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## Young refugees in prevocational preparation classes: Who is moving on to the next step?

### Abstract

*Since 2015, an enormous number of refugees have migrated to Germany. To obtain qualified jobs, many of them attend prevocational preparation classes. The aims of these classes are mainly the acquisition of German language skills and preparation for subsequent vocational education and training. This paper examines (1) the transitions of young refugees after prevocational preparation classes and (2) what factors predict the transition to the next educational step.*

*Using data from the first two measurement points of a longitudinal survey (t1 during the prevocational preparation class and t2 one year later), we surveyed 333 students in Southwest Germany (82% male; mean age = 18.9 years). Instruments included an online questionnaire, an online test of cognitive ability, and an online test of German language skills. Approximately 37 percent of the students repeated the prevocational preparation class, whereas 60 percent moved on to the next educational step. German language skills at t1 and contact with people helping refugees (t1) predicted the probability of the transition to a “regular” educational pathway. Other variables, such as the educational background of the young refugees and of their parents, personality, motivation, and aspirations, had no significant effects. The findings can be interpreted in terms of the primary (language skills) and secondary effects of refugees’ ethnic background (information about the education system through contact with locals).*

### Keywords

*Refugees; Vocational education and training; Transition system; Integration; German language skills*

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## **Junge Geflüchtete in Vorbereitungsklassen: Wem gelingt der nächste Schritt?**

### **Zusammenfassung**

*Seit 2015 ist eine große Anzahl Geflüchteter nach Deutschland gekommen. Viele von ihnen, insbesondere junge Menschen, besuchen sogenannte Vorbereitungsklassen an beruflichen Schulen. Ziele dieser Klassen sind vor allem der Erwerb von Deutschkenntnissen und die Vorbereitung auf eine spätere Berufsausbildung. Der vorliegende Beitrag untersucht (1) die Übergänge junger Geflüchteter nach der Vorbereitungsklasse und (2) welche Faktoren den Übergang in einen Regelbildungsgang vorhersagen.*

*Zu den ersten zwei Messpunkten einer Längsschnittstudie (t1 in der Vorbereitungsklasse für Geflüchtete, t2 ein Jahr später) befragten wir 333 junge Geflüchtete im Südwesten Deutschlands (82% männlich; Durchschnittsalter = 18.9 Jahre). Zu den Instrumenten gehörten ein Online-Fragebogen, ein Online-Test der kognitiven Fähigkeiten und ein Online-Test der Deutschkenntnisse. Etwa 37 Prozent wiederholten die Vorbereitungsklasse, während 60 Prozent in einen Regelbildungsgang übergangen. Die Deutschkenntnisse zum ersten Messzeitpunkt sowie Kontakte zu Flüchtlingshelfer\*innen (t1) erhöhen die Wahrscheinlichkeit auf den Übergang in einen Regelbildungsgang signifikant. Andere Indikatoren wie der Bildungshintergrund der Geflüchteten und ihrer Eltern, die Persönlichkeit, Motivation und Aspirationen hatten keine signifikanten Auswirkungen. Die Befunde können als primäre (Sprachkenntnisse) und als sekundäre Effekte der ethnischen Herkunft (Informationen über das Bildungssystem durch Kontakte zu Einheimischen) interpretiert werden.*

### **Schlagworte**

*Geflüchtete; Berufliche Bildung; Übergangssystem; Integration; Deutschkenntnisse*

## **1. Introduction**

Large numbers of refugees and asylum seekers have recently settled in Germany, especially in 2015 and 2016 (2015: 890.000; 2016: 280.000; BAMF, 2019, p. 8). Although the numbers have decreased since then, Germany was still the world's third largest recipient of new individual asylum applications in 2017 (UNHCR, 2018, p. 3). The integration of these migrants is a challenge for German society as a whole, but especially for the education system. Integration into the education system and the labor market is of crucial importance for refugees' equal participation in their new host country, which may in turn increase the public's acceptance of immigrants (Becker, 2011; Koopmans, 2015).

The refugees who have come to Germany since 2015 differ from earlier migrant groups in Germany. In the past, most migrants had been so-called "labor mi-

grants” (particularly from Turkey, Greece, Italy, and the former Yugoslavia), ethnic Germans (esp. from the former Soviet Union) and migrants from Eastern Europe (such as Poland and Bulgaria). Refugees who have arrived since 2015 have mostly come from non-European countries such as Syria, Afghanistan, Iraq, Iran, Eritrea, and Nigeria (BAMF, 2017, p. 18ff.). In these countries, the mean educational level is significantly lower than that in European countries (Bach et al., 2017; Brücker, Rother, & Schupp, 2017; Hanushek & Woessmann, 2015; Schier, 2017; Stoewe, 2017). Additionally, many refugees have disrupted their educational careers because they had to abruptly escape war and persecution and embark on extended trips (Diehl, Katsarova, Maué, & Schumann, 2017).

Due to their educational background and their age – 30 percent of the refugees in Germany in 2016 were between 16 and 25 years old (BAMF, 2017, p. 22) – many young refugees are either obligated (*Berufsschulpflicht*) or, depending on where they live in Germany, “allowed” to go to a vocational school (*Berufsschulberechtigung*). In vocational schools, these refugees typically have to attend special full-time prevocational preparation classes. These classes for refugees were established in 2015. The focus of these classes is to teach the German language, to provide basic vocational skills, and to keep refugees in the education system for a longer period of time. The characteristics of these classes vary between the 16 German federal states with regard to their duration (one or two years), the likelihood that students will gain a lower secondary school-leaving certificate and do an internship as well as the maximum age of participation (Baethge & Seeber, 2016; Grabinski, 2018).

Although refugees’ successful inclusion into the education system is key to their broader societal integration, little is known about the educational pathways of young refugees within the vocational education and training system. In our study, we analyze the role of different individual characteristics that shape early integration processes into the education system and the labor market (transition to apprenticeship or upper secondary education after attending prevocational preparation classes), as well as into society (extracurricular integration). To be more precise, this paper examines (1) how the educational transition of young refugees continues after prevocational preparation classes and (2) which factors enhance or hamper the transition from these classes to a “regular” vocational preparation class or other educational pathways.

## 2. Previous findings: Refugees in Germany’s education system

Since the arrival of numerous refugees in Germany in 2015, there has been a surge of research on their early integration patterns. These studies have described the characteristics of these newcomers and provided important information on how they were initially absorbed by the education system. The largest survey of refugees

in Germany took place in 2016 (the first point of measurement; since then, there have been several points of measurement). It was conducted with approximately 4,800 adult refugees who entered Germany between January 2013 and January 2016 and applied for asylum (IAB-BAMF-SOEP Survey of Refugees; Brücker et al., 2017), but some smaller and regionally more limited studies have been conducted as well, for example, in the federal state of Bavaria (Baumann & Riedl, 2016; Kärner, Feldmann, Heinrichs, Neubauer, & Sembill, 2016).

According to the IAB-BAMF-SOEP Survey of Refugees, the large majority of refugees attended school in their countries of origin (men: 90%, women: 83%), and most of them attended a secondary or upper secondary school. Although their average duration of schooling was ten years, there are large differences between the types of schools visited (Brenzel & Kosyakova, 2017, p. 19). Despite the relatively long average time of schooling, only less than one-fifth attended university or obtained a doctorate (with degree 12% of men and 14% of women). Over 70 percent did not attend vocational training (Brenzel & Kosyakova, 2017, p. 21), mainly due to the poor availability and/or reputation of vocational education in most of the countries of origin.

Findings from a survey of students in prevocational preparation classes in Bavaria point in a similar direction. According to this study, approximately half of the respondents attended school in their country of origin for nine years. However, the range extends from no school attendance to attendance for 15 years or longer (Baumann & Riedl, 2016, p. 90f.). Forty-two percent of the young refugees (men: 50%, women: 20%) reported work experience in their country of origin, mostly unskilled work (ibid., p. 102ff.). Overall, educational and vocational experiences vary between the different countries of origin, so educational and labor biographies are very heterogeneous among the group of refugees.

Previous studies have also suggested that the likelihood of the beginning of an apprenticeship for young refugees is increased by a German school-leaving certificate, work experiences in Germany through internships, introductory training (*Einstiegsqualifizierung*) or work on trial, and support from a mentor. In contrast, a foreign school-leaving certificate, work experiences in the country of origin, the course of study, participation in vocational preparation classes, the different ways of applying for an apprenticeship, the length of stay in Germany, and apprenticeship supply have no significant influence. There are no differences with regard to refugees' gender, age, and nationality (BA/BIBB-Fluchtmigrationsstudie 2016; Matthes et al., 2018, p. 35).

Comparing German and foreign apprentices, apprentices who arrived as refugees are predominantly male, older, have more often no or a lower secondary school-leaving certificate, do an apprenticeship more often in occupations with allocation problems (men), have a higher rate of prematurely terminated apprenticeship contracts (*Vorzeitig gelöste Ausbildungsverträge*) and have a lower success rate on the final examination (Kroll & Uhly, 2018, p. 17ff.).

In sum, previous findings underline the importance of Germany-specific cultural, human, and social capital for the vocational integration of refugees – es-

pecially German language skills, work experiences in Germany, and a German school-leaving certificate. However, little is known about refugees' transition from the prevocational preparation class to an apprenticeship or an alternative pathway – although these classes are the first point of contact with the German education system and the starting point for their further educational pathways.

This paper addresses this deficit by first describing young refugees' pathways after taking a prevocational preparation class. Second, we analyze which factors influence the successful transition from a prevocational preparation class to a regular vocational preparation class or to other educational pathways.

### 3. Educational transitions: Theoretical considerations

For the integration of young migrants and refugees, education plays an important role. Schools convey language skills, societal norms and values (Karakasoglu, 2013, p. 127; also Euler & Nickolaus, 2018) and can foster identification with their new host land. Furthermore, knowledge and competencies certificated by schools are crucial for their integration into the labor market (Kalter, 2006; Kalter & Granato, 2018), linguistic and cultural integration, and life chances (Diehl, Hunkler, & Kristen, 2016). Small ethnic differences in education can result in far-reaching ethnic inequalities during the life span.

In structured and strongly segmented education systems such as in Germany, transitions are of particular importance, since educational pathways are less easily corrected once taken due to limited permeability. Generally, the transition to an educational pathway is affected by students' parental background, which includes economic, cultural, and social capital (Bourdieu, 1983). Following sociological value expectancy theory (Boudon, 1974), students' social background directly influences their skills and competencies (primary effects of their social background) as well as their expectancy of success and the costs and benefits of different educational pathways (costs, status maintenance motive, value of education, chances of vocational education and jobs) that in turn shape their educational choices (secondary effect of the social background).

It has been shown (Diehl et al., 2016; Dollmann, 2017) that competencies and educational choices are influenced not only by students' social background but also by their ethnic background, which affects, above all, their skills in the host country's language. The knowledge of the language of the host country is in the focus of Esser's (2001) notion of "culturation", which is the process of gaining specific knowledge and abilities that facilitate daily life in the host country (Esser, 2001, p. 8f.)<sup>1</sup>. The acquisition of language skills in the host country depends on the three

1 Esser distinguishes a total of four dimensions of integration: culturation, placement, interaction, and identification. "Placement" means taking up positions in socially relevant areas, such as the labor market or the education system (Esser, 2001, p. 9f.). "Interaction" refers to migrants' building of social contacts, which, in turn, can foster their integration in other areas – most importantly, the labor market (ibid., p. 10ff.). "Identifi-

“E”s: “Exposure to the host country language, Efficiency in learning a new language, and Economic incentives for learning the new language” (Chiswick & Miller, 2015, p. 228). The three Es reflect the conditions of the individuals themselves (e.g., human capital, age, and aspirations), the conditions of the ethnic community (e.g., family networks), and the conditions in the host country (e.g., education system) (Esser, 2001, 2006). The secondary effect of ethnic background is related to migrants’ higher educational aspirations (Dollmann, 2017; also Becker, 2010) because migrants are, in many cases, a positively selected group and often transfer their aims of advancement and of education to their children. Furthermore, they tend to aspire to higher school-leaving certificates as a means of combating discrimination in the labor market. Another – this time negative – secondary effect of ethnic background is the often limited knowledge of the education system and the lower availability of information about possible educational pathways and regulations regarding transitions (Dollmann, 2017).

By focusing on the impact of social or ethnic background on educational transitions, factors on the individual level apart from skills and competencies, such as students’ personality, are not yet fully taken into account even though they also matter. The psychological expectancy-value theory of motivation (Eccles et al., 1983) has similar basic assumptions to those of Boudon (1974) and Bourdieu (1983) regarding the importance of different aspects of the student’s family background (e.g., cultural milieu) and individual characteristics (e.g., aspirations) for achievement-related performance and choices. However, the focus is on individual psychological aspects and their effects. The student’s affective reactions and memories, goals and general self-schemas (e.g., self-concept of one’s abilities, short- and long-term goals, and perceptions of task demands), his/her interpretation of experiences, expectations of success and perception of the socializer’s beliefs, expectations, attitudes and behaviors as well as the subjective task value mediate the influence of the student’s background. The student’s achievement-related choices and performance (in our case, the transition) depend less on the objective value of the choice of an educational pathway but more on the relative subjective value compared to alternative educational pathways (see Heckhausen & Heckhausen, 2010, p. 454).

In sum, several indicators of the students’ family background, namely, their human, social, economic, and cultural capital, and their personality, motivations, aspirations, and experiences need to be taken into account when analyzing educational transitions. For migrants, their ethnic background additionally affects resources available to a student as well as educational transitions. Refugees constitute a heterogeneous group and originate from conditions unique from those experienced by other migrants. It remains an open question how the educational skills and certificates gained in their country of origin help for their educational career in the host country. The same is true for migrants’ social and cultural

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cation” is measured as migrants’ identification with the social systems and their feeling of belonging to the host society (ibid., p. 12ff.). The four dimensions are related to each other and are mutually dependent.

resources related to their country of origin. Through transmission processes, parental education shapes the child's acquisition of skills and knowledge. For refugees, this process of intergenerational transmission can be expected to be more disruptive since family networks have been uprooted during the migration process. Since their parents acquired their education in a different context, they may also be less helpful in the host society. For the expectancy of success as well as the assessment of the costs and benefits of different educational pathways, refugees (like all students) need knowledge about the education system and the labor market in the host country. However, this knowledge that is key for making the "right" choices may be difficult for them to acquire.

#### **4. The German context: Young refugees in vocational education and training**

Vocational education and training is a strong backbone of secondary education in Germany, offering several tracks with basic trainings, apprenticeships, and academic colleges. Doing an apprenticeship is key to obtaining a qualified nonacademic job in Germany (Bergseng, Degler, & Lüthi, 2019). An apprenticeship offers a standardized qualification and training and often leads to permanent employment (BIBB, 2020, p. 258f.). Therefore, doing an apprenticeship can be seen as the first step toward integration into the labor market. For refugees in particular, it can also increase the chances of being allowed to legally stay in Germany (see below).

One part of vocational education and training is the so-called "transition system", which includes partially qualifying training classes for an intermediate school-leaving certificate and vocational qualifications. Other classes are more "preparatory" in nature and offer vocational orientation but not the option to acquire a school-leaving certificate (Euler & Nickolaus, 2018, p. 527). In response to the large influxes in 2015 and 2016, prevocational preparation classes for young refugees were established in vocational schools as part of the transition system. These classes are the most important source of German language instruction for refugees (Baumann & Riedl, 2016). Additionally, students gain access to important information about the education system. They get ready to start an apprenticeship and develop vocational aspirations, which are important preconditions for ending up in an occupation requiring formal training (*Ausbildungsberuf*) that is often considered "appropriate", given refugees' ages and preexisting skills (Baethge & Seeber, 2016; Grabinski, 2018).

In the state of Baden-Württemberg, where we collected our data, prevocational preparation classes for refugees last one year. At the end of the school year, there is a German language level assessment at level A2 or B1 according to the Common European Framework of Reference for Languages (CEFR). When a student successfully completes the language level assessment (usually A2 according to the CEFR), a certificate is granted. These students can remain in the prevocational-

al preparation class to acquire level B1 or B2. Students who do not pass the language level assessment or cannot yet pass it meaningfully (e.g., because of a short duration of attendance when starting school during the year) can repeat the prevocational preparation class (MKJS, 2016, p. 12f.). For the transition from the prevocational preparation class to regular preparation classes that offer the opportunity to achieve a lower secondary school-leaving certificate, young refugees should know the German language at level A2. Even though there are no formal entry restrictions to some of the regular preparation classes with regard to a certain level of German language skills, level B1 is recommended based on previous experience (MKJS, 2018, p. 12).

After the prevocational preparation class, most young refugees attend a regular preparation class that offers the opportunity to obtain a lower secondary school-leaving certificate, as intended by educational policy. This certificate increases the chances that they can find an apprenticeship or move on to upper secondary school and complete a higher school-leaving certificate. Nevertheless, other educational pathways are also an option. For example, it is formally possible (though empirically rare; BIBB, 2020, p. 131) to start an apprenticeship even without a school-leaving certificate.

However, the transition to an apprenticeship is particularly challenging for refugees. First, refugees need sufficient German language skills (ideally at level B2 or higher) – not only to understand their work but also to pass the vocational school part of the apprenticeship<sup>2</sup>. Second, the apprenticeship and/or work permit depends on the asylum status of the refugees. An investment in the apprenticeship of refugees is only worthwhile for companies if they do not have to fear deportation of their apprentices and workers. The so-called “apprenticeship tolerance” (3+2 regulation, *Ausbildungsduldung*) is intended to give both refugees and employers planning security: their stay is secured for the duration of the apprenticeship (usually three years). After successful completion of the apprenticeship, refugees can obtain a two-year residence permit if they can take up a job that corresponds to their apprenticeship. Third, it can be difficult for companies to identify the competences and qualifications that refugees gained in their country of origin. This may be due to missing certificates from the country of origin and to the question of the comparability and transferability of competences and work experiences from the country of origin (Scheiermann & Walter, 2016, p. 15f.; also, Ebbinghaus & Gei, 2017). Apart from these specific conditions for refugees, the supply-demand ratio of free apprenticeship places generally varies by region, vocational sector, and occupation (BIBB, 2020).

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2 In Germany, apprenticeships in many occupations are organized in the “dual system” and last for two to three and a half years, depending on the occupation. The apprenticeship is carried out in two places of learning: at the workplace and in a vocational school. Instruction at the vocational school takes place on either one or two days per week or in blocks every few weeks. The rest of the time, the apprentices work in their company and are instructed there.

Starting out from the findings of previous studies, the theoretical assumptions outlined above, and the institutional context, we expect the transition from a prevocational preparation class to a regular vocational preparation class or another educational pathway to be shaped by the refugees' educational background (i.e., their and their parents' education achieved before migration), skills (cognitive abilities and language skills), personality, aspirations, and social capital in Germany (ties to majority members).

## 5. Data and methods

To answer our research questions on the transition after the prevocational preparation class to a regular educational pathway, data from the first two points of measurement (t1 and t2) of a longitudinal survey with a total of four points of measurement<sup>3</sup> among young refugees in prevocational preparation classes were used.

Sample and procedure at t1: First, we selected all vocational schools with at least one prevocational preparation class in the southwestern district of Freiburg (n = 52). This district is located in the German federal state of Baden-Württemberg. Second, the school principals were invited to participate in the study. Finally, 22 school leaders agreed to participate with their classes. Members of the research team carried out the data collection in all prevocational preparation classes at these 22 schools between May and July 2017 using the schools' computer labs. All refugees who were present at the school on the agreed day participated voluntarily (only one refusal; in total: n = 635). Because of erroneous class lists and official information, the total population size is not known, and a participation quota cannot be calculated.

Procedure at t2 (March to August 2018): The 22 schools informed the research team how many of the students that were surveyed at t1 were still learning at the school and which students had left (e.g., transition to apprenticeship, work, other schools, moving, drop out, unknown). For those who were still at school, data collection was quite similar to the procedure at t1. If the students were only absent from school that day (e.g., due to illness), a short paper-pencil questionnaire was left for them and returned to the research team by postal service. Those who did not send back the short paper-pencil questionnaire or who left the school after the prevocational preparation class received a link by email and/or smartphone to a short online questionnaire (consent to contact and the collection of contact data was given at t1). A total of 228 refugees were reached in the schools for the second survey, and 34 refugees returned the short paper-pencil questionnaire. The link for the short online questionnaire was sent to 240 refugees (two reminders were sent, and a voucher worth €20 was offered as an incentive to participate)<sup>4</sup>. Eighty-two individuals filled out this questionnaire, and 71 were analyzed (11 refugees filled out

3 The third survey took place in 2019 through individual qualitative interviews with 32 young refugees. The fourth survey will be conducted in 2021.

4 No contact data were available for 144 refugees.

the short paper-pencil questionnaire and the short online questionnaire because the paper-pencil questionnaires were received later. In these cases, the short paper-pencil questionnaire was evaluated). The majority of these refugees still attended school (86%). Based on this fact and the drop-out analyses (Table 1), it can be assumed that those who did not participate in the second measurement did not significantly differ from those who did participate.

The *longitudinal sample* consisted of 333 students (longitudinal participation rate: 52%). Eighty-two percent of the students were male, and 18 percent were female. This gender distribution fits the official statistics almost perfectly (BAMF, 2017, p. 22). The mean age at t1 was 18.6 years (SD = 2.27, n = 321), with a range from 15 to 30 years. Most refugees came from Syria (30%) and Afghanistan (24%), as well as from Iraq (11%), Eritrea (6%), and Gambia (5%). Dropout analyses revealed no significant differences in aspects such as German language skills, cognitive ability, personal characteristics, aspirations, networks, or educational background between young refugees who participated in the second measurement and those who did not.

To handle missing values, a multiple imputation with 20 datasets was conducted with SPSS 27. The method was a fully conditional specification (an iterative Markov chain Monte Carlo; MCMC) that uses all variables described in Table 2 (single items instead of scales) and further variables with substantial correlations with these variables (e.g., secondary virtues punctuality and regular attendance at school, self-assessment of German language skills) as predictors in a linear regression analysis. By means of predictive mean matching, the imputed values were compared with the next observed value, causing the data to be imputed within the permissible value ranges of the variables. All cases at t1 were used for the multiple imputation, with the following exceptions: Before the multiple imputation was performed, young refugees in a prevocational preparation class with a specialized focus on literacy were excluded because they were eligible only to make the transition to a regular prevocational preparation class (n = 7). Refugees with an unrealistically long (n = 12) or a very short (fewer than six months; n = 23)<sup>5</sup> duration of stay in Germany were also excluded to prevent possible bias. For example, a repetition of the prevocational preparation class after only two months of school attendance would be counted as “repetition”, even though not even half a school year had been completed. This repetition is not “real” in the sense of the analyses. Moreover, those refugees who left the education system at t2 were excluded (n = 10) because they were not the focus of the analyses and were not included in the linear probability model (see below). In total, data from n = 583 refugees were used for the multiple imputation. Overall, the longitudinal data for the analyses here consist of n = 302 young refugees.

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5 Regardless of the status of their asylum application, refugees usually have the obligation or right (depending on their age) to attend school three months after coming to Germany. School attendance can begin in the middle of the school year and even in the last quarter.

Table 1: Drop-out analyses: Comparison of participants only of first measurement and longitudinal sample (original data)

Variable (t1)	Range	Only t1			Longitudinal sample			Difference		
		M	SD	N	M	SD	N	t	p	d
German language skills	WLE	0.79	1.44	289	0.88	1.41	326	-0.836	.403	-0.068
Cognitive ability	WLE	-0.36	1.56	285	-0.24	1.51	310	-0.907	.365	-0.074
Achievement motivation	1 = Is not true at all 6 = Is absolutely right	5.52	0.60	235	5.61	0.47	249	-1.818	.070	-0.166
Self-efficacy	1 = Strongly disagree 6 = Strongly agree	4.94	0.81	95	4.99	0.58	96	-0.567	.571	-0.082
Short-term aspiration: German school leaving certificate	0 = No / Uncertain 1 = Yes	0.80	0.40	267	0.84	0.37	300	-1.190	.235	-0.101
Long-term aspiration: live in Germany	0 = No / Uncertain 1 = Yes	0.81	0.40	288	0.78	0.42	312	0.900	.369	0.073
Contacts to German students	1 = Never / no Germans known 5 = Every day	2.83	1.35	272	2.75	1.30	284	0.721	.471	0.061
Contacts to Germans helping refugees	0 = No 1 = Yes	0.50	0.50	259	0.54	0.50	275	-0.926	.355	-0.080
Education in country of origin	School years	7.40	3.67	261	7.64	3.35	314	-0.816	.415	-0.069
Education of father <sup>a</sup>	1 = No diploma 4 = University Degree	2.22	1.14	191	2.27	1.14	237	-0.491	.624	-0.043
Education of mother <sup>a</sup>	1 = No diploma 4 = University Degree	1.96	1.08	189	1.97	1.07	233	-0.107	.915	-0.011

Note. <sup>a</sup> Without category “I don’t know”.

*Instruments and variables:* Questionnaires and instructions were available in seven languages (Arabic, English, Farsi, French, German, Pashto, and Tigrinya). The first point of measurement included an online test of cognitive ability (CFT 20: subtests “series” with 24 multiple-choice items; Weiß, 1980), an online test of German language skills at level A1 according to the CEFR (30 multiple-choice items with three distractors; developed in-house; EAP-reliability: t1 = 0.89), and an online questionnaire. If the young refugees did not have sufficient computer skills, they took paper-pencil tests and filled out a short version of the questionnaire by hand. The instruments of the study were piloted in advance with 111 refugees in seven prevocational preparation classes in four vocational schools in another

er administrative district in Southwest Germany. The aim of the second survey was the analysis of changes between the two points of measurement as well as the investigation of transitions to apprenticeship or to other educational pathways after the prevocational preparation class. For the second point of measurement, questions on changes, e.g., in education, were added to the questionnaire.

To empirically model the educational transitions of young refugees, a *linear probability model* (with Mplus version 8, Muthén & Muthén, 1998–2017) proves the influence of several predictors of the first point of measurement on the educational pathway at the second point of measurement. The educational pathway at the second point of measurement as the *dependent variable* has several categories for different options in the education system (e.g., transition system, upper secondary school) or the labor market (e.g., internship, apprenticeship) (see Table 3). Due to insufficient cell occupancy of the individual connections to prevocational preparation classes, these are summarized in the linear probability model with a dichotomous variable: repetition of the prevocational preparation class for refugees (coded as 0) or a regular educational pathway (coded as 1) (see Table 4). Only those students who remained in the education system are of interest – either as repeaters of the prevocational preparation class or as those who have made the transition. Those who left the education system, for example, to work, are not considered in the linear probability model.

*Independent variables:* We use the education in the refugees' country of origin (school years) and their parents' highest educational qualification as indicators for the educational background. The scores of the tests of cognitive ability and German language skills are used as performance indicators. Achievement motivation and self-efficacy serve as indicators for the personalities of the young refugees. Contacts with German students and contacts with people helping refugees represent potential sources of information on the education system. These persons can also offer suggestions for possible educational pathways and provide their own contacts and networks for the realization of an educational aspiration of the refugees (social capital in the host country). The plan to achieve a German school-leaving certificate (no or uncertain versus yes) is used as a short-term educational aspiration. Due to insufficient cell occupancy, the categories "No", "Maybe", and "I don't know" are combined. The desire to stay in Germany forever versus the desire to live in a different country or yet not having plans serve to indicate their long-term life aspirations. Gender, age, the duration of stay in Germany until the first point of measurement, the time between the two points of measurement, and the country of origin function as *control variables*. Due to insufficient cell occupancy, only Afghanistan, Iraq, and Syria can be shown individually. To account for the nonlinearity of the dependent variable, a binary logistic regression analysis was also calculated as a robustness check. Its results point in the same direction as the linear probability model.

Table 2: Descriptive statistics of the variables used in the linear probability model

Operationalization	Variable	min. & max. / specification	%	Pooled M (SD) <sup>a</sup>
Class at t2	<i>Dependent variable (second point of measurement t2)</i>			
		0 = Pre-vocational class 1 = Other regular educational pathway	38% Pre-vocational class 62% Other educational pathway	
	<i>Independent variables (first point of measurement t1)</i>			
German language skills	Test score <sup>b</sup>	-4.80 to +4.68		0.97 (1.37)
Cognitive ability	Test score <sup>b</sup>	-4.76 to +3.69		-0.19 (1.47)
Achievement motivation	Scale with 4 items: $\alpha = .73^c$	1 = Is not true at all. 6 = Is absolutely right.		5.60 (0.49)
Self-efficacy	Scale with 6 items: $\alpha = .82^e$	1 = Strongly disagree. 6 = Strongly agree.		4.88 (0.58)
Short-term aspiration	Plan to achieve German school-leaving certificate		82% Yes 18% No / Uncertain	
Long-term aspiration	Preferred country to live in		78% Germany 22% Not in Germany / I don't know.	
Contacts to German students	Speak with German students in school	1 = Never / know no German students 5 = Every day		3.48 (1.71)
Contacts to Germans helping refugees		0 = No 1 = Yes	47% No 53% Yes	
Education in country of origin	School years	0 to 14 school years		7.64 (3.37)
Highest education of parents			19% I don't know. 24% No diploma 16% Lower ranked diploma 20% Higher ranked diploma 22% University degree	

Table 2 continued

Table 2 continued

Operationalization	Variable	min. & max. / specification	%	Pooled M (SD) <sup>a</sup>
<i>Control variables (first point of measurement t1)</i>				
Gender			81% Man 19% Woman	
Age		15 to 30 years		18.63 (2.35)
Time in Germany until t1	Duration of stay in Germany	7 to 43 months		18.92 (5.82)
Time between t1 & t2		8 to 14 months		11.01 (1.53)
Country of origin			24% Afghanistan 11% Iraq 30% Syria 34% Other country of origin	

Notes. <sup>a</sup> Longitudinal sample: n = 302; Multiple imputation (n = 20 datasets). <sup>b</sup> Weighted likelihood estimate WLE, generated with ACER ConQuest version 2.0 (Wu, Adams, & Wilson, 1997). <sup>c</sup> Original data t1 full sample (n = 484); Example: I am willing to study a lot for German class. <sup>d</sup> Original data t1 full sample (n = 408); Example: I try to do all tasks very thoroughly. <sup>e</sup> Original data t1 full sample (n = 191); Example: I am able to realize my intentions and goals.

## 6. Results

*Descriptives of the transitions:* As Table 3 shows, 47 percent of the refugees entered a regular vocational preparation class after the prevocational preparation class for refugees to obtain a lower secondary school-leaving certificate. In contrast to this successful “next step”, 37 percent had to repeat the prevocational preparation class. A small proportion (8%) attended schools that led to an intermediate or an upper secondary school-leaving certificate. The direct transition to an apprenticeship or to an introductory training, which can be credited to the apprenticeship if successfully completed, was realized by 5 percent of the refugees. Two percent attended a language course to increase their German language skills. The results show that almost all of the refugees in the longitudinal sample remained in the vocational education and training system.

Table 3: Educational pathway or current occupation at the second point of measurement (original data)

Educational pathway	n	%
<i>Within education system</i>		
Repetition of prevocational preparation class	105	36.8
Class for lower secondary school-leaving certificate	133	46.7
Class for intermediate school-leaving certificate	21	7.4
(Vocational) upper secondary school	1	0.4
Introductory training	1	0.4
Apprenticeship	14	4.9
<i>Outside education system</i>		
Internship	1	0.4
Work	3	1.1
Language course / Adult Education Center	6	2.1
Total	285	100.0

*Notes.* Missing Values: n = 27. Exclusion due to very short (fewer than six months) or unrealistically long duration of stay in Germany or due to attendance of a prevocational preparation class with a specialized focus on literacy: n = 21

*Prediction of transition:* In the linear probability model, only those students who followed an educational pathway (n = 302) are considered. Those who left the system (n = 10) are not included in this analysis. The dependent variable is the educational pathway at the second point of measurement – either the repetition of the prevocational preparation class for refugees or the entry into a regular educational pathway.

**Table 4:** Linear probability model (dependent variable: repetition of prevocational preparation class vs. transition to regular educational pathway; pooled standardized coefficients; multiply imputed data: n = 302)

	$\beta$
<i>Achievement</i>	
German language skills	.465 ***
Cognitive ability	.040
<i>Personality</i>	
Achievement motivation	.054
Self-efficacy	-.036
<i>Aspirations</i>	
German school leaving certificate	.009
Live in Germany	.022
<i>Social capital</i>	
Contacts to German students	.009
Contacts to Germans helping refugees	.119 *
<i>Educational background</i>	
Education in country of origin	-.046
Highest education of parents: Reference: No diploma	
I don't know	.051
Lower ranked diploma	.095
Higher ranked diploma	.045
University degree	.112
<i>Control variables</i>	
Gender	.029
Age	.089
Time in Germany until t1	-.020
Time between t1 & t2	.005
Country of origin: Reference: Syria	
Afghanistan	.056
Iraq	-.102
Other country of origin	.115
Intercept	-.434
<i>R</i> <sup>2</sup>	.322

Notes. \*: p < .05; \*\*: p < .01; \*\*\*: p < .001.

German language skills, as measured by performance on the German test, have a major influence ( $\beta = .47$ ;  $p < .001$ ) on the probability of the transition to an educational pathway other than the prevocational preparation class. Interestingly, refugees' social capital, i.e., their contact with people helping refugees, also increases the probability of this transition ( $\beta = .12$ ;  $p < .05$ ).

Indicators of cognitive ability, personality (achievement motivation and self-efficacy), and educational background (number of school years in the country of origin and highest educational qualifications of parents) have no significant effects on the probability of the transition from the prevocational preparation class to a regular educational pathway and neither do the short-term aspiration to obtain a German school-leaving certificate or the long-term aspiration to stay in Germany. The same

is valid for contact with German students. The control variables also have no significant effects. The model explains 32 percent of the variance.

## 7. Discussion

Given their age, educational background, and legal status, a substantial portion of young refugees in Germany attends prevocational preparation classes at vocational schools. These classes aim to impart German language skills, to provide vocational orientation for students, and are a first step in preparing them for an apprenticeship. Integration into the German labor market through vocational education and training is also desirable from a political perspective. Thus, analyzing the educational transition after these kinds of classes and the next step in refugees' educational careers is important.

According to our study, the overwhelming majority of refugees remained in the vocational education and training system after the prevocational preparation class. Almost 60 percent of our respondents entered the next educational step, mainly a regular vocational preparation class (leading to a lower secondary school-leaving certificate); 37 percent (had to) repeat the prevocational preparation class for refugees, which was most likely a result of insufficient German language skills.

The finding that the majority made the transition into an educational pathway that offers a lower secondary school-leaving certificate and at least one internship fits with other studies showing that (young) refugees want to acquire a German school-leaving certificate (e.g., Liebau & Siegert, 2017) and to do an apprenticeship (Weber & Guggemos, 2018). A German school-leaving certificate and internships are important preconditions for a successful transition to an apprenticeship (Matthes et al., 2018; Stöbe-Blossey, Köhling, Hackstein, & Ruth, 2019). Internships offer information about specific occupations and provide vocational experiences, vocational orientation, and contacts to companies. Refugees can demonstrate their skills as well as their motivation and commitment. Because internships are an integral part of regular vocational preparation classes, refugees who managed to enter these classes increase their chances for an apprenticeship.

One important finding is that the political goal to keep as many refugees as possible in the (vocational) education system for longer is overall achieved, given that the transition to unskilled work does not seem to be an attractive and often chosen alternative for young refugees.

Our second main finding – that German language skills are key in the transition to a regular educational pathway – underscores the importance of language skills for refugees' integration into the education system and labor market (Esser, 2001; Kalter, 2006). It is also in line with the formal regulation of level A2 requirements according to the CEFR.

Contacts to people helping refugees are also positively related to the probability of attending a regular educational pathway. As part of refugees' social capital, they

provide important information and knowledge about the education system and the labor market (Boudon, 1974; Bourdieu, 1983; Esser, 2001). This finding is in line with previous research that points to the importance of mentors for the transition to an apprenticeship and to employment (Matthes et al., 2018).

We did not find support for theoretical assumptions on the influence of personality, motivation, and aspirations on educational transitions (Becker, 2010; Becker, 2017; Boudon, 1974; Eccles et al., 1983; Heckhausen & Heckhausen, 2010). Obviously, the acquisition of the German language as well as first orientation in Germany must first be mastered successfully before other aspirations can be pursued (Stöbe-Blossey et al., 2019, p. 50ff.). In addition, formal regulations for transition that emphasize the importance of German language skills could limit the influence of refugees' personality, motivation, and aspirations on this transition.

According to our study, parents' educational background and the length of schooling in the country of origin do not influence the educational transitions. Education systems in the country of origin are possibly very different from those in Germany such that even parents with higher educational qualifications can only provide limited help and support to their children after migration. In addition, many parents cannot support their children because they are currently learning the German language themselves. Finally, many young learners arrive as unaccompanied minors. In sum, with regard to the transition from prevocational preparation classes to a regular educational pathway, German language skills are crucial compared with all other factors known to influence educational transitions.

Further research should focus on the next steps of young refugees. Only the long-term perspective will show whether refugees succeed in integrating into (vocational) education, the labor market, and society and whether they are able to realize their aspirations. Examining the further educational careers and life paths of displaced children and youth as well as uncovering factors that promote or hinder their integration will be important tasks for educational researchers in the years to come. This would also contribute to the question of whether previous findings and theoretical assumptions on the educational pathways of students with a migrant background can be transferred to the group of refugee students.

Because the study took place in only one district in Germany, the transferability of the findings to other federal states in Germany or even to other countries cannot be taken as granted even though there is little reason to assume that the results look substantively different for other parts of the country. What is more important are sample selection effects that are related to the fact that many students in the respective classes were absent when we collected our data. Those students included in our survey can thus be expected to be "positively selected" in terms of their school success in many regards. And finally, analyses focus on the transition from prevocational preparation classes to another educational pathway. No conclusions can be drawn in this paper about those who left the education system or had to leave it, for example, to work or to leave Germany.

Despite these limitations, our study provides valuable information about the schooling of young refugees in the context of vocational education and training.

Learning the German language is of enormous importance for educational success as well as for integration. For good reason, the main focus of prevocational preparation classes is teaching the German language. However, other subjects (e.g., mathematics) as well as vocational orientation should not be disregarded. They are also crucial for basic vocational education and the choice of a suitable apprenticeship and occupation. In addition, the question arises of how the learning of subject content and of technical language can be linked to the acquisition of the German language (in the sense of integrated learning of language and subject; Settlemeyer, Münchhausen, & Schneider, 2019).

Furthermore, schools not only impart knowledge and skills but also contribute to the social integration and the social capital of refugees by creating contact opportunities between local and refugee youth. This issue touches on the question of whether refugee children and youth learn better in integrated or separated classes and how long they should remain in the latter (Karakayali, zur Neiden, Kahveci, Groß, & Heller, 2017). It seems important that refugees, at the latest after their transition to a regular educational pathway, attend classes together with local youths to integrate into the broader society.

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