

Evidence based indicators for local educational monitoring

Rockmann, Ulrike; Leerhoff, Holger; Butler, Jeffrey

Erstveröffentlichung / Primary Publication

Konferenzbeitrag / conference paper

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

Institut für Schulqualität der Länder Berlin und Brandenburg e.V.

Empfohlene Zitierung / Suggested Citation:

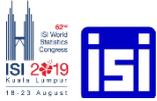
Rockmann, U., Leerhoff, H., & Butler, J. (2019). Evidence based indicators for local educational monitoring. In *IS/ World Statistics Congress Proceedings* (pp. 1-6) <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-64209-5>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-NC Lizenz (Namensnennung-Nicht-kommerziell) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: <https://creativecommons.org/licenses/by-nc/4.0/deed.de>

Terms of use:

This document is made available under a CC BY-NC Licence (Attribution-NonCommercial). For more information see: <https://creativecommons.org/licenses/by-nc/4.0>



Evidence based indicators for local educational monitoring - Detective work for the district Berlin-Mitte.

Ulrike Rockmann¹; Holger Leerhoff²; Jeffrey Butler³

- 1 Institute for School Quality Berlin-Brandenburg e.V.
- 2 State Statistical Office Berlin-Brandenburg
- 3 District Administration Berlin-Mitte

Abstract

As has been shown in PISA and PIAAC, the social background has an impact on educational outputs and outcomes in Germany. Efforts made in the last decades have improved the situation, but life circumstances still influence the opportunities of children and adults to develop their educational potentials, and performance gaps still remain. Considerations about developing educational policies to counteract this have focused up to now on educational institutions and kindergarten (early education and care (ECEC)) as well as on specific social groups of individuals. Especially since 2014/15 with a higher number of persons seeking asylum or recognition as refugees in Germany, in political discussions the indicator immigrant background is omnipresent and often Germany's immigration past since 1955 is widely neglected (Maaz et al. 2018b, figure 12).

In the course of time the awareness also grew in non-scientific circles that, in addition to legal and constitutional necessities to identify foreigners, the value of the broad indicator *immigrant background* for explaining educational failure or success is very low, if at all existent. Therefore, the longstanding and on-going usage of the term in this regard can be seen in the light of lacking adequate indicator definitions and data to calculate them and represent an attempt at simplifying a complex situation. In consequence, the efforts to identify indicators that explain good or poor performance in the German educational system have been increased. In 2006 and 2016, *education and immigration* was the main topic in the central publication *Education in Germany* that is jointly commissioned by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) and the Federal Ministry of Education and Research.

In 2017, the district government of Berlin-Mitte, a district that is home for 377.985 inhabitants with 179 nationalities, made a decision to initiate the project EduMitte to identify indicators for monitoring the educational processes on the local level covering the education time from ECEC until the end of secondary school [1]. Reasons for this initiative were the special integration policy of the district to discontinue using the term immigrant background in its planning activities due to its negative connotation and the fact that it is only a descriptive and not an explanatory characteristic [2]. Further, the fact that for many years about 11% of the adolescents leave secondary school without a school certificate was seen as a clear political mandate to act (Rockmann, U., & Leerhoff, H. 2018, p. 18).

First project results were presented in August 2018, showing for some specific family constellations that the immigrant background does not make a difference in kindergarten attendance years when controlling the results for the education of the family (ISCED level) and the languages(s) spoken at home.

Keywords:

Immigrant background; indicator; education; monitoring; policy making

1. Introduction

In Germany the responsibility for primary and secondary school is highly decentralized. The KMK coordinates some broader general issues on national level. The federal states are fully responsible for providing an adequate budget for setting up sufficient primary and secondary schools, employing

teachers etc. Due to the two-level administration within the Federal State Berlin the organization is further decentralized to its 12 districts, Berlin-Mitte being one of them. Within the Berlin-wide educational framework districts are able to make their own methodological decisions, for example concerning instruments used for evaluating language competences. Furthermore, schools have freedom of decision with regard to education related procedures and methods. All in all, it is no easy task to keep track of everything and comparisons between federal states and even between the districts of Berlin are challenging and bear the risk of comparing apples with oranges.

Germany has no nationwide educational register with data like participation time in educational programs, examination certificates, educational biographies etc. Therefore, the educational research community either uses data from large scale assessments, data collected by the National Education Panel Survey project (NEPS) or the Official Statistics Microcensus (M-Census). All these data sources have a limitation due to their sample size and design: it is only possible to obtain data on a national, a federal state and in rare cases a district level but not for lower local levels. Therefore, these data only provide a general framework but are not sufficient for local analysis' in Berlin-Mitte, because the social situation in this district with 378.000 inhabitants is far too heterogeneous.

For years, about 11% of the adolescents leave secondary schools in Berlin-Mitte without a school certificate – especially those with a foreign citizenship. Data from official statistics show that these adolescents have nearly no chance to enter a vocational training program and, in consequence, have a high probability to end up in the social transfer system. In 2016, 95% of the adults without a school certificate also did not complete any type of occupational training (Rockmann, U., & Leerhoff, H. 2018, p. 16). The above-average rate of unsuccessful school leavers together with the high number of refugees entering schools without sufficient knowledge of the German language were two inspirations for the project EduMitte initiated and supported by the district government. Besides identifying educational and organizational barriers and finding valid quantitative monitoring indicators, the project has the further goal of establishing sustainable administrative monitoring routines without too much additional effort. Saying that, the first project step was a review of the existing data infrastructure.

2. Methodology

Target population: The target populations of the project are children and adolescents younger than 18 years old living in the district Berlin-Mitte who attend kindergarten, primary or secondary school. Since it is not controversial that the family plays an important role in their children's education, the families belong to the target population as well. In 2016, about one third of the population in the district Berlin-Mitte lived in families (households with adults and (their) minor children).

Data sources: Data used for this first project step are:

- Administrative data: The Berlin population register and the Berlin-Mitte school enrollment health survey data (ESU-S).
- Official Statistics data: the Microcensus (1% population sample) and the Child and Youth Welfare Statistics (CYW-S), with a total coverage of all children attending official ECEC programs in institutions
- Survey conducted by the project: EduMitte-Q1questioning all parents of the Berlin-Mitte school enrollment cohort 2019/2020.

1st project step: Crucial factors in the educational biographies are the transitions between educational institutions. The project starts with the first transition from Early Childhood Education and Care (ECEC) to primary school. Thus, the target population of the 1st step are families with children less than 6 years old before entering primary school (about 3.500 children each year).

Input indicator(s) 1st project step: The individual input indicator are the years the children spent in ECEC. Since visiting the ECEC-institutions is not obligatory in Germany, the years spent in ECEC 01 and 02 programs vary. Most of the parents book full-time participation (Monday to Friday, 7–9 hours per day). The availability of ECEC places is not an intervening factor although the situation in Berlin is quite tense. It was not possible to include further input indicators like the quality of ECEC programs or the child-staff ratio, since information as to which kindergarten the children visited was not available for the project.

Output indicator 1st project step: The only available output indicator is the result of the standardized language test conducted during the school enrollment health examination (ESU-S) about 10 months before entering primary school (Bettge, S., & Oberwöhrmann, S., 2017). The enrollment cohort has to participate in this examination being the basis for the school readiness decision. The language test results are assigned to four categories – no German language knowledge, single German words, speaking fluently with major mistakes, good / very good German language skills.

Immigrant background: In general, the indicator is defined in slightly different ways due to the national situation (OECD 2018, p. 17, chap. 1.1.1). Because of the strict data-protection laws in Germany, only the citizenship was available for determining the immigrant status for a long time and still many administrative data sources – like the school statistics – do not include a wider approach. Since 2005, the German Microcensus collects more detailed data including the date of immigration to Germany. A person has an immigrant background if the person itself or one of the parents does not have the German citizenship by birth [3]. Therefore, native-born children to parents with only foreign citizenships are Germans with an immigrant background. The status of a person depends on its own status and on the status of the parents and grandparents (1st, 2nd and 3rd generation). On this high aggregation level three groups are differentiated – German citizenship without immigrant background, Germans with an immigrant background and foreigners. Although the definitions of the Berlin administrative population register and the Microcensus are not harmonized, the population register allows widely to approximate the Microcensus definition. By doing this, more detailed local information about the population becomes available. Also, the ESU-S collects detailed information: place of birth of the child and the parents, the date of immigration to Germany, the citizenship of the parents. Further, the CYW-S uses another definition: available is the dichotomous information about the origin of the parents (German / not German) and the predominantly spoken language at home (German / not German).

German language: For integration and participation in the society it is of central interest whether individuals have sufficient German language skills. For a very long time only the CYW-Statistics collected rudimentary language information. Starting in 2017, the Microcensus respondents report the predominantly spoken language in the household, having 8 languages and 3 language groups for selection available. Unfortunately, the questionnaire does not consider that multi-lingual households are not singular cases anymore. This and the assumption that respondents with an immigrant background might anticipate the socially desired answer could lead to an overestimation of German speaking households. Nevertheless, the Microcensus data give a broad idea about the situation. 2017s data show that in Germany as well as in Berlin 87% of the households predominantly speak German [4]. The figures for Berlin's districts range from 96% in the district of Treptow-Köpenick to 74% in Berlin-Mitte – clearly pointing to the special situation in Berlin-Mitte.

The more important local data source for the 1st project step is the ESU-S. As a standard since 2016, parents are asked to name all languages spoken at home. In 2018, 21 languages were reported – besides German, mainly Turkish, Arabic, English, Russian and Polish. Unfortunately, the specific language constellation within the family is not enquired. Since children have different models in German speaking parents or German speaking siblings, the additional survey EduMitte-Q1 should clarify the details.

Social background: Again, the Mircocensus provides information about the social background of the family (education, income, employment etc.) on a national, a federal state and a Berlin district level. The educational risks for children related to the social situation of their families and the lack of sufficient educational resources are described by three standard indicators and their combinations initially derived from Pierre Bourdieu's work on culture and cultural capital (1983; Maaz et al., 2018, Chap. A4, Rockmann et al. 2014).

- EduRisk: a low formal educational level of the parents, both less than ISECD 3
- PovRisk: family income under the poverty threshold
- EmpRisk: both parents unemployed

Due to the 1%-sample rate, the Microcensus is not suitable for analyzing the district Berlin-Mitte in detail. By using the data from the ESU-S it is possible to calculate the indicators EduRisk and EmpRisk for school enrollment cohort.

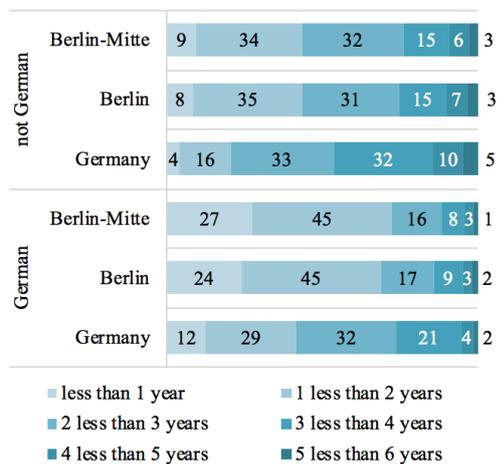
3. Results

Official CYW-Statistic shows that children in Berlin-Mitte start with ECEC programs quite early. 4% of the children younger than one year old attend ECEC. This rate is nearly constant since introduction of paid parental leave for 12 to 14 months after the child's birth. At the age of one year, 55% of the children are in ECEC and at the age of two years 87% (Rockmann, U., & Leerhoff, H. 2018, p. 42). Taking into account the language spoken at home, differences become obvious (fig. 1). Whereas 72% of children in Berlin-Mitte speaking mainly German at home started with ECEC before attaining the age of 2 years, the rate for children living in not-German speaking households is 43%.

The interpretation of this finding remains fragmentary: CYW-S does not deliver data about the place of birth of the child – therefore the question is unanswered as to whether families who do not speak German at home sent their children voluntarily later to ECEC or the child in question immigrated at an older age. If the general assumption is that it is beneficial for the child's development to start ECEC early, then it is of great interest to describe the group that starts later and try to identify reasons and possible barriers.

The school enrollment cohort 2018/19 started attending ECEC at the age of 2.3 years, native-born children with 2.0 years. The ECEC attendance years at the time of the ESU-S are on the average 3.8 years. Figure 2 illustrates that in case of a high family education level (ISCED 5 or more) ECEC years do not differ for children with two native-born parents or one parent being born abroad speaking only German or German and foreign languages at home. For the children living in families with an EduRisk (ISCED 0-2) neither the language(s) spoken at home nor the immigrant status of the parents make a difference and the attendance time is significantly less than for the ISCED-5-peer group.

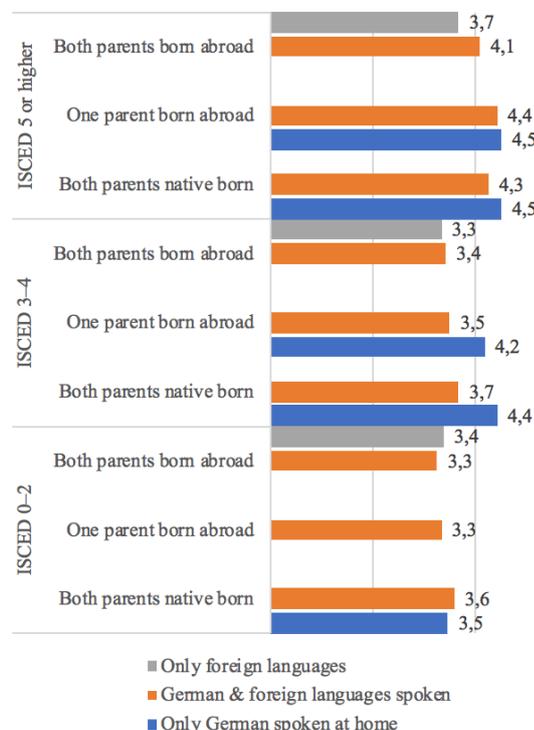
Figure 1: ECEC starting age by language spoken at home and region 2017 (in % of children attending ECEC)



Source (figure 1): Federal Statistical Office and statistical offices of the federal states, Child and Youth Welfare statistics, own calculations, reference date 1.3.2017

Source (figure 2): Child and Youth Health Services Berlin-Mitte, School enrollment health survey, school enrollment cohort school year 2018/19, own calculations

Figure 2: Attendance years (median) in ECEC of native-born children at the time of ESU -S by highest ISCED level in the family and place of birth of the parents (2018)



207 native-born children living with parents who were both born abroad and only speaking foreign languages start with ECEC later than average – at the age of 2.5 years. Children living in Arabic, Turkish and Kurdish speaking households start at the age of 2.8 years. For this group the ISCED level and the employment status of the mother have an impact: In the case of a highly educated family (ISCED 5 and higher) and an employed mother, the children start attending at the average-age of 2.0 years.

The correlation between the years spent in ECEC and the language skills at ESU-S is well documented over many years (fig. 3). In 2018, 85% of the children attending 3.5 years and more reach the highest language level (good /very good). For native-born children the percentage is 86% – for children born abroad 66%. In regard to children attending ECEC between 2.0 and 3.5 years, the percentage of high-performers drops by 20 percentage points.

Analyzing the language results according to the family’s immigrant status and ISCED level (fig. 4) shows patterns similar to the ECEC attendance years in figure 2. Like before, children with highly educated parents of which at least one is native-born, and either German or German and foreign languages are spoken in the household, are the best performers. Children living in families speaking foreign languages and having an EduRisk have more difficulties to reach a sufficient language competence.

Figure 3: Language test results ESU-S 2018 by place of birth and ECEC participation years (in %)

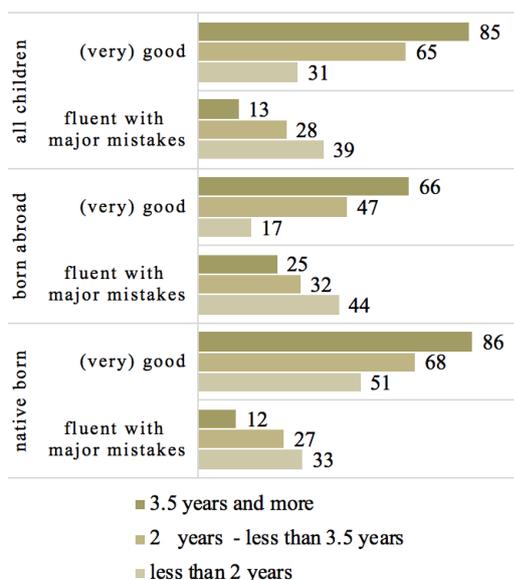
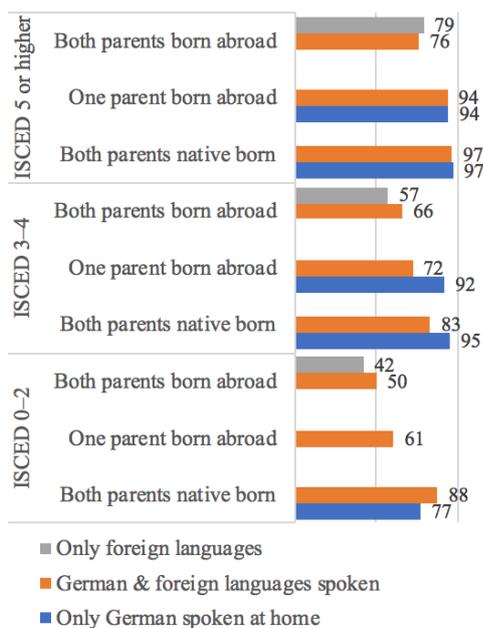


Figure 4: Language test results (very) good in ESU-S 2018 of native children by highest ISCED level in the family and parents’ place of birth (in %)



Source: Child and Youth Health Department Berlin-Mitte, School enrollment health survey, school enrollment cohort school year 2018/19, own calculations

4. Discussion and Conclusion:

The initial results obtained by analyzing the data available from administrative sources and official statistics give some indications as to whom local policies should be addressed. Although it was possible in some cases to replace the broad indicator immigrant background by the ISCED level, the spoken language and employment status, other calculations still show the indicator significant. Further, findings for special foreign languages give hints that experiences with the educational system in the former home countries are perhaps transferred to the new home country without further evaluation and therefore have an impact on the parents’ decisions. The currently on-going survey EduMitte-Q1 tries to clarify the validity of this assumption and could therefore help to establish a new approach in addressing policies. Furthermore, the EduMitte-Q1 collects data concerning the

educational aspirations of the parents, their knowledge of the German educational system, and the educational resources the children have at home.

References:

1. Bettge, Susanne & Oberwöhrmann, Sylke (2017). Grundausswertung der Einschulungsuntersuchungsdaten in Berlin 2017.
2. Bourdieu Pierre (1983) Ökonomisches Kapital, kulturelles Kapital, soziales Kapital. In: Bauer U., Bittlingmayer U.H., Scherr A. (Eds.) (2012) Handbuch Bildungs- und Erziehungssoziologie. Bildung und Gesellschaft. VS Verlag für Sozialwissenschaften, Wiesbaden. DOI: https://doi.org/10.1007/978-3-531-18944-4_15
3. OECD/EU (2018), Settling In 2018: Indicators of Immigrant Integration, OECD Publishing, Paris/European Union, Brussels. <https://doi.org/10.1787/9789264307216-en>
4. Maaz, Kai, Baethge, Martin, Brugger, Pia, Rauschenbach, Thomas, Rockmann, Ulrike, Seeber, Susann & Wolter, André (2018): Bildung in Deutschland – Ein indikatorengestützter Bericht mit einer Analyse zu Wirkungen und Erträgen von Bildung. ISBN 978-3-7639-5964-8.
5. Maaz, Kai, Baethge, Martin, Füssel, Hans-Peter, Hetmeier, H.-W., Rauschenbach, Thomas, Rockmann, Ulrike, Seeber, Susann & Wolter, André (2016): Education in Germany – An indicator-based report including an analysis of education and migration, 2016, ISBN 978-3-7639-5742-2; DOI: 10.3278/6001820ew
6. Rockmann, Ulrike & Leerhoff, Holger (2018). Bildungsmonitoring in Berlin-Mitte. Bildungszugänge und Bildungsübergänge von Kindern im Alter von 0 bis 18 Jahren im Bezirk Berlin-Mitte. 1. Projektbericht. ISBN 978-3-9809139-9-7
7. Rockmann, Ulrike, Rehkämper, Klaus & Leerhoff, Holger (2014). Bildungskapital verringert Bildungsrisiken. In DIJ Impulse, Das Bulletin des Deutschen Jugendinstituts 3/2014, Nr. 107, S. 26-29, ISSN2192-9335

Hyperlinks:

[1]: <https://www.berlin.de/ba-mitte/politik-und-verwaltung/beauftragte/integration/bildungsmonitoring/>;

accessed 27.12.2018

[2]: https://www.berlin.de/ba-mitte/politik-und-verwaltung/gremien/migrationsbeirat/beschluss_mmmh_141119.pdf;

accessed 26.12.2018

[3]:

<https://www.destatis.de/EN/FactsFigures/SocietyState/Population/MigrationIntegration/Methods/MigrationBackground.html>, Fachserie 1, Reihe 2.2; accessed 26.12.2018.

[4]:

<https://www.destatis.de/DE/Publikationen/Thematisch/Bevoelkerung/MigrationIntegration/Migrationshintergrund.html>; accessed 27.12.2018.