristics), because it has a higher coefficient of determination ($R^2 = 0.18$). In addition, all components have a significant impact on IC ($p < 0.05$). Here, multi-perspectivity has the strongest effect ($\beta = 0.23$). In model 2, all student characteristics except socioeconomic capital have a significant impact on IC. The effect of migration backgrounds is particularly strong ($\beta = 0.28$), which is also found in model 3 ($\beta = 0.26$). This means that children with migration backgrounds are more likely to express positive self-assessments than children without migration backgrounds. In terms of gender, it is noticeable that there is a stronger significant relationship between girls and IC than between boys and IC because the regression coefficient of girls ($\beta = 0.15$) is positive. However, in the overall model (model 3), which considers all covariates and best explains IC ($R^2 = 0.24$), there is no significant influence of gender and prosocial behavior on IC, but instead a significant impact of socioeconomic capital on IC.

7. Summary of results

The results show that the majority of fourth graders in Germany express high positive IC, with the most positive levels of self-assessment presenting in the component relating to openness,

followed by relationship and (inter)cultural knowledge. The multivariate regressions show that 24% of the variance in IC can be explained by the covariates, which – with the exception of gender (student characteristics) and prosocial behavior (social competences) – all have significant relationships with IC. It means that high levels of cultural and socioeconomic capital as well as migration backgrounds, empathy, multilingualism and multi-perspectivity show high positive relationships with IC.

8. Limitations

The sample has limited representative value for German elementary school children because fourth graders with low achievement are underrepresented. This was probably due to the research design of TIMSS, which is very time-consuming and may have overtaxed the students conducting the research. In addition, the instruments only include fourth graders' self-assessments. However, in order to make general statements about IC, it is best to use a combination of quantitative and qualitative methods, including interviews, observations, and self-assessments.

Next, the survey instrument only focuses on three central components of IC. This raises the question of how the other important components of IC can be characterized. TIMSS is a cross-sectional study that represents a "snapshot," but not a developmental process of IC. Therefore, causal interpretations of any relationships identified in this paper are not possible.

9. Conclusion

The results suggest that migration backgrounds and multilingualism positively contribute to the development of IC. These factors should be seen as a special resource or advantage and not as a deficit.

The construct of IC needs further well-grounded empirical and theoretical studies, especially from the perspective of developmental psychology, because the development of children's IC is based on cognitive, affective and conative dimensions which are at the same time key dimensions of developmental psychology. In this context, a very important question would be whether IC are innate competences.

There is a need for explicit learning opportunities and concepts for intercultural learning in all elementary schools, regardless of composition characteristics, because at least 15.76% of elementary school children assess their (inter)cultural knowledge as low. Pedagogical concepts should address cognitive, affective and conative dimensions of IC. Otherwise, according to the

learning model of IC (see section 2), it does not make much sense that elementary school students should have a lot of (inter)cultural knowledge, but that they should lack respectful attitudes and (self)reflexive behaviors. However, it should be taken into consideration that the development of IC is not a learning objective in itself, but a lifelong learning process.

References

- Apitzsch, U. (2006): Die Migrationsfamilie: Hort der Tradition oder Raum der Entwicklung interkultureller biografischer Reflexivität?. In: Badawia, T., Luckas, H. & Müller, H. (Ed.): *Das Soziale gestalten*. Wiesbaden: VS-Verlag. P. 249-264.
- Badawia, T. (2006): Die leise Vernunftstimme der Intra-kulturalität – kritische Anmerkungen zur „Reflexiven Interkulturalität“. In: Badawia, T., Luckas, H. & Müller, H. (Ed.): *Das Soziale gestalten*. Wiesbaden: VS-Verlag. P. 281-294.
- Banks, J. A. (2011): Multicultural education: Dimensions and paradigms. In: Banks, J. A. (Ed.): *The Routledge International Companion to Multicultural Education*. New York: Routledge. P. 9-32.
- Boecker, M. C. (2006): Interkulturelle Kompetenz – Schlüsselqualifikation des 21. Jahrhunderts. URL: <http://edoc.hu-berlin.de/miscellanies/bruecken-28964/3/PDF/3.pdf>. Retrieved 02.11.2017.
- Bolten, J. (2012): *Interkulturelle Kompetenz*. 5. ergänzte und aktualisierte Auflage. Erfurt: Landeszentrale für politische Bildung Thüringen.
- bpb (2008): *Migrantenkinder im Bildungssystem: doppelt benachteiligt*. URL: <https://www.bpb.de/apuz/30801/migrantenkinder-im-bildungssystem-doppelt-benachteiligt?p=all>. Retrieved 23.08.2018.
- Bremerich-Vos, A., Wendt, H. & Hußmann, A. (2017): Bausteine adaptiven Leseunterrichts angesichts gewachsener Heterogenität. In: Hußmann, A., Wendt, H., Bos, W., Bremerich-Vos, A., Kasper, D., Lankes, E.-M., McElvany, N., Stubbe & T. C., Valtin, R. (Ed.): *IGLU 2016. Lesekompetenzen von Grundschulkindern in Deutschland im internationalen Vergleich*. Münster: Waxmann. P. 297-314.
- Deardorff, D. K. (2006): Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. In: *Journal of Studies in International Education*. Vol. 10. No. 3. P. 241-266.
- EMIL (2006): *Interkulturelle Kompetenz in der Grundschule*. URL: <http://www.emil.ikk.lmu.de/deutch/Handbuch-EMIL-Volltext.pdf>. Retrieved 02.11.2017.
- Fantini, A. E. (2000): A central concern: Developing intercultural competence. In: *World Learning* (Ed.): *Report by the Intercutlural Communicative Task Force*. Brattleboro: VT. P. 25-42.
- Frey, K. A. & Wendt, H. (2016): Soziale Kompetenz von Kindern in Deutschland am Ende der Grundschulzeit. In: Wendt, H., Bos, W., Selter, C., Köller, O. Schwippert, K. & Kasper, D. (Ed.): *TIMSS 2015*. Münster: Waxmann. P. 333-350.
- Grosch, C. & Hany, E. (2006): *Interkulturelles Verständnis aus entwicklungspsychologischer Perspektive*. URL: <http://schlauseite.de/wordpress/wp-content/uploads/kultur/IK-EF-Heft1.pdf>. Retrieved 02.11.2017.

Azad, K., & Wendt, H. (2019). Intercultural competences of fourth graders in Germany. In E. Gutzwiller-Helfenfinger, H. J. Abs, & P. Müller (Eds.), *Thematic papers based on the Conference "Migration, Social Transformation, and Education for Democratic Citizenship"* (pp. 107-117). University of Duisburg-Essen: DuEPublico. doi: 10.17185/duepublico/47636

Grosch, H. & Leenen, W. R. (2000): Bausteine zur Grundlegung interkulturellen Lernens. In: Bundeszentrale für politische Bildung (Ed.): *Interkulturelles Lernen*. Bonn: Bundeszentrale für politische Bildung. P. 29-46.

Ittel, A. (2016): »On the move« - Soziale Kompetenz und Identität im Kindes- und Jugendalter. In: Malti, T. & Perren, S. (Ed.): *Soziale Kompetenz bei Kindern und Jugendlichen*. 2. überarbeitete und erweiterte Auflage. Stuttgart: Kohlhammer. P. 134-152.

KMK (2013): *Interkulturelle Bildung und Erziehung in der Schule*. URL: http://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/1996/1996_10_25-Interkulturelle-Bildung.pdf. Retrieved 15.12.2017.

Krok, I., Rink, B. & Bruhns, K. (2010): *Interkulturelle Kompetenz durch internationale Kinderbegegnung*. München: Deutsches Jugendinstitut e.V..

Kurt, R. & Pahl, J. (2016): *Interkulturelles Verstehen in Schulen des Ruhrgebiets*. Wiesbaden: Springer Fachmedien.

Malti, T., Bayard, S. & Buchmann, M. (2016): Mitgefühl, soziales Verstehen und prosoziales Verhalten: Komponenten sozialer Handlungsfähigkeit in der Kindheit. In: Malti, T. & Perren, S. (Ed.): *Soziale Kompetenz bei Kindern und Jugendlichen*. 2. überarbeitete und erweiterte Auflage. Stuttgart: Kohlhammer. P. 53-71.

Navaitienė, J., Rimkevičienė, V. & Račelytė, D. (2015): *Methodischer Leitfaden zur Entwicklung interkultureller Kompetenz*. URL: http://incom-vet.eu/wp-content/uploads/2015/09/1_METHODISCHER-LEITFADEN-ZUR-ENTWICKLUNG-INTERKULTURELLER-KOMPETENZ.pdf. Retrieved 02.11.2017.

Oerter, R. (2014): *Der Mensch, das wundersame Wesen. Was Evolution, Kultur und Ontogenese aus uns machen*. Wiesbaden: Springer Fachmedien.

Reinders, H., Gniewosz, B., Gresser, A. & Schnurr, S. (2011): Erfassung interkultureller Kompetenzen bei Kindern und Jugendlichen. Das Würzburger Interkulturelle Kompetenz-Inventar (WIKI-KJ). In: *Diskurs Kindheits- und Jugendforschung*. Heft 4. P. 429-452.

Siegler, R., Eisenberg, N., DeLoache, J. & Saffran, J. (2016): *Entwicklungspsychologie im Kindes- und Jugendalter*. 4. Auflage. Berlin Heidelberg: Springer-Verlag.

Simoni, H., Herren, J., Kappeler, S. & Licht, B. (2016): Frühe soziale Kompetenz unter Kinder. In: Malti, T. & Perren, S. (Ed.): *Soziale Kompetenz bei Kindern und Jugendlichen*. 2. überarbeitete und erweiterte Auflage. Stuttgart: Kohlhammer. P. 15-35.

Trommsdorff, G. (1993): *Entwicklung im Kulturvergleich*. In: Thomas, A. (Ed.): *Kulturvergleichende Psychologie: Eine Einführung*. Göttingen: Hogrefe. P. 103-143.

UNESCO (2013): *Intercultural Competences. Conceptual and Operational Framework*. Paris: UNESCO.

Woltin, K.-A. & Jonas, K. J. (2009): *Interkulturelle Kompetenz – Begriffe, Methoden und Trainingseffekte*. In: Beelmann, A. & Jonas, K. J. (Ed.): *Diskriminierung und Toleranz*. Wiesbaden: VS-Verlag. P. 463-487.

Intercultural Competences of Fourth Graders in Germany

Azad, Kurd; Wendt, Heike

In: Thematic Papers Based on the Conference: "Migration, Social Transformation, and Education for Democratic Citizenship"

This text is provided by DuEPublico, the central repository of the University Duisburg-Essen.

This version of the e-publication may differ from a potential published print or online version.

DOI: <https://doi.org/10.17185/duepublico/47636>

URN: <urn:nbn:de:hbz:464-20190201-145157-6>

Link: <https://duepublico.uni-duisburg-essen.de:443/servlets/DocumentServlet?id=47636>

License:



This work may be used under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/) license.