ZA5084 - ZA5086

Immigrant children and youths in the German and Israeli educational systems

[Kinder und Jugendliche mit Migrationshintergrund im deutschen und israelischen Bildungssystem]

- Methodological Report -

Technical Report

Immigrants' Children in the German and Israeli Educational Systems

Part of the German-Israeli Research Consortium: Migration and Societal Integration

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Juli 2012

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1 Technical Data

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Funding: Federal Ministry of Education and Research, Germany (Bundesministerium für Bildung und Forschung – BMBF), Registration Number: 01GWS070

Period: April 2005 – March 2010

Status: Completed

Links: www.migration.uni-jena.de

Data: Quantitative data, own field research, three-wave-panel:

- First Wave: Standardized face-to-face interviews
- Second Wave: Standardized computer assisted telephone interviews (CATI)
- Third Wave: Standardized computer assisted telephone interviews (CATI)

Countries: Germany, Israel

2 Overview

The project "Immigrants' Children in the German and Israeli Educational Systems" is one project of the German and Israeli Research Consortium and a project conducted in cooperation between the Universities of Leipzig, Mannheim and Tel Aviv. The German-Israeli Research Consortium "Migration and Societal Integration" studies acculturation and its consequences for psychosocial adjustment of Diaspora migrants in Israel and Germany. The Research Consortium comprises several Universities in Germany (Universities of Berlin, Bielefeld, Bremen, Chemnitz, Jena, Leipzig and Mannheim) and Israel (Universities of Haifa, Jerusalem and Tel Aviv). It is funded by the Federal Ministry of Education and Research (BMBF) in Germany. Coordination Director of the Research Consortium is Prof. Dr. Rainer Silbereisen, University of Jena, Germany.

The project "Immigrants' Children in the German and Israeli Educational Systems" studies children and adolescents with and without migration background in the educational systems of Germany and Israel. It focuses on studying recent immigrant groups stemming from the Former Soviet Union (FSU) – Jewish and Ethnic German immigrants – in comparison to "older" immigrant groups – persons with Turkish migration background in Germany and Mizrahi in Israel – and the respective reference population (Germans without any migration background in Germany and Ashkenazim in Israel).

In both countries, the persistence of ethnic educational inequalities is closely linked to lower educational achievement of immigrants and their descendants. These ethnic inequalities are reproduced particularly at crucial transitions within the education systems – i.e. when persons are forced to make long-term decisions about future paths of education and life in general.

The comparison between the institutional settings of Israel and Germany yields a number of strategic advantages. Germany and Israel share several important characteristics with respect to their immigration and integration policies. The setting is similar in the sense that FSU migrants are privileged in both countries, and that they come from a comparable cultural background, allowing for a comparison of integration patterns in two different institutional contexts. In terms of the structure of their educational systems, however, important differences exist. A basic institutional difference important to the reproduction of educational inequality is the early selection that takes place in Germany after four years of primary schooling, while no such regulation exists in Israel. It is the combination of institutional commonalities and differences that is most promising for a comparative analysis that investigates mechanisms of ethnic educational differentiation.

In each country, we study immigrants' decision patterns at several educational transitions in their educational careers and compare these patterns to those of the native population. We particularly emphasize various resources (economic, social and cultural) that a successful educational career requires. We thereby pay special attention to intergenerational transmission of resources from parents to children and study the ways in which disparities in the disposal of these resources may contribute to differences in educational behavior.

In order to asses the impact of resources and to study educational transition in detail, students and their mothers are interviewed twice (two-wave panel), some students are even interviewed three times (three-wave panel).

The first wave is a face-to-face interview with student and their mothers conducted during the school year before the educational transition. It comprises rich measures for competencies, cultural and social capital as well as specific parameters of the educational decision process. The second wave (one year later) captures the outcome of the educational decision – the educational transition – and repeatedly measures the endowment with relevant resources using computer-assisted telephone-interviewing techniques (CATI interview with the mother or the student). Since for a considerable part of the students, contrary to expectation no transition occurred between the first and the second wave, a third wave one year later was additionally conducted to capture information not yet available in the second wave.

3 Survey Design

3.1 Research Question

The project "Immigrants' Children in the German and Israeli Educational Systems" studies children and adolescents with and without migration background in the educational systems of Germany and Israel. It focuses on studying recent immigrant groups stemming from the Former Soviet Union (FSU) – Jewish and Ethnic German immigrants – in comparison to "older" immigrant groups – persons with Turkish migration background in Germany and Mizrahi in Israel – and the respective reference population (Germans without any migration background in Germany and Ashkenazim in Israel).

In Germany, (a) Ethnic German immigrants from the FSU, (b) Jewish immigrants from the FSU and (c) students with Turkish migration background are compared to (d) native Germans. In Israel, (a) students of Sephardic descendent (whose parents or grandparents emigrated from counties of Northern Africa and the Middle East) and (b) students stemming from the FSU are compared to (c) native Ashkenazi students.

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3.2 Population and Group Definition

Table 3.1 gives an overview on the groups of interest and their definition in Germany and Israel.

In Germany, the assignment to a group is based on the countries of birth of parents and grandparents. A student belongs to a particular group if the parents and grandparents were born in the former Soviet Union/Turkey even if the student him-/herself was born in Germany. Hence, neither nationality nor place of birth of the child itself is relevant for group assignment, but only ancestry. Details on each group definition are shown in Table 3.2.

In Israel, the assignment to a group is based on the origin of the mother. Therefore, mothers' country of birth is relevant for group assignment only.

Table 3.1: Groups of interest

Groups	Germany	Israel
Reference group	Germans (without migration background)	Ashkenazi Israelis
Immigrants from the FSU	Ethnic Germans ("Aussiedler") Jewish quota refugees ("Kontingentflüchtlinge")	Jews from the FSU
"Old" Immigrant Group	Turkish Origin	Mizrahi Israelis

Table 3.2: Group definition in Germany

Group	Definition
German	Students, whose parents and grandparents were born in Germany (German ancestry)
Turkish Origin	Students of first, second and third generation (Turkish ancestry) • First generation: Students born in Turkey and migrated to Germany before entering grade 1 (transition 1) or entering grade 5 (transition 2 and 3). Parents born in Turkey. • Second generation: Students born in Germany. Parents born in Turkey. • Third generation: Students born in Germany. Parents born in Germany, but of Turkish ancestry (Grandparents born in Turkey).
Ethnic Germans from the FSU ("Aussiedler")	Students of first and second generation (FSU ancestry + status "Ethnic German") • First generation: Students born in one country of the FSU and migrated to Germany with the status of entry "Ethnic German" before entering grade 1 (transition 1) or entering grade 5 (transition 2 and 3). Parents born in one country of the FSU. • Second generation: Students born in Germany. Parents born in one country of the FSU and migrated to Germany with the status of entry "Ethnic German".
Jewish Quota Refugees from the FSU ("Kontingentflüchtlinge")	Students of first and second generation (FSU ancestry + status "Jewish quota refugee") • First generation: Students born in one country of the FSU and migrated to Germany with the status of entry "Jewish quota refugee" before entering grade 1 (transition 1) or entering grade 5 (transition 2 and 3). Parents born in one country of the FSU. • Second generation: Students born in Germany. Parents born in one country of the FSU and migrated to Germany with the status of entry "Jewish quota refugee".

3.3 Transitions

Three main transitions in a students' educational career in the school systems of Germany and Israel are surveyed. At each transition, we focus on ethnic differences in academic performance (in terms of standardized achievement tests) and ethnic differences in educational transition behavior.

3.3.1 Germany

Figure 3.1 gives you an overview on the transitions of interest in Germany and Israel.

First Transition (Grade 4)

The first transition from primary to secondary school takes place after grade 4. After four years of primary education, students choose between three secondary school forms: Lower secondary

school ("Hauptschule"), intermediate secondary school ("Realschule") and upper secondary school ("Gymnasium"). In addition, some federal states in Germany offer comprehensive schools ("Gesamtschulen") where all school forms are integrated into one. Lower secondary school leads to a minimum qualification, while intermediate secondary school ends with a medium range qualification. Both degrees – a lower secondary school certificate ("Hauptschulabschluss") and an intermediate secondary school certificate ("Realschulabschluss") – prepare for a vocational career. The Gymnasium leads to "Abitur", the general qualification allowing for university entrance. The transition from primary to secondary school after fourth grade is the most important transition in the educational career of a young person's life because it early channels students into certain educational careers.

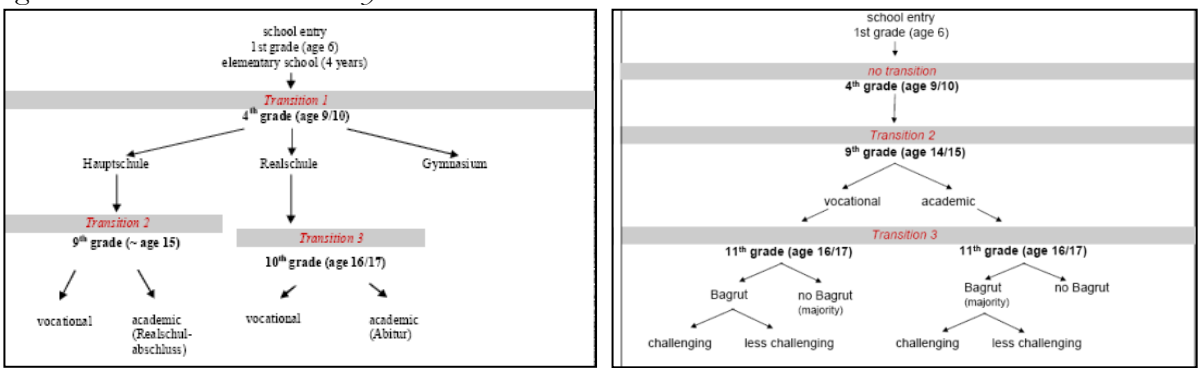
Second Transition (Grade 9)

A second transition takes place after grade 9 for students attending lower secondary schools and comprehensive schools. These students complete lower secondary school and decide whether to invest another year or two in order to receive an intermediate secondary qualification or whether to start a vocational training. However, for the majority of comprehensive school ninth graders, this question is not important since they just continue school and have to decide about their future path as tenth graders at earliest.

Third Transition (Grade 10)

After grade 10 and a successful completion of intermediate secondary school, students decide whether to enter upper secondary school (or a similar educational track, for instance, technical secondary school) in order to receive general qualification that allows for university entry or whether to leave school and start a vocational training.

Figure 3.1: Transitions in Germany and Israel



3.3.2 Israel

First Transition (Grade 4)

Israeli fourth graders do not face an educational transition between grade 4 and 5 since Israel has a comprehensive school system without any differentiation until grade 9.

Second Transition (Grade 9)

In Israel, the first transition takes place after grade 9. At this point, students choose between a general (academic) and a professional (technical) educational path. The general (academic) path prepares for university studies and leads to an exam of general qualification allowing for university entrance. The technical path consisting of preparatory professional training results in the acquisition of a technical diploma. This diploma does not qualify for university entrance, thus being less valued in comparison to the academic alternative. Both qualifications bear the title of "matriculation exam" (Bagrut).

Third Transition (Grade 11)

Another crucial transition in the educational career takes place after grade 11. Israeli students have to decide whether to pass a final examination ("Bagrut"). Additionally, they have to choose between a less demanding "technical certificate" (that is comparable to a vocational diploma in Germany) and a "matriculation examination" allowing for university entrance.

3.4 Waves and Interview Modes per Wave

In order to asses the impact of resources and to study educational transition in detail, students and their mothers are interviewed twice (two-wave panel), some students are even interviewed three times (three-wave panel). Table 3.3 gives an overview on the interview modes per wave.

First wave

The first wave is a face-to-face interview with student and their mothers conducted during the school year before an educational transition. It comprises rich measures for competencies, cultural and social capital as well as specific parameters of the educational decision process.

Table 3.3: Interview methods per wave and transition

Transition	Grade	1st wave		2nd wave	3rd wave
		Household survey	School survey (only Germany)		
1st	*4*	Face-to-face interviews with children and mothers	Paper-pencil interviews with children, face-to-face or CATI interviews with mothers	CATI interviews with mothers (only Germany)	
2nd	*9*	Face-to-face interviews with adolescents and mothers	Paper-pencil interviews with adolescents, face-to-face or CATI interviews with mothers	CATI interviews with adolescents	CATI interviews with adolescents (GE only)
3rd	*10 (GE) 11 (IL)*	Face-to-face interviews with adolescents and mothers	Paper-pencil interviews with adolescents, face-to-face or CATI interviews with mothers	CATI interviews with adolescents	CATI interviews with adolescents (GE only)

Second wave

The second wave (one year later) captures the outcome of the educational decision – the educational transition – and repeatedly measures the endowment with relevant resources using computer-assisted telephone-interviewing techniques (CATI interview with the mother or the student).

Third wave

Since for a considerable part of the students in Germany, contrary to expectation no transition occurred between the first two waves, a third wave one year later was additionally conducted to capture information not yet available in the second wave. A considerable part of ninth graders in comprehensive schools did not pass the final exam at the end of the school year, but planned to do so one year later. Moreover, some students in both grade 9 and 10 did not experience a clear transition to further education or vocational training. Instead, they were still in a transient situation, for instance, in a vocational preparatory school year. Hence, a third wave was planned in order to receive detailed information on the transition that could not have been captured in the second wave.

3.5 Sample Size

Table 3.4 shows the planned sample size for Germany and Israel per group and transition (at the beginning of the project). For every transition and target group we aimed at 200 families in Germany, except for Jewish Quota Refugees at transitions 2 and 3. In Israel, the respective target numbers are 300 FSU immigrant families and 200 Mizrahi and Ashkenazi Israelis. In sum, interviews with a total number of 3,200 were planned.

Table 3.4: Planned sample size for Germany and Israel

	Transition			
	1 (4th grade)	**2 (9th grade)**	**3 (10th/11th grade)**	**Total**
Germany				
FSU Ethnic Germans	200	200	200	600
FSU Jewish quota refugees	200	-	-	200
Turkish origin	200	200	200	600
Native Germans	200	200	200	600
Total	800	600	600	2,000
Israel				
FSU immigrants	300	300	300	900
Mizrahi and Ashkenazi Israelis	200	200	200	600
Total	500	500	500	1,200

4 Sampling

4.1 Germany

4.1.1 Sampling Population

The basic population covers all students attending grade 4 of primary schools as well as students attending grade 9 and 10 of one of the following secondary school forms: Lower secondary schools, intermediate secondary schools, combined lower and intermediate secondary schools, compulsory schools and combined lower, intermediate and upper secondary schools. The secondary school forms upper secondary school ("Gymnasium"), schools for special needs ("Förderschule") as and private schools were excluded from the sampling population.

Furthermore, only students of the four groups of interest are part of the sampling population: Native Germans, Ethnic Germans from the FSU, Turkish Origin or Jewish Quota Refugees from the FSU (see table 3.2 for details).

4.1.2 Problems Identifying the Sampling Population

Various problems emerged during the identification of the immigrant groups:

1. Ethnic Germans: Ethnic Germans receive German nationality upon arrival in Germany. Consequently we cannot separate them from native Germans using nationality only. In order to identify them correctly in resident lists, we need information on countries of birth of both parents. However, knowledge about parents' countries of birth is only part of the story because we need to know immigration status when they entered Germany in order to distinguish them from other immigrants form the former Soviet Union who did not arrive in Germany as Ethnic Germans. However, resident lists do not contain this information. Therefore, it is necessary to conduct screening interviews in order to ask potential respondents about their immigrant status.

2. Jewish Quota Refugees from the FSU: Jewish Immigrants from the former SU keep their FSU-nationality until they get naturalized. Consequently, some possess German nationality. Additionally, resident lists do not contain information on religious affiliation and immigration status when entering Germany. As for Ethnic German respondents, screening interviews are necessary to ensure that all group characteristics are fulfilled.

3. Turkish origin: Similar problems arise when sampling respondents of Turkish origin. Only taking nationality into account would lead us to underestimate the real number of persons with Turkish origin. When Turks possess German nationality, they can only be identified by asking for the nationality of their parents and/or countries of birth of parents and grandparents in screening interviews.

Because of those severe problems in identifying target persons, we use various methods, which are described in detail in the following part.

4.1.3 Pretest of Different Sampling Methods

Before making the final decision on the sampling strategy, we compared advantages and disadvantages of two alternative sampling strategies for drawing an appropriate random sample for the selected groups: (a) Sampling via registration offices and (b) Sampling via schools.

a) Sampling via Registry Offices

First, a pre-test of a random sampling strategy obtained from the registration office in Cologne (North Rhine-Westphalia) was conducted including the following steps:

- Sorting of data: Exclude cohorts not belonging to age groups under investigation, persons with any other nationality than German, Turkish, FSU country
- Identifying procedure: Age cohorts, assignment of countries of birth to birth places (toponomastic)
- Pre-classification of groups
- Matching of telephone numbers
- Telephone screening

The pretest was conducted between 8th and 31st of March 2007. Eight interviewers conducted telephone interviews in Leipzig and eight interviewers conducted personal interviews in Cologne. In general, the identifying procedure of target groups went quite well. Due to our strict definition of the target population, we had small hit ratios when searching for an immigrant target student that is willing to participate in the study.

One important finding refers to group differences in telephone number coverage: 44 per cent for Germans, 19 per cent for Turkish families, 25 per cent for Ethnic Germans and 15 per cent for Jewish Quota Refugees. It seems as if a significant proportion of immigrant groups does not own a telephone or does not register phone numbers. Interview completion rate was 73 per cent when persons were successfully contacted, with native Germans having a higher refusal rate (28 per cent) compared to Turks (15 per cent), Ethnic Germans (16 per cent) and Jewish immigrants (11 per cent).

b) Sampling via Schools

Second, a pre-test was conducted in Mannheim in order to assess sampling via schools. The main goal of the pre-test was to clarify whether a sampling strategy via schools would be a superior option compared to registry office sampling, and whether school-based sampling would result in an unbiased sample with respect to education. Before starting a survey in schools, parents have to opt in by signing a letter of agreement indicating that they allow an interview with their child. As

found in other studies, sampling via school is problematic due to a higher participation probability of participants with higher educational and socio-economic background.

We contacted 23 schools (out of 55) in Mannheim, which are characterized by a high share of immigrants from Turkey and the former Soviet Union. 8 schools agreed to participate (5 primary schools and 3 lower secondary schools). In close collaboration with the headmaster and the class teachers, we developed a strategy for the pretest: The class teachers were asked to distribute a translated cover letter for the parents (in which we asked for participation in a telephone survey and announced the participation in a lottery of ten vouchers, 20 Euro each). The letters had to be signed by one parent and returned to the class teachers. Additionally, the class teachers filled out a class list, which (among other things) entails students' nationality as well as educational and occupational backgrounds of father and mother.

105 out of 409 parental letters returned with an agreement (26 per cent) in primary schools, but only 10 out of 164 letters in lower secondary schools (6.1 per cent). 80 telephone interviews of about 20 minutes length were realized.

The main aim of the school pretest was to assess selectivity of responding parents with respect to their educational and occupational background. The distribution of educational degrees of the 80 participating parents indicates that selectivity issues were rather negligible. 3 per cent had no educational degree, 26 per cent had a low, 33 per cent a medium and 21 per cent a high educational degree (17 per cent had a foreign degree hardly fitting into the German degree system). Additionally, especially for lower secondary schools, participating parents are not selective on education. However, only 7 out of 17 class teachers filled out the class list containing background information on all students in their class, thus a realistic estimation of educational selectivity is not possible.

Nevertheless, especially extremely low response rates on schools' and parents' level lead us to decide not to prefer the sample selection via schools. Instead, we aimed for a office registry based sampling procedure.

Table 4.1: Distribution of educational and occupational degrees for the contacted persons

	Educational degree						
Occupational degree	**No degree**	**VS/HS**	**RS**	**POS**	**Abi**	**N/A**	**Total**
No degree	1	3	3	0	1	2	10
Lehre	0	5	9	0	4	0	18
Berufsfachschule	0	6	12	0	1	0	19
Meister/Techniker	0	0	0	0	1	0	1
University	0	0	0	1	9	0	10
N/A	1	7	1	1	1	11	22
Total	2	21	25	2	17	13	80

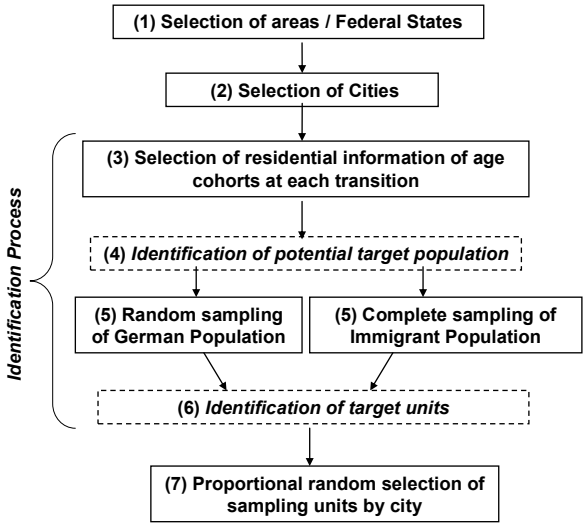
In this chapter, the whole sampling process is described. We used two main sampling strategies. We started with sampling via data from registry offices (section 4.1.4) and continued with sampling via schools (section 4.1.5) because realized interviews did not match the aimed target numbers of native and immigrant respondents. Additionally, we pursued individual sampling strategies (section 4.1.6), mainly in order to interview Jewish Quota Refugees and Ethnic Germans where we found a particular low number of respondents who fulfill all group criteria and who are willing to participate in the survey.

4.1.4 Sampling via data from registry offices

The following section explains in detail how we sampled students with migration background via resident identification lists.

A multistage sampling was designed, including the selection of areas (federal states) accounting for considerable immigrants proportion and certain institutional settings (1.) that leads to a selection of cities by immigrant proportions within these federal states (2.), followed by the sampling of three age cohorts at each transition and data collection of all potential target persons within these age cohorts in selected cities (3.). We identified the potential target population (4.) by using several methods. In a next step, a (random) sample of the identified persons was drawn (5.). After matching telephone numbers to sampled households (6.), screening interviews by telephone (7.) were conducted. Figure 4.1 gives an overview on all sampling steps.

Figure 4.1: Sampling Steps via registry offices



1. Selection of areas

We chose federal states by taking into account their proportions of immigrants – especially the proportions of Ethnic Germans and Jewish Quota Refugees from the FSU – and their educational settings. In Germany, the educational systems of the federal states differ. Therefore,

federal states with a comparable educational system were chosen. North-Rhine Westphalia, Hesse and Hamburg are three federal states that fulfill these two criteria. Primary education takes four years to complete, and similar school types exist in secondary education. However, there are still institutional peculiarities, such as the length of lower secondary school (10 years in North Rhine-Westphalia, 9 years in Hamburg and Hesse), and combined lower and intermediate secondary schools only exist in Hamburg and North Rhine Westphalia, but not in Hesse.

2. Selection of cities

Based on school statistics of the school year 2006/2007, we estimated the number of potential respondents for each group and each city. School statistics in North-Rhine Westphalia and Hamburg contained information on the absolute number of Ethnic Germans and children with Turkish nationality for each school at grade level (see for problems identifying target persons section 4.1.2). For Hesse, no information on Ethnic German backgrounds was available on school level. In this case, we only estimated numbers by grade and group (with no specific underlying criteria). The following cities were chosen:

- North-Rhine-Westphalia: Bielefeld, Bochum, Bonn, Detmold, Dortmund, Duisburg, Düsseldorf, Essen, Gütersloh, Hamm, Cologne, Krefeld, Mönchengladbach, Münster, Paderborn, Wuppertal
- Hesse: Frankfurt on the Main
- Hamburg: Hamburg

3. Definition of age cohorts and collection of data from registry offices

In a preliminary analysis of secondary data (SOEP), relevant age groups were determined for each transition. The analysis revealed that there is an age difference between immigrants and natives: Both students with a Turkish migration background and Ethnic Germans from the FSU were significantly older than their native peers within the same grade. This might be related to poorer language competences resulting in delayed school entry or grade repetition. To avoid a positive selection bias we decided to sample a census of three age cohorts for each transition, thereby selecting one age cohort older and one age cohort younger than the core cohort.

The operational definition of the age cohorts depend on German date regulation for school enrolment: Children start school if they turn six years old until 30th of June before the school year starts in autumn. The core cohort is defined assuming a regular school career starting at the age of six and finishing primary school at the age of ten.

We select the following birth cohorts for the transitions:

Transition 1: Students attending grade 4 in autumn 2007: 01.07.1995 – 30.06.1996, 01.07.1996 – 30.06.1997 and 01.07.1997 – 30.06.1998.

Transition 2: Students attending grade 9 in autumn 2007: 01.07.1990 – 30.06.1991, 01.07.1991 – 30.06.1992 and 01.07.1992 – 30.06.1993.

Transition 3: Students attending grade 10 in autumn 2007: 01.07.1989 – 30.06.1990, 01.07.1990 – 30.06.1991 01.07.1991 – 30.06.1992.

Within a time period of six month we contacted the registry offices of 18 cities. We asked registry offices for a complete digital list (e.g. Excel-file) of children of the defined birth cohorts.

Due to our definition of migration background we needed the data of the child and the parents. The data should include:

- Forename, surname
- Former names
- Complete address
- Date of birth
- Place of birth/country of birth
- Nationalities
- Sex

Parents/legal agent of target person:

- Forename, surname
- Former names
- Complete address
- City of birth/country if birth
- Nationalities

Difficulties and experiences with registry offices

Germany neither has a central population registry nor a unique identifier for each citizen. There are 10.6000 municipalities in total, all with a separate population registry. Contacting each of the registry office in our 18 cities was highly cost-consuming in both time and money. Up to four month waiting time was required between the first contact and the final data delivery. Twelve out of 18 registry offices charged a fee ranging from 80 Euro up to 1500 Euro. Some offices had outsourced the programming of the request, which was often related to high costs and a long waiting period.

After the first contact, registry offices examined the legality of the request, especially the matching of parents' to target persons' data. In every case, the registration offices confirmed the legality of our data request. However, the registry office personnel and their individual interpretation of the Federal Registration Act determine the kind of data they provided. Due to personal and technical restrictions, some registry offices only provide very few information on the target person and no parental data at all. Overall, information received by different registry offices varied considerably between cities, not least because of constraints and different capabilities of their data base management system.

We received data that required differential treatment within the identification process (see 4.). One third of 18 registry offices delivered incomplete data that did not allow for applying the whole identification process. For these cities we used an alternative identification procedure.

In sum, we experienced that complete name, date of birth (at least year of birth), complete address and first nationality of the target child is easily available. Further financial and time efforts were necessary to obtain information on place of birth, further nationalities and on parents or legal agents. However, this information was crucial for the aim of our study since our identification of Ethnic German and Jewish immigrants from the FSU depends on parents' places of birth.

Table 4.2: Distribution of nationality

City	German		Turkish		FSU		Unknown		Other		Total
	N	%	N	%	N	%	N	%	N	%	N
Bielefeld	16,728	85.61	1,457	7.46	125	0.64	7	0.04	1,223	6.26	19,540
Bonn	17,787	86.25	859	4.17	179	0.87	22	0.11	1,776	8.61	20,623
Bochum	21,348	88.86	1,239	5.16	153	0.64	331	1.38	954	3.97	24,025
Detmold	5,794	93.02	204	3.28	42	0.67	5	0.08	184	2.95	6,229
Dortmund	24,660	77.41	3,390	10.64	774	2.43	31	0.10	3,002	9.42	31,857
Düsseldorf	23,401	79.90	1,510	5.16	470	1.60	25	0.09	3,883	13.26	29,289
Duisburg	29,433	78.69	5,614	15.01	177	0.47	40	0.11	2,138	5.72	37,402
Essen	33,190	87.56	2,067	5.45	161	0.42	291	0.77	2,196	5.79	37,905
Frankfurt on the Main	25,920	73.01	3,017	8.50	294	0.83	148	0.42	6,124	17.25	35,503
Gütersloh	7,098	90.98	200	2.56	54	0.69	8	0.10	442	5.67	7,802
Hamburg	87,161	84.44	5,811	5.63	1,009	0.98	71	0.07	9,170	8.88	103,222
Hamm	12,577	85.62	1,463	9.96	64	0.44	12	0.08	573	3.90	14,689
Köln	41,532	77.51	6,432	12.00	529	0.99	40	0.07	5,047	9.42	53,580
Krefeld	15,055	86.89	1,234	7.12	99	0.57	17	0.10	922	5.32	17,327
Mönchen-gladbach	18,021	88.41	989	4.85	153	0.75	11	0.05	1,209	5.93	20,383
Münster	16,153	91.88	187	1.06	128	0.73	21	0.12	1,091	6.21	17,580
Paderborn	10,348	92.33	296	2.64	95	0.85	6	0.05	463	4.13	11,208
Wuppertal	21,144	83.23	1,619	6.37	281	1.11	35	0.14	2,326	9.16	25,405
Total	427,350	83.21	37,588	7.32	4,787	0.93	1,121	0.22	42,723	8.32	513,569

4. Identification of the population

Identifying students of our target groups (Ethnic Germans and Jewish Immigrants from the former Soviet Union, students with Turkish ancestry and native Germans) was not easy. Resident identification lists do not contain any information on immigrant status, but only on nationality. Ethnic Germans receiving German nationality upon arrival in Germany and naturalization common both in the Ethnic German and Jewish community lead to the problem that they cannot easily be identified using nationality as definition criterion. Therefore, we applied stepwise

group classification using information on nationalities, place of birth and names. Still we had to face the problem of incomplete data (see 3.)

Using information on students' and their parents' nationality, origin of names and places of birth, we identified immigration status as well as ethnic background via nationality or by applying Toponomastic and Onomastic procedures.

First Step: Nationality

First of all, residential data was brought in a uniform form in Excel and an identification number was assigned to each person in the data set. We identified all persons with one of the following nationalities: Germany, Turkey, the Former Soviet Nations (Belarus, Armenia, Estonia, Azerbaijan, Lithuania, Georgia, Latvia, Kazakhstan, Moldova, Kyrgyzstan, Tadzhikistan, Ukraine, Turkmenistan, Uzbekistan and Russia), stateless status and unknown nationalities. All cases with any other nationality were excluded. By selecting only the aforementioned nationalities, the number of cases was reduced by 8.32 per cent on average (see table 4.2).

Table 4.3: Results of Toponomastic, child's birthplace

City	Total	No inform.	Total with inform.	Allocation		No allocation	
Bielefeld	18,317	0	18,317	18,058	98.6	259	1.4
Bonn	18,847	0	18,847	18,701	99.2	146	0.8
Bochum	23,071	23,071	0	-	-	-	-
Detmold	6,045	0	6,045	5,927	98.0	118	2.0
Dortmund[1]	29,867	20	29,847	29,427	98.6	420	1.4
Düsseldorf	25,406	0	25,406	25,349	99.8	57	0.2
Duisburg	35,264	35,264	0	-	-	-	-
Essen	35,709	0	35,709	35,238	98.7	471	1.3
Frankfurt on the Main	29,379	62	29,317	28,374	96.8	943	3.2
Gütersloh	7,360	1	7,359	7,320	99.5	39	0.5
Hamburg[2]	84,342	2	84,340	82,974	98.4	1,366	1.6
Hamm	14,116	3	14,113	13,903	98.5	210	1.5
Köln	48,533	1	48,532	48,071	99.1	461	0.9
Krefeld	16,405	16,405	0	-	-	-	-
Mönchengladbach	19,174	0	19,174	18,957	98.9	217	1.1
Münster	16,489	0	16,489	16,110	97.7	379	2.3
Paderborn	10,745	0	10,745	10,474	97.5	271	2.5
Wuppertal	23,079	0	23,079	22,719	98.4	360	1.6
Total	**462,148**	**74,829**	**387,319**	**381,602**	**98.5**	**5,717**	**1.5**

1 Also cases with „other nationality" were sent to Humpert & Schneiderheinze due to mistakes in data management.
2 Fewer cases with relevant nationality were sent to Humpert & Schneiderheinze due to mistakes in data management.
3 Excluding cities with no information at all.

Table 4.4: Results of Toponomastic, mother's / first parent's birthplace

City	Total	No inform.	Total with inform.	Allocation		No allocation	
Bielefeld	18,317	1	18,316	17,061	93.1	1,255	6.9
Bonn	18,847	733	18,114	16,436	90.7	1,678	9.3
Bochum	23,071	23,071	0	-	-	-	-
Detmold	6,045	1,118	4,927	4,377	88.8	550	11.2
Dortmund[1]	29,867	715	29,152	26,616	93.1	2,536	8.7
Düsseldorf	25,406	25,406	0	-	-	-	-
Duisburg	35,264	35,264	0	-	-	-	-
Essen	35,709	5,895	29,814	27,023	90.6	2,791	9.4
Frankfurt on the Main	29,379	23	29,356	24,090	82.1	5,266	17.9
Gütersloh	7,360	167	7,193	6,929	96.3	264	3.7
Hamburg[2]	84,342	49	84,293	78,660	93.3	5,633	6.7
Hamm	14,116	1,635	12,481	11,240	90.1	1,241	9.9
Köln	48,533	895	47,638	45,037	94.5	2,601	5.5
Krefeld	16,405	16,405	0	-	-	-	-
Mönchengladbach	19,174	19,174	0	-	-	-	-
Münster	16,489	16,489	0	-	-	-	-
Paderborn	10,745	198	10,547	9,478	89.9	1,069	10.1
Wuppertal	23,079	479	22,600	20,483	90.6	2,117	9.4
Total	**462,148**	**147,717**	**314,431**	**287,430**	**91.0**	**27,001**	**9,0**

[1] Also cases with „other nationality" were sent to Humpert & Schneiderheinze due to mistakes in data management.
[2] Fewer cases with relevant nationality were sent to Humpert & Schneiderheinze due to mistakes in data management.
[3] Excluding cities with no information at all.

Second Step: Assignment of country to place of birth

Data from the registry offices contained information on the place of birth (city or municipality), but not on country of birth. To derive country of birth from a certain city or municipality, we used "Toponomastics" methods. For cases where no information on parents' place of birth and only students' name and nationality was available, "Onomastics" techniques were additionally applied.

Toponomastics

Since a high share of Ethnic Germans from the FSU cannot be identified by drawing on nationality, child's and parents' birthplaces are used in order to define ethnic background, using Toponomastics procedures. Birthplaces are allocated to certain countries by using the following sources:

- Geographic catalogues and topographic maps
- Community key data set (Gemeindeschlüsseldatei) of the Federal Office of Statistics (Statistisches Bundesamt)

- Catalogues of districts/local centers based on publications of administrative bodies and communities
- Internet (search engines, topographic data base)
- Current stock of place names with an allocation to countries

The matching of a country to a birthplace is strictly based on definite and clear evidence. No allocation occurred when information was ambiguous. Tables 4.3 to 4.5 show the results of this procedure for birthplaces of children and their parents for each city separately. Note that for some cities (e.g., Bochum, Düsseldorf), no information on birthplaces of any household member is available.

Table 4.5: Results of Toponomastic, father's / second parent's birthplace

City	Total	No inform.	Total with inform.	Allocation		No allocation	
Bielefeld	18,317	3,845	14,472	13,476	93.1	996	6.9
Bonn	18,847	2,846	16,001	14,351	89.7	1,650	10.3
Bochum	23,071	23,071	0	-	-	-	-
Detmold	6,045	240	5,805	5,304	91.4	501	8.6
Dortmund[1]	29,867	5,453	24,414	22,364	91.6	2,050	8.4
Düsseldorf	25,406	25,406	0	-	-	-	-
Duisburg	35,264	35,264	0	-	-	-	-
Essen	35,709	685	35,024	32,104	91.7	2,920	8.3
Frankfurt on the Main	29,379	9,267	20,112	16,529	82.2	3,583	17.8
Gütersloh	7,360	998	6,362	6,044	95.0	318	5.0
Hamburg[2]	84,342	32,800	51,542	47,182	91.5	4,360	8.5
Hamm	14,116	291	13,825	12,639	91.4	1,186	8.6
Köln	48,533	6,000	42,533	39,803	93.6	2,730	6.4
Krefeld	16,405	16,405	0	-	-	-	-
Mönchengladbach	19,174	19,174	0	-	-	-	-
Münster	16,489	16,489	0	-	-	-	-
Paderborn	10,745	1,125	9,620	8,459	87.9	1,161	12.1
Wuppertal	23,079	2,347	20,732	18,419	88.8	2,313	11.2
Total	**462,148**	**101,161**	**360,987**	**236,674**	**90.7**	**23,768**	**9.3**

1 Also cases with „other nationality" were sent to Humpert & Schneiderheinze due to mistakes in data management.
2 Fewer cases with relevant nationality were sent to Humpert & Schneiderheinze due to mistakes in data management.
3 Excluding cities with no information at all.

The Toponomastic technique identified 98.5 per cent (91 per cent, 90.7 per cent) of child' (first parent's, second parent's) countries of birth (see table 4.3). For about 9 per cent of parents' places of birth, no allocation was made because no clear evidence was available (see table 4.4 and 4.5). The comparably low numbers of non-allocation for child's birthplace of only 1.5 per cent is due to the fact that the majority of these children were born in Germany where sources are most reliable. Differences between cities might result from differences in data quality.

Onomastic[1]

Onomastic is a name-based technique we used to identify ethnic background of target persons whose place of birth is unknown (Bochum, Düsseldorf, Duisburg, Mönchengladbach and Münster). This method uses names that are typical within the respective ethnic group. Onomastic technique especially facilitates the identification of persons' ethnic background that is not evident from place of birth or nationalities, when:

- Person holds only the German nationality by birth
- German and former or other nationalities are unknown/not available
- Place of birth is in Germany (or in an other country which was only passed)

Table 4.6 displays success rates of group identification on the basis of child's names. In total, 85 per cent of all persons were assigned using Onomastic techniques.

Table 4.6: Results of Onomastic, child's name

City	Total	No inform.	Total with inform.	Allocation		No allocation	
				N	%	N	%
Bochum	23,071	0	23,071	21238	92.1	1833	7.9
Düsseldorf	25,406	40	25,366	28552	77.3	6709	22.7
Duisburg	35,264	0	35,264	19607	81.0	5759	19.0
Mönchengladbach	19,174	0	19,174	16889	88.1	2285	11.9
Münster	16,489	0	16,489	15493	94.0	996	6.0
Total	**96,330**	**40**	**96,290**	**80,541**	**85.0**	**15749**	**14.9**

Table 4.7 shows numbers of cases that are assigned to the target groups after the whole identifying process. About 65,000 cases are excluded because they were not assigned to any of the groups or they were identified as belonging to any other ethnic group. This leaves 461,136 cases that constitute the gross sample of our study

[1] Though Ethnic German first and surnames predominantly sound German, a range of names exists that distinguish Ethnic German fairly well from autochthonous Germans. The name is allocated to the Russian category if it is certainly a Russian name.

Table 4.7: Distribution after allocation using Onomastic and Toponomastic methods

City	German	Turkish	Ethnic German	Jewish Quota Refugee	Other/no allocation	Total
Bielefeld	10,400	2,846	2,106	111	2,854	18,317
Bonn	11,373	1,293	793	170	5,218	18,847
Bochum	18,078	2,632	509	19	1,833	23,071
Detmold	3,693	407	1,080	31	834	6,045
Dortmund	19,900	4,109	548	693	3,605	28,855
Düsseldorf	20,170	2,340	1,108	42	1,746	25,406
Duisburg	24,499	9,167	491	10	1,097	35,264
Essen	25,605	3,190	633	132	6,149	35,709
Frankfurt on the Main	14,723	4,556	721	273	9,106	29,379
Gütersloh	4,580	735	651	54	1,340	7,360
Hamburg	61,067	10,304	3,350	861	8,760	84,342
Hamm	8,782	1,977	912	50	2,395	14,116
Köln	28,594	9,649	1,303	464	8,523	48,533
Krefeld	12,185	2,300	592	7	1,321	16,405
Mönchengladbach	15,495	1,828	640	3	1,208	19,174
Münster	12,627	449	549	83	2,781	16,489
Paderborn	5,914	778	1,732	76	2,245	10,745
Wuppertal	15,005	2,696	514	247	4,617	23,079
Total	**312,690**	**61,256**	**18,232**	**3,326**	**65,632**	**461,136**

5. Preparation of sampling plan

In a next step, we sampled all Turks (61,256), Ethnic Germans (18,232) and Jews (3,326) from the FSU. The reason for this procedure is our aimed target number. Experiences from the pretest (see section 4.1.3) lead to expect that we will not hit these numbers by drawing a random selection for minority groups as well. Therefore, we sampled all potential target persons with Turkish and FSU backgrounds. A proportional random sample was drawn from German data, proportional to Turkish and FSU students in the city attending grade 4, 9 and 10, respectively.

6. Matching of telephone numbers

All relevant data on sampled target persons (surname, complete address) was sent to Humpert & Schneiderheinze GbR again who matched these data with the current local telephone books in order to find target persons' telephone numbers. Table 4.8 shows that the coverage rate differs between cities according to population size (e.g. Germans in Hamburg 32 per cent vs. Germans in Gütersloh 65 per cent) as well as between immigrant groups: While families with Turkish migration background have the lowest coverage rate of about 19 per cent, the rates for Jewish immigrants and Ethnic Germans from the FSU lie between 22 and 35 per cent, while we are able to obtain telephone numbers of 45 per cent of Germans families on average. The number of

potential respondents was considerably reduced when only taking into account cases with valid telephone numbers (column "Total").

Table 4.9 gives an overview on the whole identification process. Starting with information on 513,569 children and adolescents who belong to the pre-defined age cohorts (see table 4.2), about 10 percent were excluded because they hold another citizenship than Germany, Turkey, one country of the former Soviet Union or unknown citizenship. Toponomastic and Onomastic methods are used in order to define ethnic groups more accurately. The number of persons in the German group is reduced by about 25 per cent. Of course, some formerly "German cases" are assigned to other ethnic groups on the basis of their birthplace or name. For 15 per cent, no allocation or allocation to another origin was made. Hence, this step reduces the sample further by about 15 per cent. Due to missing telephone numbers, the sample decreases considerably, to 45,622. These cases were sent to SUZ research institute for telephone screening interviews.

Table 4.8: Success rate telephone number research

	Total	German		Turks		Ethnic Germans		FSU Jews		Total
		N	%	N	%	N	%	N	%	
Bielefeld	8,663	1,925	53	672	24	811	39	32	29	3,440
Bonn	4,356	1,069	51	314	24	347	44	38	22	1,768
Bochum	3,160	0	-	478	18	129	25	8	42	615
Detmold	3,418	1,211	64	117	29	614	57	10	32	1,952
Dortmund	8,950	1,482	41	606	15	195	36	212	31	2,495
Düsseldorf	5,890	1,007	42	491	21	276	25	9	21	1,783
Duisburg	15,068	2,204	41	2,231	24	116	24	4	40	4,555
Essen	6,955	1,378	46	512	16	218	34	28	21	2,136
Frankfurt on the Main	13,650	3,950	49	691	15	217	30	63	23	4,921
Gütersloh	2,740	849	65	308	42	298	46	13	24	1,468
Hamburg	28,315	4,444	32	965	9	679	20	97	11	6,185
Hamm	5,089	1,148	53	606	31	412	45	12	24	2,178
Köln	19,464	3,619	45	1,899	20	455	35	110	24	6,083
Krefeld	2,899	0	-	538	23	165	28	2	29	705
Mönchengladbach	2,471	0	-	454	25	157	25	1	33	612
Münster	2,681	900	56	120	27	252	46	18	22	1,290
Paderborn	5,086	1,647	66	292	38	902	52	13	17	2,854
Wuppertal	3,457	0	-	334	12	183	36	65	26	582
Total	**142,312**	**26,833**	**45**	**11,628**	**19**	**6,426**	**35**	**735**	**22**	**45,622**

Table 4.9: Overview on whole identification procedure

	German	Turkish	Ethnic German	FSU Jews	Unknown	Total
Only relevant nationalities	427,350	37,588	4,787		1,121	470,846
After group allocation	312,690	61,256	18,232	3,326	-	395,504
Sample[1]	59,550	61,227	18,211	3,324	-	142,312
Telephone available	26,833	11,628	6,426	735	-	45,622

[1] 52 cases excluded because they already refused in the pretest conducted in Cologne.

7. Telephone screening of target persons

Computer-assisted telephone interviews with every potential target household (three to five minutes) constitute the final step of sampling. The screening interviews were conducted from September 2007 to April 2008 in 14 cities for all groups, and in 4 cities only for children with an immigrant background. The questionnaire comprises several questions on school attended by the child and migration history in order to finally assign a certain household to one of the target groups according to the following sampling criteria:

1. School grade
2. School type
3. Age of enrollment
4. Generation
5. Migration background (of parents)/migration status

If a target person fulfills all criteria, he/she was asked to participate in the survey. In case of agreement, it was announced that an interviewer would make an individual appointment for the main interview at home. However, although 54 per pent (n = 20,781) of all households took part in the screening interview, the hit ratio according to screening criteria was very low (18 per cent). The identified target population (n = 3,675) was further reduced due to refusals (46 per cent). Although the remaining 1,974 respondents agreed to participate, less than 60 per cent of all interviews (n = 1,142) were realized eventually. Table 4.10 gives an overview on the telephone screening by target group and whether the main interview was eventually completed.

Table 4.10: Telephone screening, by group

City	German		Turkish		Russian		Total	
	N	%	N	%	N	%	N	%
Cases for screening interview	26,833	100	11,628	100	7,161	100	45,622	100
Not used for telephone screening[1]	1,706	6	3,821	33	1,388	19	6,915	15
Used for telephone screening	25,127	94	7,807	67	5,773	81	38,707	85
Total used for telephone screening	25,127	100	7,807	100	5,773	100	38,707	100
Neither refusal nor interview	7,162	25	1,664	19	655	9	9,481	22
Refusal	6,270	28	977	15	1,198	23	8,445	24
Screening interview complete	11,695	47	5,166	66	3,920	68	20,781	54
Total screening interview complete	11,695	100	5,166	100	3,920	100	20,781	100
Not fulfilled screening criteria	9,941	85	4,029	78	3,136	80	17,106	82
Fulfilled screening criteria	1,754	15	1,137	22	784	20	3,675	18
Total fulfilled screening criteria	1,754	100	1,137	100	784	100	3,675	100
Agreed to participate	1,053	60	568	50	353	45	1,974	54
Refused to participate	702	40	568	50	431	55	1,701	46
Total agreed to participate	1,053	100	568	100	353	100	1,974	100
Participated in main survey	576	55	324	57	242	69	1,142	58
Not participated in main survey	477	45	244	43	111	31	832	42

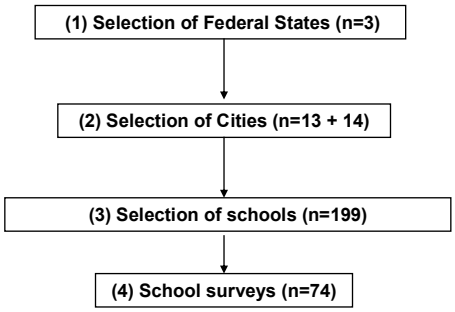
[1] Not used due to missing, wrong or double telephone numbers or double Russian names.
[2] 745 cases excluded: Screening interviews completed but assigned to „quote complete“ (oversampled).

4.1.5 Sampling via Schools

1. Selection of schools

In Spring 2008 it was foreseeable that we will not hit our aimed number of cases with the register-based sampling procedure and household interviews, especially for Ethnic German and Turkish respondents in transition 2 and 3. Thus, a need to compensate for this problem emerged, and we decided to implement another sampling frame, a school-based sampling containing the following steps (see figure 4.2):

Figure 4.2: Sampling step of schools



1. Selection of 13 cities already covered in the household survey and 14 additional cities with a high share of the immigrant population:

   North-Rhine-Westphalia: Bielefeld, Detmold, Dortmund, Duisburg, Düsseldorf, Essen, Gütersloh, Hamm, Willich, Brakel, Höxter, Löhne, Minden, Porta Westfalica, Preußisch Oldendorf, Willebadessen, Paderborn
   Hesse: Frankfurt on the Main, Dietzenbach, Offenbach, Hanau, Kassel, Raunheim, Viernheim, Langen
   Hamburg

2. Selection of schools with high numbers of immigrants using official school statistics:

   School statistics were available for NRW and Hamburg. School statistics contain information on student's nationality and Ethnic German status only, such that children of Turkish origin who have been naturalized are included as Germans in the lists. In Hesse, no school statistics are available and the students' population and composition had to be requested directly from schools. If this information was not available, we selected schools in case they provide lessons in Turkish and Russian.

   We chose the following school types: Primary schools (grade 4), lower secondary schools (grade 9) and intermediate secondary schools (grade 10) as well as comprehensive schools (grade 9 and 10) with medium or high shares of migrants. We selected 199 out of 1,593 schools within our selected cities (12.5 per cent) with high absolute numbers of Ethnic German and/or Turkish immigrants per grade (more than 10 students per group and transition). This rather indirect approach might result in a not-representative sample since we oversampled schools with high immigrants proportions.

3. Permission of federal educational ministries (only in Hesse)

4. Contact of schools and permission to conduct the school survey

   We contacted 171 schools (85.9 per cent) and asked for permission to conduct a survey at their school. Finally, 74 schools (43.3 per cent) agreed to participate in the study.

2. Screening of target persons

If headmasters agreed to participate in the survey, class teachers hand out cover letters to all students of Russian and Turkish immigration background. This letter described he study and asked for parental permission for their child to participate in an interview within their school. All students whose parents gave their written permission (opt-in) participated in the interviews. Thus, initial screening is based on teachers' assessment whether the child is a Turkish or FSU immigrant. The accurate screening, then, took place in the main interview itself.

4.1.6 Additional sampling procedures

1. Postal Sampling

In order to avoid sampling bias, target persons in the immigrant subgroups were also contacted via mail. A cover letter (in German and Russian/Turkish) was sent to all Russian and Turkish families with more than one child in the household. The letter contained information on the study and asked for filling in a form about every child's school grade and school type. To save costs we asked for telephone numbers and the permission to contact the household again via telephone if they meet our sampling criteria. Families were asked to send back this form. If a family had answered, a telephone screening was conducted.

Since this method was unsuccessful (19 main interviews were conducted), we will not show response rates for this sampling method.

2. Snow Ball Sampling

In addition, snowball sampling was applied to find potential target persons via personal networks. Interviewers and interviewees were asked to recommend other students to whom the criteria may apply. If family agreed to participate, a CATI screening was conducted. 22 main interviews were realized due to Snowball sampling.

3. Jewish Communities and Announcement

In order to reach the sample size in the hard-to-reach group of Jewish migrants from the Former Soviet Union, we asked all Jewish communities in North Rhine-Westphalia, Hamburg and Frankfurt to support our study by announcement via mail and telephone. Oftentimes we did not even get an answer although contacting communities more than three times. Those successfully contacted by phone were asked to talk to families with children in grade 4. They handed out our cover letter, which could be answered via phone, fax or email. Additionally, Jewish community staff members working with children in the choir or in language courses were asked to distribute the letter to potential target students for their parents. The letter was also published at black boards. Jewish schools were also contacted. The procedure was the same as described in the part "sampling of population via schools".

Overall, additional sampling strategies were quite unsuccessful, resulting in an additional number of cases of 54 realized interviews. Table 4.11 summarizes the results of the whole sampling procedure for each transition and subgroup in Germany.

Table 4.11: Sampling methods and total numbers of cases in Germany

	German	Turkish	Ethnic German	Jewish Quota Refugees	Other background
Transition 1 (grade 4)					
CATI-Screening	198	183	120	15	2
Postal Screening	0	0	5	8	0
Snowball Screening	0	1	5	5	3
Jewish Communities	0	0	0	10	0
Announcement Russian newspaper	0	0	3	0	0
School sampling	63	43	121	3	25
Transition 2 (grade 9)					
CATI-Screening	157	54	36	0	0
Postal Screening	0	0	1	0	0
Snowball Screening	1	1	1	0	0
Jewish Communities	0	0	0	0	0
Announcement Russian newspaper	0	0	0	0	0
School sampling	113	409	266	3	91
Transition 3 (grade 10)					
CATI-Screening	221	87	59	0	0
Postal Screening	0	0	5	0	0
Snowball Screening	2	1	2	0	0
Jewish Communities	0	0	0	0	0
Announcement Russian newspaper	0	0	0	0	0
School sampling	78	307	261	16	33

4.2 Israel

In Israel sampling was much less complicated than in Germany due to the availability of a convenient sampling frame. We used a sampling frame that included students in 4th, 9th and 11th grades, from Hebrew (rather than Arabic) non-religious public schools in towns and cities with more than 10,000 residents taken from the Ministry of Education student file. Student records include: name, names of parents, address, immigration status and date of birth. Telephone numbers for parents were obtained from the central phone directory for 80 per cent of the sample. Of those 80 per cent were found to be accurate. The sample was stratified according to mother's status of immigration: one stratum of immigrants from the former Soviet Union and one stratum of non-immigrants. All other cases were excluded and a random sample within each stratum was drawn.

Table 4.12 shows response rates and reasons for non-participation, separately by transition and immigrant group. The overall realization rate was very high especially in comparison to Germany (between 85 and 87 per cent). At the same time, refusal was a rare event, occurring in only 3.5 to

7.5 per cent of the eligible sample depending on immigrant background and transition. Overall, we cannot detect selective response behavior neither with respect to age group of the target person nor immigrant background.

Table 4.12: Sampling scheme, by transition and immigrant status

	Transition 1		Transition 2		Transition 3		Total	
	Immig.	**Non-immig.**	**Immig.**	**Non-immig.**	**Immig.**	**Non-immig.**	**Immig.**	**Non-immig.**
Gross Sample	403	356	350	370	341	351	1,094	1,077
Not in Israel	1 (0.2)	-	-	-	1 (0.2)	-	2 (0.2)	-
Not qualified due to health condition	1 (0.2)	-	-	-	-	-	1 (0.1)	-
Eligible sample	401	356	350	370	340	351	1,091	1,077
Full interview	335 (83.5)	312 (87.6)	308 (88.0)	322 (87.0)	287 (84.4)	306 (87.2)	930 (85.2)	940 (87.3)
Partial interview	1 (0.2)	-	-	-	-	-	1 (0.1)	-
No interview after appointment	1 (0.2)	-	-	-	-	-	1 (0.1)	-
No answer (after 5 visits)	9 (2.2)	7 (2.0)	10 (2.9)	8 (2.2)	9 (2.6)	8 (2.3)	28 (3.0)	23 (2.4)
Refusal	30 (7.5)	20 (5.6)	12 (3.5)	20 (5.4)	23 (7.1)	25 (7.1)	66 (7.1)	65 (6.9)
Not available in survey time	4 (1.0)	6 (1.7)	1 (0.3)	4 (1.1)	1 (0.3)	-	6 (0.6)	10 (1.1)
No interview – other reasons	22 (5.4)	11 (3.1)	18 (5.2)	16 (4.3)	19 (5.6)	12 (3.4)	59 (6.3)	39 (4.1)

The initial plan was to start interviewing right after the end of the Jewish holidays [mid October 2007]. However, the Israeli secondary school teachers went on strike and most seventh to twelfth grade pupils did not go to school for about 50 days. We decided to begin the fieldwork for the youngest age group [4th graders] as scheduled. The strike ended in mid December [December 16th]. During the strike, it did not make sense to interview the two older age groups because quite a few of the variables that we measure would be affected by the strike (e.g., time-use, curricular choice, grades in school). We started the fieldwork for the two older age groups two weeks after the end of the strike [beginning of January 2008]. Fieldwork ended in June 2008. This did not influence the timing of the second wave.

Table 4.13 gives an overview on the number of cases where we have a completed interview.

Table 4.13: Completed Interviews

	Transition			
	1 (4th grade)	**2 (9th grade)**	**3 (10th/11th grade)**	**Total**
Germany				
FSU Ethnic Germans	254	304	327	885
FSU Jewish Quota Refugees	41	3	16	60
Turkish origin	227	464	395	1,086
Native Germans	261	271	301	833
Other immigrant background	30	91	33	154
Total	813	1,133	1,072	3,018
Israel				
FSU immigrants	337	310	288	935
Mizrahi and Ashkenazi Israelis	310	320	305	935
Total	647	630	593	1,870

5 Survey Instruments

Educational success depends on a variety of factors. Some of these are determined by structural characteristics (e.g., educational system of a country), others are due to individual characteristics (e.g. personal abilities, social and cultural resources, access to information and support, investment behavior). Immigrants' educational success depends on whether students and their families obtain access to certain resources, which are valuable within the national context, and weather their resource endowment constitute a restriction or an opportunity in the educational system. Thus, in order to study ethnic differences in education, it is necessary to apply adequate measures of various kinds of specific resources.

5.1 Achievement Tests

In order to be able to control for "primary effects" when analyzing educational decisions, competence measures are crucial. In our study, we decided to concentrate on the two most important abilities, that is, language proficiency and general cognitive capability.

5.1.1 Language proficiency

The overall construct "language" consists of several dimensions: Reading literacy (reproduction, evaluation and reasoning), reading comprehension (listening comprehension) and writing (grammar, spelling and text production). Due to various restrictions in our survey (e.g., interview time and international applicability), we decided to concentrate on one dimension and investigate this dimension rather thoroughly. We chose reading literacy since as the best option with regard to all restrictions. The major aim was to obtain an objective and valid measurement of language proficiency, which is comparable between ethnic groups within one country and between the two countries under investigation, Germany and Israel. Unfortunately, we were not able to find an internationally comparable test, which measures language proficiency in Hebrew and in German. Therefore, we developed separate instruments for Germany and Israel.

The instruments for Germany were developed and tested in a pre-study of 118 4th graders, 71 9th graders, and 122 10th graders in Villingen-Schwenningen, Baden-Württemberg. In Israel, adaptations and Hebrew-versions of similar standardized achievement tests were developed and tested in subsequent pre-studies for each age group.

The reading literacy tests we used for grade 4, 9 and 10 in Germany are standardized test instruments (see Table 5.1). For grade 4, we used part of KS HAM 4/5. For grade 9 and 10, we used one part of SL HAM 8/9. These tests were also used in the national LAU-Study in Hamburg. To be applicable within the time frame of our study (20 minutes for reading literacy), three texts used in the LAU-Study were selected based on reliability tests using LAU-Data.

Table 5.1: Language test source and modifications

Transition	Grade	Source	Notes
1st	*4*	KS HAM 4/5 Der Hamburger Kombinierte Schulleistungstest für vierte und fünfte Klassen. (Mietzel & Willenberg 1996)	Modification: Reduction of number of texts used at LAU 5, test form A, from 4 to 3 texts. Basis: Reliably tests with LAU 5 data. Realization: Dr. Rüdiger Gänsfuß, Humboldt-Universität zu Berlin.
2nd/3rd	*9/10*	SL HAM 8/9 Hamburger Schulleistungstest für achte und neunte Klassen. Untertest zu Leseverständnis (Behörde für Schule, Jugend und Berufsbildung, Amt für Schule Hamburg 2000)	Modification: Reduction of number of texts used at LAU 9, test form A, from 11 to 3 texts. Basis: Reliably tests with LAU 9 data. Aim: Possible usage of all 3 texts for the school forms Hauptschule, Realschule and Gesamtschule. Realization: Dr. Rüdiger Gänsfuß, Humboldt-Universität zu Berlin.

In Israel, we used reading literacy tests that had been used in a comprehensive research project conducted by Prof. Shohamy Elana, Prof. Tamar Levine and Prof. Bernard Spolsky in 2003 by order of the Ministry of Education. In accordance with the rationale of these reading literacy tests, we chose three types of texts for each grade: one in "fine" Hebrew that is used for teaching, one in "daily Hebrew" which is used in daily conversation and instructions for students, and one in "mathematical" Hebrew which is used for teaching Math and exact sciences.

Operationalization

Every student in grade 4, 9 and 10 receives three texts to read, followed by 21 multiple-choice questions to answer (each text with 7 questions) in Germany and twelve multiple-choice questions in Israel (each text with three to four questions). All students received the same test version; no diversification of texts or randomized order was used. Processing time was a maximum of 20 minutes to answer all questions (without instructions).

Scales

Achievement in reading literacy was measured with multiple-choice questions at the end of each text. 21 items were used in Germany, and 12 items for 4th graders and 10 items for 9th and 11th graders in Israel. Answers were coded “1” for a correct answer and “0” for a wrong or missing answer. The values of all correct answers sum up to a total language comprehension score.

5.1.2 Cognitive Ability

Cognitive ability testing aims at obtaining an objective and valid measurement of deductive reasoning competence. Preferably, this should be comparable between ethnic groups within one country and between countries. Most important, the test had to be "culturally fair", that is, independent of curriculum knowledge and free of language competence. The maximum duration of cognitive ability testing in our study was set to 10 minutes. The KFT 4-12+ R (Kognitiver Fähigkeitstest für 4. bis 12. Klassen, Revision von K. A. Heller und Ch. Perleth, 2000) measures various dimensions of cognitive capability and focuses especially on dimensions, which are relevant for studying and learning (school achievement). The nine subsets of the test are divided into three parts: A verbal part containing the subsets V1 (vocabulary), V2 (word classification), V3 (word analogy), a numerical part containing the subsets Q1 (relations), Q2 (numerical series) and Q3 (equations), and a nonverbal part containing the subsets N1 (figure classification), N2 (figure analogy) and N3 (figure folding). Each subset consists of twelve to 25 tasks, processing time of all parts is 130 minutes. Due to the restriction to use a nonverbal and culturally fair test and due to time restrictions, subset N2 (figure analogy) was chosen. This subset measures abstract reasoning by presenting figures, which are supposed to commensurate to each other. The correct figure has to be chosen. This test was conducted both in Germany and Israel.

The cognitive capability test was tested in a pre-study of 118 4th graders, 71 9th graders, and 122 10th graders in Villingen-Schwenningen, Baden-Württemberg. In Israel, an adaptation and a Hebrew-version of this test was developed and tested in subsequent pre-studies for each age group.

Operationalization

Every student in grade 4, 9 and 10 receives 25 tasks. All students received the same test version; no diversification or randomization was used. Processing time was a maximum of 8 minutes to finish all tasks (without instructions). The cognitive test was conducted after the reading literacy test. To guarantee a language free and culturally fair test, instructions were translated into Turkish and Russian as well. Answers were coded "1" for a correct answer and "0" for a wrong or missing answer. The values of all correct answers sum up to a total cognitive ability score.

5.2 Social Capital

The concept of social capital encompasses resources possessed by individuals on the basis of their relationships to other individuals or as a result of their embeddedness in a collective system. Immigrant disadvantages might be caused by the lack of social resources relevant in the receiving society, as well as the devaluation of resources specific to their country of origin. The concept of social capital in our questionnaires comprises three main dimensions, whereby we distinguish between the social network of the parents (mothers) and the social network of the children:

a) Network information

Network information is measured using three types of generators, allowing for measuring access to and quality of social networks.

1. The **resource generator** measures access to social resources useful for various situations, including resources that are helpful when immigrants face certain problems (e.g., writing official letters in the language of the host country). Respondents (both mothers and their children) were asked to nominate a person who would help them in a certain situation (e.g., a friend or a teacher) and give this person's ethnic origin.

2. The **position generator** is theoretically based on the idea that a range of positions, captured by occupations, indicates weak ties of the respondent, and hence social resources he/she can draw upon. 3 socio-economic groups of occupations based on their socio-economic ranking (total of 12 occupations) were selected. Respondents (only mothers) were supposed to tell for each occupation whether they know someone with this occupation, and if they do, where this person comes from and what her relationship to this person is.

3. The **name generator**, which was applied for students only, gives information on ethnic origin and educational background of the respondent's three best friends, i.e. it provides information on strong ties. Students in grade 9 and 10 were asked additional information on their best friend and on their peer group's composition and aspirations.

b) Integration vs. Segmented Assimilation

Measurements of Segmented Assimilation include social resources related to neighborhood and school as well as contacts with co-ethnic friends and relatives. It also includes information on whether help has been received from people of the same ethnic origin.

1. Neighborhood characteristics (ethnic composition, social integration)
2. Return orientation and
3. Contacts with friends and family in the (parents') country of origin.

The Segmented Assimilation approach argues that young people's integration into an ethnic community is highly relevant for values, orientations and aspirations (instead of inclusion into mainstream society). Thus, by including the above-mentioned items, we also aimed at capturing the possibility of Segmented Assimilation among immigrants, i.e. immigrants retaining their cultural heritage while at the same time being successful in structural terms (mainly in the educational systems).

c) Family relations

The third dimension, family relations, includes the following constructs:

- Family structure (number of siblings, their educational level)
- Parent-child-relationship and family cohesion
- Family negotiations about decisions
- Parents' involvement into school affairs
- Expectations of parents

Number of items

Grade 4: 6 (one of them is only relevant for immigrants)
Grade 9 and 10 (grade 11 in Israel): 14 (one of them is only relevant for immigrants; the resource generator contains of 2 x 4 items)
Mothers: 4 (the resource generator contains 2 x 4 items for natives, 2 x 5 items for immigrants; the position generator contains 2 x 12 items).

Pretest

The pretest of instruments on social capital was conducted in combination with pretests of achievement tests. Results of the pretest were evaluated; this part of the questionnaire was then shortened and translated into Russian and Turkish. A second pretest was conducted in Baden-Wurttemberg mainly for immigrant groups with the aim of discovering comprehension and translation problems in order to finalize the constructs for the main survey.

Date: 08/02/07 – 15/03/07
Place: Mannheim, Baden-Württemberg

N: 76 (4^{th} grade: 6 German, 16 Turkish and 14 Russian children; 9^{th} and 10^{th} grade: 4 German, 14 Turkish and 22 Russian adolescents)

One decision we had to make was whether the mother or the father of the respondent should be interviewed. The question occurred if one parent is able to give valid information on his/her partner's social network as well. Especially with respect to 'weaker' social networks, which might be more related to relations outside the family, it can be expected that social networks of mothers and fathers only partly overlap. In order to test whether this assumption holds and to test which parent gives more valid information, we pretested the position generator and emphasized the respondents' weak ties to their husband's/wife's acquaintances. Results show that the mother knows more persons of her husband's social network than the father knows persons of his wife's social network. Since the mother is also more often the attachment figure for the child, she was chosen as the parent to be interviewed.

5.3 Cultural Capital

Theoretical Background

Cultural knowledge is per definition culturally-specific and hence encompasses resources, which are hardly transferable during migration. Furthermore, it is an asset, which requires time to get accumulated in a new societal context. Cultural integration is a long process in which the behavior and attitudes of individuals change as they develop competences in and understanding of the language, culture and social customs of the dominant group in the receiving society. According to Bourdieu (1983), cultural capital (besides economic and social capital) is the major factor determining individuals' social status. This form of capital consists of knowledge, qualifications, academic title, attitudes and patterns of action, which are acquired in the family of upbringing and within educational systems. He distinguishes three types of cultural capital: embodied, objectified and institutionalized. Most features of cultural capital can be derived from the embodied state. This form of cultural capital is inherited in an individuals' family throughout the process of socialization. The accumulation of this form of capital takes a long time and is only possible through incorporation and time investment by the person itself. A very important characteristic of embodied cultural capital is that it cannot be transmitted through delegation. While incorporation is the way of acquiring embodied cultural capital, the second type, objectified cultural capital, is how cultural capital is expressed. Different features can only be identified through the relation to incorporated cultural capital, i.e. enjoying books, paintings and monuments is only feasible having the ability to understand their meanings. In contrast to incorporated cultural capital, they can be delegated at least materially. In its third form, cultural capital refers to institutionalized academic titles, which are valuable on the labor market.

Aim

In order to consider transmission mechanism from parents to children, we included cultural capital measures in the child's as well as in the mother's questionnaires. Moreover, the study does not only investigate the effects of cultural capital as it is usually done in other studies, namely by asking about cultural activities only. Beside these conventional items, we included questions about factual issues of the native and immigrant cultural knowledge (Turkish, Russian).

Operationalization

The major challenge of measuring cultural capital in our study is that it entails different aspects for children and parents, for natives and immigrants, and for the two societies under investigation. Thus, we decided to focus both on general aspects of cultural capital (e.g., reading) and aspects specific to immigrants only (e.g., language of reading consumption). As a result, we included questions on the following dimensions of cultural capital:

- Reading (number of books and consumption of books and newspaper, language of consumption for immigrants)
- Music and TV consumption (taste, duration and language of consumption)
- Cultural taste of free-time activities (theatre, cinema)

- Familiarity with the German/Israeli culture
- Familiarity with the culture of origin (areas of politics, culture, adage, national symbols and history)
- Extra-curricular activities and precise time-table (the latter only for Israel)

Both national research teams developed factual issues about the native, Turkish and Russian culture. The idea was to capture different cultural topics of this society, namely: politics, culture, adage, national symbols and history. For these different topics a variety of questions has been developed and pretested. Since the final questions are adapted to age groups, questions differ for 4th, 9th and 10th (11th) graders as well as for children and mothers. Furthermore, the also vary between Germany and Israel, even though they follow the basic aforementioned context by capturing at least three cultural dimensions.

Pretest

Cultural capital questions were extensively pretested in Israel. After the first pretest, the questionnaire was adapted to the German setting, translated into Russian and Turkish and pre-tested in Germany as well (Baden-Wurttemberg). The most relevant items were selected to be included in the final questionnaire.

Number of items

Germany

Grade 4: 4 (one of them is only relevant for immigrants, the item battery for factual issues consists of three items)
Grade 9 and 10: 10 (three of them are only relevant for immigrants, factual issues consist of 4 items, newspaper consumption consists of 4 items)
Mothers: 10 (three of them are only relevant for immigrants, one only for mothers of children in grade 4, factual issues consist of 4 items, newspaper consumption consists of 4 items)

Israel

Grade 4: 4 (one of them is only relevant for immigrants, the item battery for factual issues consists of four items)
Grade 9 and 11: 8 (two of them are only relevant for immigrants, factual issues consist of 4 items, newspaper consumption consists of 16 items)
Mothers: 10 (six of them are only relevant for immigrants, one only for mothers of children in grade 4, factual issues consist of 3 items, newspaper consumption consists of 17 items)

5.4 Educational Decision Process

From the perspective of Rational Choice Theory, educational outcomes result from rational decisions of individuals regarding their future educational careers. The decision-makers are, however, not necessarily perfectly informed, such that scholars use subjective beliefs about costs, returns and success probabilities in order to explain educational decisions. The important components of this theory are the following:

- Perceived **Costs** for educational options include, first, material and non-material resources necessary for attending certain educational institutions and, second, opportunity (indirect) costs, which refer to the outcomes of alternative activities that have to be sacrificed while realizing a certain educational career.

- **Probability measures of success** refer to how likely students expect to successfully complete possible educational careers. Important conditions for these factors are ability levels at and their ability development before educational decisions take place as well as the perceived availability of resources and support.

- **Utility from educational returns** refers to differences in the evaluation of various educational returns when the respective educational track is successfully completed.

- **Relative Risk Aversion**: The underlying idea of status maintenance motive is that the social status of the family of origin defines the reference point relative to which a possible educational degree is evaluated as an improvement or deterioration of the status of the family of origin. Educational decisions aim at minimizing the risk of intergenerational downward mobility, whereas the chance of upward mobility is less an incentive for educational decisions.

In addition, the following concepts are often applied in modeling educational decisions:

- **Educational aspirations**: Sociological approaches explaining inequality in educational opportunity have stressed the role of class-specific beliefs and values about educational success and differences in educational preferences, conceptualized as achievement attitudes, norms, aspirations, and values. Parents' and significant others' educational aspirations as well as those of the peer-group influence which educational credentials children and adolescents want to achieve.

- **Educational knowledge**: Since the majority of immigrant parents attended schools in another country than the country of destination, they might be less familiar with the school system of the host society. Not only is their ability to successfully navigate their child through the educational system restricted, they are also unable to transmit relevant information to their offspring throughout later stages in the school career.

Operationalization

Our aim was to develop and pretest measures relevant for the decision making process. The above-mentioned concepts were operationalized in a number of constructs as summarized below:

1. Educational Knowledge and Attitude:

    a) General attitude towards education
    b) Information on educational systems
    c) Utility of education

2. Educational investment behavior:

    a) Choice of track/school form
    b) Educational aspirations
    c) Occupational aspirations

3. Personality:

    a) Risk aversion
    b) Self-esteem
    c) Probability of success

Pretest

The battery of questions on educational decisions was pretested twice in Germany. In Israel, the suggested items were largely based on an on-going project in Tel Aviv schools, so they were carefully pretested as well. After the pretest, results were evaluated and revised if necessary.

6 Questionnaires

6.1 First wave

6.1.1 Main survey

Based on the above described instruments questionnaires were developed, pre-tested, modified and finalized for (a) all transitions (age groups), (b) children/adolescents and their parents, and (c) the all ethnic groups, with a special emphasis on the quality of the translation into minority languages, (d) in both countries, Germany and Israel (see Table 6.1 for an overview).

Particularly the length of the questionnaire for immigrant mothers was problematic. As a consequence, we decided to split this questionnaire into two parts in Germany – one self-completion questionnaire and one questionnaire, which was completed by assistance of the interviewer present. We were able to reduce the total interview length to 70 to 90 min. Only in cases of illiteracy (often the case for Turks), the mother interviews were conducted face-to-face completely.

Table 6.1: Core information on questionnaires in Germany and Israel

	Germany	Israel
Structure	Four parts A Competences B Questionnaire 4th, 9/10th C Self-filling questionnaire mother D Questionnaire mother	Three parts A Competences B Questionnaire 4th, 9/11th C Questionnaire mother
Length	30 min (competence) 10-30 min (questionnaire child) 70-90 min (questionnaires mother)	30 min (competence) 10-30 min (questionnaire child) 60 min (questionnaires mother)
Differences	4th/9/10th: Educational aspiration, music and TV, cultural knowledge Mother: Rational choice, educational and occupational background	4th/9/11th: Additional cultural capital, exact time table

Different life situations of children/adolescents and their parents, of natives and immigrants as well as of respondents who live in Germany or Israel had to be considered. This resulted in 18 questionnaire versions in Germany and 6 versions in Israel. Especially, with respect to national-specific cultural capital aspects, educational aspirations and knowledge, both national teams developed harmonized instruments measuring the same aspects, even though particular questions are not identical. Overall, the following topics are covered in the final questionnaires:

- Demography
- Citizenship
- Education
- Child

- Rational Choice
- Social Capital
- Language
- Cultural Capital
- Identification/Orientation
- Religion
- Parental Education
- Parental Occupation
- Socio Economic Living Standard

6.1.2 Supplement (Mother Questionnaire)

In the beginning of data collection of the first wave it was planned to interview mothers and children personally and part of the data had already been collected this way. After changing the interview mode for children and adolescents from personal interviews to school surveys, mothers were partly interviewed via telephone. The questionnaire therefore had to be adapted for these mothers who were interviewed via phone due to organizational reasons. Therefore, slight changes in question wording occurred. Like the questionnaire for the main survey, the number of questions differs depending on ethnic origin and was translated to the respective language of origin

The questionnaire for mothers of fourth graders differs from the mothers of ninth and tenth graders. Some questions were dropped because they would not fit to the situation of ninth and tenth graders. Also we added some questions that were only relevant for students at the second and third transition.

6.2 Second wave

6.2.1 Germany

Questionnaire for Mothers of Fourth Graders

In families whose child attended fourth grade at the time of the first wave, the second interview was conducted only with the mother. The questionnaire comprises up to 23 questions and varies depending on ethnic origin of the respondents. Different topics are covered like child's present academic situation after the transition from elementary school to secondary level, the (educational) aspirations of the mother or free times activities of the child. Mothers could choose the language in which the interview was conducted (language of country of origin vs. German).

Questionnaire for students of Lower and Intermediate Secondary School

Adolescents who attended the ninth or tenth grade at the time of the first wave were interviewed again for the second wave. As in the mothers' questionnaire the adolescents' questionnaire varies

in number of questions depending on ethnic origin and is composed of the same topics. However, at the beginning there are detailed questions on academic respectively vocational development because after finishing lower and intermediate secondary school students have more choices after graduating compared to students at the end of elementary school who pass on to secondary education. Unlike for mothers' interviews, there was no need for translating the questionnaires here, because the majority of adolescents started school in Germany and the interview for the first wave was also conducted in German, which was not problematic except for very few cases.

6.2.2 Israel

Questionnaire for students of tenth grade:

Students who attended the ninth grade at the time of the first wave were interviewed again for the second wave. The questionnaire consisted of detailed questions on the educational track they are in, their academic achievements, their academic plans as for units of matriculation exams, and their plans for the future: educational, occupational and serving in the army.

Questionnaire for students of twelfth grade:

Students who attended the eleventh grade at the time of the first wave were interviewed again for the second wave. The twelfth grade is the final grade of the secondary education in Israel. The questionnaire consisted of detailed questions on the educational track they are in, their final academic achievements and their plans for the future: educational, occupational and serving in the army.

6.3 Third wave

Questionnaire for students of Lower and Intermediate Secondary School

This questionnaire is similar to the questionnaire of the second wave. Again, we ask questions about the current situation of the adolescents, which are more or less the same as in second wave's questionnaire. Compared to the last wave, the questionnaire was enhanced by several questions, most of them concerning the apprenticeship seeking and finding process.

7 Fieldwork First Wave

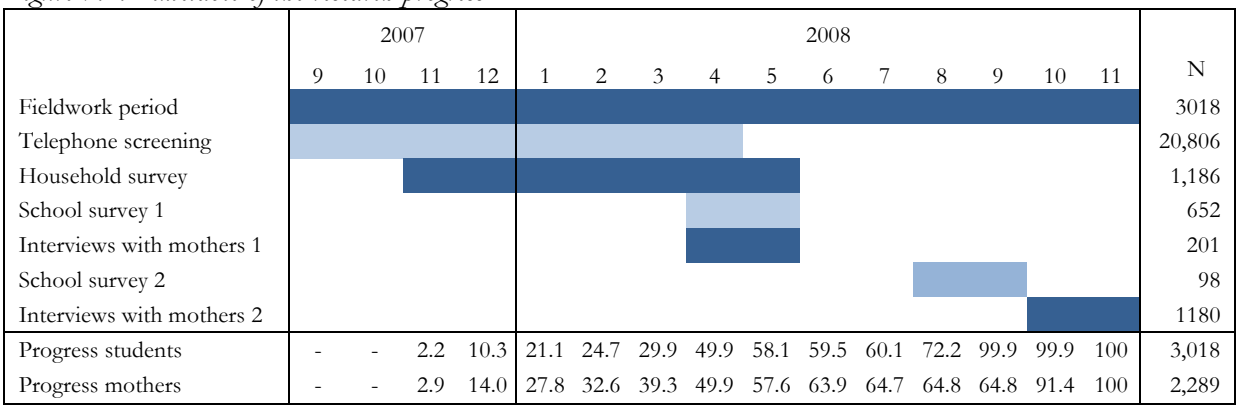
7.1 Germany

The entire fieldwork period lasted from 18.09.2007 to 25.11.2008 (see Figure 7.1). First, telephone-screening interviews were conducted. In addition, we sent out postal screening questionnaires, which were – in case of a positive response – complemented by a screening interview via telephone. After successfully completing the screening interviews and identifying target households, children and adolescents and their mothers were interviewed personally at home.

Due to severe problems to reach sufficient case numbers for several subgroups of interest, we decided to apply additional recruitment strategies: Snowball sampling, Jewish parishes, Russian associations and announcements in Russian newspapers.

Another strategy to further increase sample size was to conduct school surveys. We interviewed students in their schools, their mothers after the school surveys either personally or via telephone. This was done in two time periods, the first in April and May 2008, the second at the beginning of the school year 2008/09 (August to November 2008).

Figure 7.1: Timetable of the research progress



	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	N
Progress students	-	-	2.2	10.3	21.1	24.7	29.9	49.9	58.1	59.5	60.1	72.2	99.9	99.9	100	3,018
Progress mothers	-	-	2.9	14.0	27.8	32.6	39.3	49.9	57.6	63.9	64.7	64.8	64.8	91.4	100	2,289

The research institute SUZ GmbH conducted the fieldwork. They were responsible for coordination and organization of the first wave lasting from 01.09.2007 to 31.05.2008 in close cooperation with the universities of Mannheim and Leipzig. Both school surveys were planned and coordinated by the research associates in Mannheim and Leipzig. The project team members of both universities realized the second school survey.

The following tables provide an overview of the total number of completed interviews by transition and group. In table 7.1 completed interviews with students in all three transitions are shown, separately for the ethnic groups. Since screening interviews were not possible in school surveys and snowball sampling, 173 persons who do not match our sampling criteria were interviewed. These include Jewish Quota Refugees from the FSU who are attending grade 9 and 10 as well as students with another non-German origin than Turkish or FSU as well as FSU

immigrants who did not arrive with the legal status of an Ethnic German. Hence, the final target population consists of 2,845 respondents. 2,206 mothers of this final target population agreed in participating the survey in addition to their child. The distribution by ethnic group and transition can be found in table 7.2.

In almost all cells the originally planned target sizes were realized (table 3.4), with the exception of Jewish Quota Refugees from the former Soviet Union in grade 4 (transition 1). Despite the elaborate search and the use of different strategies it was not possible to reach the target number for this group. Table 7.3 shows the distribution of the subgroups by sampling method:

Table 7.1: Overview of completed students' interviews by group and transition

	Grade 4	Grade 9	Grade 10	Total
Native German	261	271	301	833
Turkish	227	464	395	1,086
Ethnic German	254	304	327	885
FSU Jews	41	3	16	60
Other origin	23	86	30	139
FSU, not Ethnic German	7	5	3	15
Total	813	1,133	1,072	3,018

Table 7.3: Overview of completed mothers' interviews by group and transition

	Grade 4	Grade 9	Grade 10	Total
Native German	246	246	274	766
Turkish	213	292	253	758
Ethnic German	208	203	230	641
FSU Jews	41	-	-	41
Total	708	741	757	2,206

Table 7.3: Overview of completed interviews by sampling method

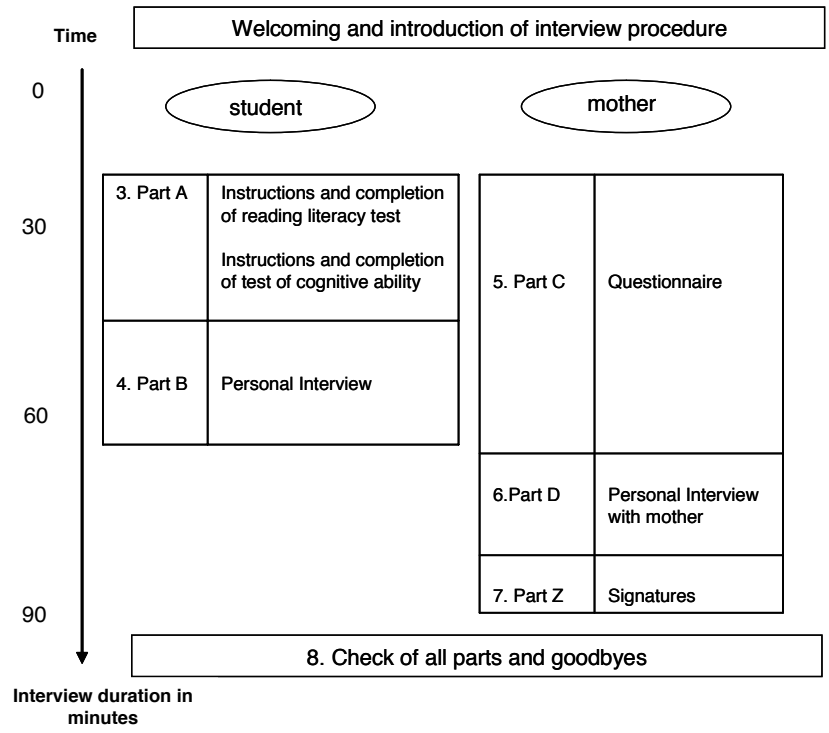
	Native German	Turkish	Ethnic German	FSU Jews	Total
CATI screening	576	324	215	15	1,130
Postal and CATI screening	0	0	11	8	19
Snowball sampling	3	3	8	5	19
Jewish communities	0	0	0	10	10
Russian newspaper	0	0	3	0	3
School sampling	187	431	404	3	1,025
Total	766	758	641	41	2,206

7.1.1 Household survey

Subsequent to a successful screening interview, an appointment for the personal interview with the student and the mother was made. The interview consisted of an achievement test and an interview with the student as well as an interview with the mother (in cases of unavailability of the mother, other interviewees were accepted).

The whole interview situation is illustrated in Figure 7.2. The interview was expected to last one to two hours depending on transition, migration background and mothers' educational level. Interviewees with migration background were able to decide on the interview language (German or foreign language). The interviewer asked for an undisturbed place in order to test and interview the target person. Meanwhile the mothers were asked to fill in the first part of the questionnaire on their own in a different room. After the student's interview was completed, the mother was interviewed face to face by the interviewer.

Figure 7.2: Personal interview



Interview with Student

Interview circumstances can be evaluated drawing on several questions the interviewer had to answer after finishing the household interview[2]. The majority of interviews was conducted in German (overall 74.8 per cent of all non-German students). Only 11.3 per cent of all interviews were conducted mainly or completely in Turkish or Russian, respectively. Interview language

[2] Thus, the following figures only refer to personal interviews of target children. Within schools, the survey was conducted using paper-pencil self-completion questionnaires.

significantly differs between age groups (see table 7.5): Whereas 4th graders were interviewed more often in their heritage language compared to adolescents in grade 9 and 10, still they were interviewer predominantly in German. Comparing ethnic groups, table 7.4 shows that 88 (84) percent of all Turkish (Ethnic German) students were interviewed mostly or completely in German. This is slightly different for Jewish Quota Refugees, where the percentage of students who were interviewed in Russian is higher (around 38 per cent).

Table 7.4: Characteristics of personal interviews with student, by group

	German		Turkish		Ethnic German		Jewish Quota Refugee		Total	
	N	%	N	%	N	%	N	%	N	%
Language of interview (excluding Germans)										
Completely German	-	-	195	59.6	132	55.7	3	7.9	905	54.8
Mostly German	-	-	92	28.1	66	27.9	20	52.6	178	29.6
Mostly native language	-	-	21	6.4	24	10.1	11	29.0	56	9.3
Completely native language	-	-	3	0.9	6	2.5	3	7.9	12	2.0
Missing	-	-	16	4.9	9	3.9	1	2.6	30	4.3
Presence of others										
Mother	293	50.6	124	37.9	80	33.8	18	47.4	515	43.6
Other person	37	6.4	108	33.0	11	4.6	1	2.6	157	13.3
No	238	41.1	73	22.3	137	57.8	18	47.4	466	39.5
Missing	11	1.9	22	6.7	9	3.8	1	2.6	43	3.6
Disruption										
None	439	75.8	175	53.5	174	73.4	35	92.1	823	69.7
Some	111	19.2	112	34.3	51	21.5	2	5.3	276	23.4
Much	14	2.4	23	7.0	4	1.7	-	-	41	3.5
Other	8	1.4	2	0.6	-	-	-	-	10	0.9
Missing	7	1.2	15	4.6	8	3.4	1	2.6	31	2.6
Total	**579**	**100.0**	**327**	**100.0**	**237**	**100.0**	**38**	**100.0**	**1,181**	**100.0**

In order to assess setting and disturbing factors, interviewers were also asked whether other persons have been present during the child interview. Not surprisingly, 4th graders were less likely to be interviewed alone. In almost half of the interviews, the mother was present (table 7.5). Analyzing group differences, Turkish students were less likely to be interviewed alone (22 per cent). At the same time, Turkish interviews were most often accompanied by other persons (33 percent compared to around 5 percent for other groups).

In 93 per cent, interviews were conducted without dramatic interruptions. However, in Turkish interviews more disruptions were reported compared to Russian and German interviews.

Table 7.5: Characteristics of personal interviews with student, by transition

	Transition 1		Transition 2 & 3		Total	
	N	%	N	%	N	%
Language of interview (excluding Germans)						
Completely German	187	52.7	143	57.9	330	54.8
Mostly German	103	29.0	75	30.4	178	29.6
Mostly native language	36	10.1	20	8.1	56	9.3
Completely native language	9	2.5	3	1.2	12	2.0
Missing	20	5.6	6	2.4	26	4.3
Presence of others						
Mother	268	48.5	247	39.3	515	43.6
Other person	82	14.8	75	11.9	157	13.3
No	172	31.1	294	46.8	466	39.5
Missing	31	5.6	12	1.9	43	3.6
Disruption						
None	362	65.5	461	73.4	823	69.7
Some	148	26.8	128	20.4	276	23.4
Much	17	3.1	24	3.8	41	3.5
Other	3	0.5	7	1.1	10	0.9
Missing	23	4.2	8	1.3	31	2.6
Total	**553**	**100.0**	**628**	**100.0**	**1,181**	**100.0**

Interview with Mothers

The household sample with personal mothers interviews comprises 1,186 cases. First, table 7.6 shows that only 5 per cent of mothers did not fill out part C of the questionnaire, which was a self-completion questionnaire, on their own. For another 15 per cent, mothers filled out the questionnaire partly by themselves. Especially Turkish mothers required assistance from interviewers, mainly due to illiteracy.

In contrast to screening interview, where the contact person of the household was not specified, the main interview partner had to be the mother since she is most often the main care person for the child. Only if the mother was unavailable during the fieldwork period, the father or another close relative should be interviewed. Thus, 95 per cent of mother interviews were conducted with the mother. Comparing ethnic groups, Turkish fathers were interviewed more often (around 6 per cent), whereas German and Russian families do not differ in this respect.

Table 7.6: Characteristics of personal interviews with mothers, by group

	German		Turkish		Ethnic German		Jewish Quota Refugee		Total	
	N	%	N	%	N	%	N	%	N	%
Part C alone										
Completely	553	95.5	139	42.5	184	77.6	34	89.5	910	77.1
Partly	8	1.4	118	36.1	46	19.4	1	2.6	173	14.7
No	6	1.0	56	17.1	2	0.8	-	-	64	5.4
Missing	12	2.1	14	4.3	5	2.1	3	7.9	34	2.9
Interviewed person										
Mother	559	96.6	295	90.2	232	97.9	35	92.1	1.121	94.9
Father	8	1.4	20	6.1	1	0.4	-	-	29	2.5
Other person	2	0.4	4	1.2	-	-	-	-	6	0.5
Missing	10	1.7	8	2.5	4	1.7	3	7.9	25	2.1
Language of interview (excluding Germans)										
Completely German	-	-	16	4.9	29	12.2	2	5.3	47	7.8
Mostly German	-	-	39	11.9	67	28.3	9	23.7	115	19.1
Mostly native language	-	-	102	31.2	62	26.2	11	29.0	175	29.1
Completely native language	-	-	159	48.6	74	31.2	13	34.2	246	40.9
Missing	-	-	11	3.4	5	2.1	3	7.9	19	3.2
Presence of others										
Child	206	35.6	95	29.1	48	20.3	9	23.7	358	30.3
Other person	49	8.5	136	41.6	22	9.3	4	10.5	211	17.9
No	305	52.7	79	24.2	159	67.1	21	55.3	564	47.8
Missing	19	3.3	17	5.2	8	3.4	4	10.5	48	4.1
Disruption										
None	449	77.6	149	45.6	181	76.4	32	84.2	811	68.7
Some	105	18.1	132	40.4	49	20.7	3	7.9	289	24.5
Much	11	1.9	30	9.2	2	0.8	-	-	43	3.6
Other	4	0.7	3	0.9	1	0.4	-	-	8	0.7
Missing	10	1.7	13	4.0	4	1.7	3	7.9	30	2.5
Total	**579**	**100.0**	**327**	**100.0**	**237**	**100.0**	**38**	**100.0**	**1,181**	**100.0**

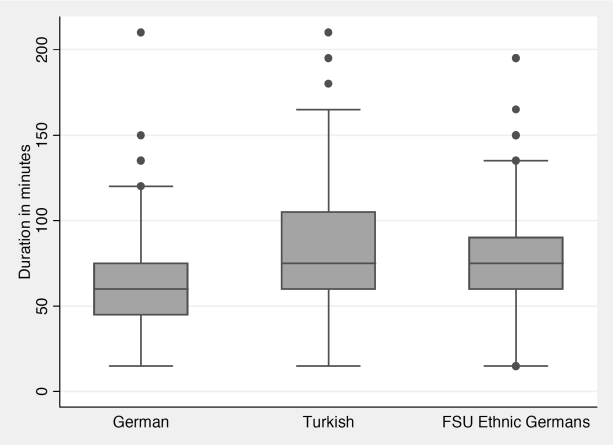
The majority of the interviews were held mainly or completely in the native language of the mother (Turkish or Russian). There are significant differences between groups: Ethnic German mothers wanted to be interviewed in German to a larger extent (40.5 per cent) than Turkish mothers (17 per cent).

In only approximately 50 per cent of cases, the mother was alone during the interview. 30 percent of all interviews were conducted while the child was present, and for another 18 per cent, another person was present while the mother was interviewed. Ethnic German mothers are the group

where interviews were most often conducted alone, while it was more common in Turkish compared to other families that other persons were present (70 per cent of all interviews). Thus, it is not surprising that Turkish interviewer report significantly more disruptions than German and Russian families.

An analysis of interview length (only available for personal mother interviews) shows that interviews with German mothers were shorter (mean: 64 minutes) compared to Turkish and FSU mothers (about 80 minutes). This is mainly due to migration-specific questions in the Turkish and Russian versions of the questionnaire, but also different wishes for communication besides the questionnaire in immigrant families. Figure 7.3 shows means and standard deviations for each group separately.

Figure 7.3: Interview duration (mothers)



Difficulties

No major problems were reported for the interview procedure. Two students did not finish the achievement test part due to mental disorders (attention-deficit hyperactivity disorder). However, we cannot guarantee that interviewer instructions were followed during every interview. Despite the strict order to refuse any help with the achievement test, the possibility cannot be excluded. During the data cleansing process, one interviewer in particular became salient. It seems as if he helped interviewees with achievement and cultural knowledge questions His interviewer identification number (90) can be used as a control variable in data analysis.

Interviewer

The SUZ institute was responsible for interviewer management during the telephone screening and household survey project period. The following section refers to interviewers that were recruited by the SUZ.

Recruitment & Instructions

Originally, it was planned to recruit 150 interviewers, among those 100 bilingual interviewers with proficiency in German and Russian/Turkish. The SUZ searched for these interviewers through newspaper advertisements, announcements at the university and in the Internet. University students made up a considerable part of the staff, however, the SUZ institute did not provide a complete list of the educational composition of all interviewers.

The interviewer training took place between 24.09.2007 and 01.10.2007 in Bielefeld, Duisburg, Frankfurt on the Main, Hamburg and Köln. It lasted 3 hours in total and contained an examination of Turkish and Russian language skills, explanation of contract conditions and general instructions for interviewer tasks. Furthermore, project members explained the screening procedure, practiced handling of the questionnaire; and the interview situation was simulated during the interviewer training. All interviewers received the following material:

- Interviewer Manual
- Copies of the main and screening questionnaires
- Data protection rules
- Checklist
- ID Cards

Coordination & Supervision

186 interviewers worked for the project. Successful screening results (hits) were given to the interviewers three times a week to ensure that main interviews were conducted soon after the screening interview. Screened households were asked whether they preferred female or male interviewers. Matching of interviewer and interviewees was made based on that preference. Interviewers were asked to complete the interview as soon as possible. After four weeks, they had to report the current status of the interview (whether they already made an appointment etc.) This time interval was shortened to two weeks later on to induce quicker work of the interviewer. In case an interviewer did not make an appointment with the household during that time period, household information was passed on to another interviewer. Check-up-calls were made to ensure interview quality. It also can be assumed that all incentives were handed out even though some signatures were missing.

Interviewer characteristics

SUZ institute provided information on interviewers for 147 interviewers. Among these 147 interviewers, 91 were females and 56 were male. 106 conducted interviews in North Rhine-Westphalia, 16 worked in Hesse and 25 in Hamburg. In the data set, 151 interviewers can be identified via interviewer ID. Of those, 32 completed interviews exclusively in German. The data set includes 50 Turkish and 63 Russian interviewers. For 6 interviewers language group allocation was not possible since they conducted interviews both in Turkish and in Russian language.

Difficulties

Some interviewer also held other jobs during the interview period. Therefore, for these interviewers completed interview numbers were lower than initially expected. The SUZ terminated contracts with these interviewers. Consequently, additional (and permanent) interviewer recruitment became necessary, which was very costly.

7.1.2 School survey

Prior to the school survey we adapted the personal questionnaires for child in grade 4 and adolescents in grade 9 and 10 in order to use it as a self-completion questionnaire for school surveys. We used two versions of the questionnaire, which differ in the version of the cognitive ability test as well as the order of the language test and cultural knowledge questions. Furthermore, we reformulate several questions, answers and instructions in order to facilitate filling out the questionnaire. Moreover, we added questions on the educational and occupational status of the parents to the students' questionnaire for transition 2 and 3, and questions on countries of birth of parents for all three transitions. The reason for this last adaption was the possibility of refusal to the subsequent mother interview.

The pretest of the school survey and the questionnaire was conducted in four schools in Leipzig and one school in Mannheim.

Process

We asked federal ministries of education in all federal states for a permission to contact and interview students in their schools. Based on school statistics, we then sampled schools with high proportions of Turkish and Russian students in our target grades. We contacted headmasters and asked for permission to conduct a survey at their schools. Two weeks before the survey, we sent cover letters (for parental agreement) and an information letter for the class teacher on how to hand out and store these cover letters until the school survey team received them at the day of the school survey.

The school survey teams consisted of one coordinator who conducted the survey (e.g., read out the instructions for the achievement tests) as well as Turkish and Russian-speaking students who helped in case of translation problems.

During two school hours of 45 minutes each, students did the achievement tests and filled out the questionnaire. At the end, all students were asked to fill out a contact sheet (name, address, telephone number, panel consent). The contact sheets were immediately separated from the respective questionnaires, but can be matched using the household ID on both documents. A second letter for the mother of the students in which an additional contact was announced was passed on to every participating student.

Table 7.7 displays the number of students in sampled schools and participating students per ethnic group and grade. The number of students in schools is derived from official school

statistics of the federal states North-Rhine Westphalia and Hamburg. For Hesse, we again have to rely on information provided by the schools. Since we do not have information for some schools in Hesse, this might results in an underestimation of the total student number in schools and, therefore, in an overestimation of the response rate. An additional problem occurs because school statistics rely on nationality rather than immigration background as defined in our study. As a consequence, German students in sampled schools comprise all students with a German nationality, and Turkish students are students who hold a Turkish nationality. Response rates should, hence, be interpreted with caution. A final remark pertains to German students. In the majority of schools, we asked explicitly to survey Turkish and Russian children and adolescents only in order to reduce costs. The participation rate for the German sample can therefore not be interpreted as response rate.

Table 7.7: School survey overview

	German	Turkish	Ethnic German	Other origin	Total
N students in sampled schools					
Grade 4	387	54	179	-	620
Grade 9	2465	522	332	-	3319
Grade 10	2974	432	353	-	3759
Total	5826	1008	864	-	7698
N participating students in sampled schools					
Grade 4	63	43	121	31	255
Grade 9	113	409	266	94	882
Grade 10	78	307	261	49	695
Total	254	759	648	171	1832
Participation rate					
Grade 4	16.3%	79.6%	67.6%	-	36.6%
Grade 9	4.6%	78.4%	80.1%	-	23.7%
Grade 10	2.6%	71.1%	73.9%	-	17.2%
Total	4.4%	75,3%	75,0%	-	21.6%

Steps in school surveys

Before the survey

- Welcome at the secretary
- Introduction to headmaster
- Asking for a room for the survey
- Preparation of questionnaires and other materials

Survey

- Introduction to the class
- Instructions for students how to do achievement tests
- Distribution of questionnaires and contact sheets
- Time measurement during achievement tests
- Instructions for students how to fill out the questionnaires
- Check questionnaires for completeness and severe mistakes
- Writing down identical ID on contact sheet and questionnaires
- Hand out of 10 Euro incentive and data protection sheet
- Hand out of second parental letter

Attendants

- Supervising teacher
- Interviewer/assistant, Russian and Turkish
- One or two coordinators
- Students

Materials

- Student questionnaires in version A and B for 4th, 9th and 10th graders with and without migration-specific questions
- Parental agreements
- Contact sheets
- Receipts
- 10 Euro for each student
- Second letter for parents
- Data protection sheet

Students' contact information were digitalized and distributed to the interviewers who were instructed to begin immediately with contacting mothers by telephone to ask for personal interviews.

Interview with Student

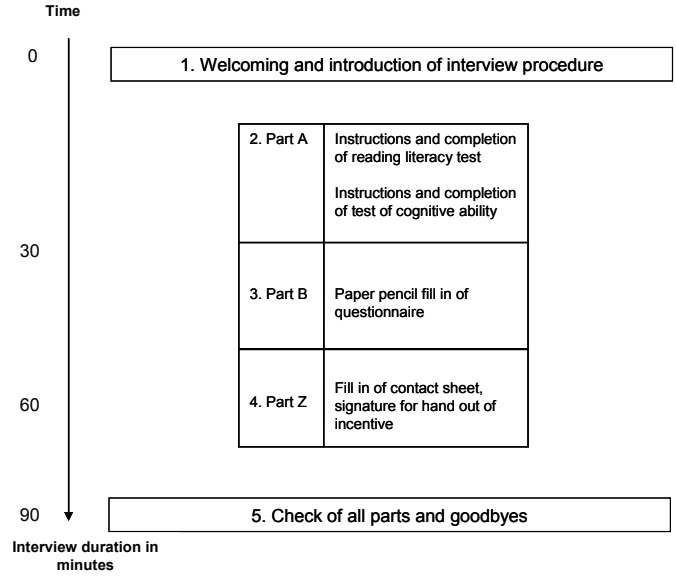
The interview situation of the school surveys differs from personal interviews to a great extent. First, no prior screening took place before the main interview, we only relied on teachers who were asked to distributed parental agreement letters only Turkish and FSU students. Second, both questionnaire parts (achievement tests and main questionnaire) were conducted within schools using a self-completion questionnaire.

Based on expected participation numbers (communicated by schools a few days before the scheduled school survey), sufficient staff was sent to each school. Three survey teams conducted surveys within schools (Leipzig, Mannheim, Duisburg), whereby at least one head coordinator

(research assistants of Leipzig or Mannheim University, employee of SUZ institute) and at least one bilingual interviewer assistant per language group.

School surveys lasted two school hours. All schools provided a classroom that was big enough to ensure that each student has an own table to his/her disposal in order to avoid cheating in achievement tests. It was the decision of the schools whether a teacher was present during the survey (but we strongly recommended a teacher to be present). At the beginning of the first school hour, the interviewer teams introduced themselves and explained the purpose of the survey. Only students with a signed parental agreement were allowed to take part in the survey. Then, the first achievement test (reading comprehension) was introduced, whereby all instructions were group instructions and all questions had to be asked beforehand. In order to minimize influences of individual interviewers or bilingual assistants, they were provided with a short manual including prepared answers to expected questions. After 20 minutes, the survey continues with the cognitive ability test. After instructions for this test part, students had 8 minutes to complete it. After finishing the whole achievement test part, head coordinators gave short instructions on how to fill out the questionnaire. Every student, however, filled out this questionnaire by him-/herself. Finally, students were asked to fill out a contact sheet. As incentives, candy and 10 Euros were distributed among all participating students. Figure 7.4 shows the interview situation in detail.

Figure 7.4: School survey



Difficulties

There were very few difficulties, which are mainly caused by unexpected high or low numbers of participating students. Also, there were some schools that provided too small rooms leading to overcrowded classrooms. Avoidance of cheating and communication in those settings were rather difficult. Especially keeping students quiet when reading out instructions for achievement tests was rather difficult. Therefore, we cannot guarantee that all students understood these instructions.

Interview with mothers

After school survey (approximately 1.5 months later), mother interviews were conducted. Between February and June 2008, 201 personal mother interviews were conducted. 98 additional interviews were conducted as CATI due to interviewer shortages and remote household location. These 98 CATI interviews were organized by SUZ (until summer 2008). For all mothers interviewed during the supplement data collection (n=804), the University of Mannheim was responsible for telephone interviews. In Mannheim, interviews were conducted every day except Sundays between 9 a.m. and 8:30 p.m. At the beginning of the CATI interviews, interviewers offered German or the respective native language as interview languages. The questionnaire was adapted and shortened to 45 minutes in order to avoid a high number of refusals or interruptions, whereby important questions (screening information, social background) were asked at the beginning of the interview and less important questions were dropped completely.

As Table 7.7 shows, CATI interviews were mainly conducted with the mother of the students. This is true for all ethnic groups. As reported also for personal interviews, Turkish families were less likely to be interviewed completely or mostly in German (13.2 per cent), while this is true for 21.9 per cent of Ethnic German mothers.

Table 7.7: Characteristics of telephone interviews with mothers, by group

	German		Turkish		Ethnic German		Other origin		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Interviewed person										
Mother	179	95.7	324	92.8	291	96.4	62	96.9	856	94.9
Father	8	4.3	24	6.9	11	3.6	2	3.1	45	5.0
Other person	-	-	1	0.3	-	-	-	-	1	0.1
Language of interview (excluding Germans)										
Completely German	-	-	32	9.2	51	16.9	39	60.9	122	17.1
Mostly German	-	-	14	4.0	15	5.0	1	1.6	30	4.2
Mostly native language	-	-	28	8.0	99	32.8	8	12.5	135	18.9
Completely native language	-	-	267	76.5	130	43.1	14	21.9	411	57.5
Missing	-	-	8	2.3	7	2.3	2	3.1	17	2.4
Total	**187**	**100.0**	**349**	**100.0**	**302**	**100.0**	**64**	**100.0**	**902**	**100.0**

Interviewer

Three different teams coordinated school surveys (Leipzig, Mannheim and Duisburg). Personal and telephone interviews with mothers after school surveys were managed by staff of Leipzig University who recruited interviewers and assigned cases to certain interviewers. For supplement school surveys (August – October 2008) only Mannheim and Leipzig were responsible for data collection.

Recruitment & Instructions

For all schools surveyed by SUZ institute, interviewers from Duisburg were responsible to conduct school surveys. Interviewer recruitment and schooling was similar to personal interviews (see section 7.5.1). It additionally concentrated on the specific classroom setting.

For school surveys planned by the team of Leipzig, interviewer were recruited via universities in the respective cities. Faculties of Sociology, Social Science and Psychology as well as Language faculties (such as Orientalism and Slavic studies) where asked to put up an announcement on the blackboard with information on the job and contact data. Additionally, student representatives of each faculty where asked to include the job advertisement in their newsletters. Research assistants in Leipzig selected candidates based on work experience and bilingual language skills. Short telephone interviews were held with each selected person. Overall, 34 interviewers were recruited in Hamburg in March 2008. Two schoolings were offered and each interviewer was supposed to attend one where they got to know the questionnaire, ability tests and the overall interview procedure. Every interviewer received five to ten mother questionnaires to conduct these interviews after the school surveys took place.

Coordination & Supervision

After completing school surveys, the SUZ institute ensured that all interviews were handed to interviewers within two days after the school survey. For the interviewers coordinated by the University of Leipzig, coordination was only necessary for the interviewers in Hamburg (April 2008) since these are the only interviews that were conducted personally and not via phone. After digitalizing contact information, households were assigned to interviewers of the same language background. Interviewers were asked to report back to the team of Leipzig University two weeks after they received contact information. After completion household interviews, interviewers deleted all contact information. In general, Russian-speaking interviewers were more successful in realizing mother interviews than Turkish students.

Difficulties

For personal interviews there were some interviewers that did not complete all interviews they were supposed to. In fact, two Turkish interviewers recruited for personal mother interviews terminated their contract before finishing one single interview. One SUZ interviewer finished working for us without having any appointment; since it was to late to make additional appointments, all of these cases were done as CATI interviews. Some interviewers had problems with contact data who were entered incorrect or wrong telephone numbers were given.

CATI Interviews

For telephone interviews following supplement school surveys, the team in Mannheim was responsible for organization. We recruited interviewers via announcements on blackboards at the Universities of Mannheim and Heidelberg, but also via email by contacting interviewing formerly

employed in similar projects at the Mannheim Center for European Social Research. A total of 45 interviewers were employed of which three quit after the first instructional meeting. All interviewers participated in a two-hour training session in order to get familiar with the interview procedure. Since CATI-interview with mothers of the first wave were simultaneously conducted with the second wave interviews of respondents interviewed between October 2007 and May 2008, the same interviewers were employed for both study parts (for more information see section 8).

7.2 Israel

In Israel, all interviews were face-to-face interviews. In those cases when a telephone number of a household was available, the interviewer called to schedule a meeting. The most preferred way was to interview the student and his mother at the same meeting. It was more difficult to schedule such meetings for the older cohorts. In those cases, the interviewer had to schedule two meetings. In cases when a telephone number of a household was not available, the interviewer went to the household address and interviewed, if the interviewee was available at the time of the interviewer's visit, or scheduled a meeting for future time.

We used advance letters that the interviewers put in the household mailbox or hand out to the family at the first visit. We encouraged interviewees to look at the B.I. Cohen Institute (field agency) website to learn more about the project and the researchers. We found these actions to be very efficient in order to reduce refusals. We also used small incentive for all households, a coupon of 50 NIS (approximately 10 Euro). Average interview duration for mothers was 60 minutes. Interviews with immigrants were longer that with non-immigrants, because of special questions for immigrants. The interview of mothers of 4th graders was longer than of mothers of the older cohorts, because they had to answer the "day schedule" module for their children. Average interview for the older cohorts was 50 minutes, mainly because competence tests needed 30 minutes on average. The interview of 4th graders was the shortest, 30 minutes on average.

Difficulties

The initial plan was to start interviewing right after the end of the Jewish holidays [mid October 2007]. However, the Israeli secondary school teachers went on strike and most seventh to twelfth grade pupils did not go to school for about 50 days. We decided to begin the fieldwork for the youngest age group [4th graders] as scheduled. The strike ended in mid December [December 16th]. During the strike, it did not make sense to interview the two older age groups because quite a few of the variables that we measure would be affected by the strike (e.g., time-use, curricular choice, grades in school). We started the fieldwork for the two older age groups two weeks after the end of the strike [beginning of January 2008]. Fieldwork ended in June 2008. Due to the strike, the oldest cohort, 11th graders, and to a less extent the 9th graders faced intensive studying toward the end of the year and the approaching final exams. We faced more difficulties in convincing the older cohort students to participate, and more interviews with "split meetings" (interviewing the student and his/her mother in different meetings) were conducted. As a result, we decided to stay in field until the end of the academic year, June 2008.

Interviewer

Recruitment & Instructions

We recruited 32 interviewers for the survey. We started with B.I. Cohen Institute (field agency) senior face-to-face interviewers and recruited new interviewers, mainly Russian speakers. The new interviewers were recruited through newspapers [national and Israeli Russian] and through announcements at universities, colleges and in the Internet (job offering websites). New interviewers were recruited mainly at the beginning of fieldwork and when fieldwork for the older cohorts begun (after Israeli secondary school teachers' strike was over). All new interviewers received general interviewing briefing and all interviewers received project specific briefing and training in refusal conversion.

Coordination & Supervision

Overall 32 interviewers worked for the project. Each interviewer received a list of approximately 20 households and had to report the result of each contact attempt. Interviewers reported to the office once a week, and delivered interviewing materials back to the office once to twice a month.

No contact: At least 5 face-to-face contact attempts had to be made at different days of the week and different times of the day, for a household to receive final status of 'no-contact'.

Refusals: at least 3 refusal conversions had to be conducted by the interviewer. Than, the details of the household were sent to the office, and at least 2 more refusal conversions were made (by the office or by different interviewer).

Quality check: the office conducted a quality check for 30 percent of the interviews of every interviewer. The quality check was conducted by calling the household, verifying the interviewer's visit and asking factual questions from the interviews (mother and student), and about interviewing procedure.

Fieldwork strategy: by putting extra emphasis on quality and production, we rewarded interviewers with high production.

Difficulties

We found that it was hard to recruit bilingual Russian-Hebrew interviewers. The interview of immigrants, both students and mothers needed ability in both Russian and Hebrew. Immigrant students were interviewed in Hebrew, but the cultural capital module had a section that was giving in Russian (familiarity with Russian culture). Immigrant mothers could choose whether they prefer to be interview in Hebrew or in Russian. In any case, the cultural capital module had a section in Russian that required a Russian-speaking interviewer. It was more difficult than we anticipated to recruit bilingual Russian-Hebrew interviewers. Thus, we recruited interviewers mainly throughout the fieldwork period.

8 Fieldwork Second Wave (Main Survey) and First Wave (Supplement)

8.1 Germany

In October/November 2008 the second wave of the main survey sample and the first wave of the supplement sample of the project "Immigrants' Children in the German and Israeli Educational System" was conducted. The telephone interviews were realized in the telephone laboratory of the Mannheim Centre for European Social Research (MZES) of Mannheim University. The data collection was conducted by Tobias Roth and Zerrin Salikutluk (administration of telephone interviews), Joerg Dollmann (questionnaire programming), supported by Elena Boldin and Mara Ding (research assistants) and supervised by Prof. Dr. Irena Kogan and Prof. Dr. Frank Kalter (project administration).

The telephone survey was conducted with those families that were interviewed by the SUZ institute in the past school year and agreed to the panel permission as well as mothers of students in the supplemented sample, which were interviewed in the school year 2008/2009.

Tables 8.1 and 8.2 show the distribution of target subjects by ethnic background and grade. From these tables it appears that there is a strong variation in the number of cases between ethnic groups as well as grades. Considering for example Turkish and Russian adolescents attending ninth grade in table 8.1, one can see that there is a difference of 100 cases. The minimum number of cases, settled at 220 per grade and ethnic background, could be achieved by the SUZ only for two groups. Consequently a supplementary data collection was indispensable.

Table 8.1: Target Subjects Wave 2

	Grade 4	Grade 9	Grade 10	Total
German	197	157	221	575
Turkish	156	226	202	584
Russian	179	126	149	454
Total	532	509	572	1613

Table 8.2: Target Subjects Wave 1

	Grade 4	Grade 9	Grade 10	Total
German	73	135	77	285
Turkish	44	186	139	369
Russian	94	161	162	417
Total	211	482	378	1071

8.1.1 Pretest of Questionnaires and Programming

Table 8.3: Average Duration of Pretest Interviews by Ethnic Background

	Mothers	Adolescents
German	10.59	9.88
Russian	14.06	11.93
Turkish	12.38	10.49
Total	12.34	10.77

The pretest was conducted to check the two questionnaires for the second wave as well as the programming with Win-CATI. For this purpose we interviewed two mothers and three adolescents of each ethnicity. The interviewed persons were acquaintances of the interviewers. They were told in advance about date and time of the call to make sure they would be available at this time. The adapted questionnaires for the telephone survey had already been used by the SUZ for the final stage of the main phase of data collection. They were available in a programmed version and could be adopted after some corrections.

Due to the subsequent use and the length of both questionnaires, we renounced pretesting them by calling test persons. For the questionnaires of the second wave, however, a pretest was inevitable because they had been newly developed for our use and had never been conducted before. This pretest served among other things for determining the average duration of the interviews. At the same time the comprehensibility of the questions was tested. Most importantly, the pretest enabled us tot test if the composition and structure of the questionnaire as well as the programming that was specifically developed for the second wave worked out. Particularly, the attempt to cover all possibilities that students of lower and intermediate secondary school have after graduating, required to test the complex composition and filtering. Based on Table 8.3, it becomes evident that the intended maximum duration of 15 minutes for an interview was not exceeded. Thus an abbreviation of the questionnaire was not needed. In a discussion with the interviewers of the pretests we reviewed the questionnaires again. Hence we find out that the questions were easy to understood, that the possibility to switch between languages during an interview was helpful and that the filters were programmed correctly and ran smoothly. Within this feedback discussion there could also be obtained important hints for the interviewer instruction.

8.1.2 Interviewer and Interviewer Instruction

1. Recruitment

Interviewers' recruitment was done in different ways:

- Announcements at the University of Mannheim (in libraries and faculties)
- Announcements at the Students Council for Slavic Studies at the University of Heidelberg
- Emails to persons that had worked as interviewers at the MZES before

Most of the German and Turkish interviewers could be enlisted via email and therefore have already experience in interviewing. The majority of the Russian interviewers however applied in response to the announcement at the University of Heidelberg.

2. Interviewer Characteristics

For the selection of the interviewers we focused on bilingual interviewers with very good German proficiency because they could – if required – also do the interviews with German mothers and the adolescents of each ethnic groups. Table 8.4 gives an overview for other important factors.

Table 8.4: Interviewer Characteristics

	N	Percent
German	9	21.43 %
Turkish	11	26.19 %
Russian	22	52.38 %
Female	36	85.72 %
Interview experience	14	33.33 %
Mean age	26.57 years	

3. Interviewer Instruction

The interviewer instruction consisted of three sessions, each between 1.5 und 2 hours. The first (theoretical) part of the interviewer instruction took place one week before the main data collection phase. For this purpose we offered 4 dates because of the large number of interviewers (45). Thus we could scale down the number of people to a maximum of 14 per session and additionally ensured that every interviewer could attend on one date. In this part of the instruction we introduced the project to the interviewers (research question, target subjects, different waves and questionnaires etc.), gave general advice to a proper conduction of telephone interviews and discussed organizational issues. Besides, we handed out a handbook to the interviewers as well as printed questionnaires that they could acquaint themselves with the contents of the questionnaires before the practical part of the instruction.

In the first week of the survey period, we carried out the second (practical) part of the interviewer instruction on Monday and Tuesday (three dates per day). It took place in the telephone laboratory and was arranged as follows: First of all we discussed again the constitution of both second wave questionnaires and potentially problematic questions. At the same time interviewers already had the opportunity to get familiar with the programmed versions of the questionnaires and the CATI-Software at one of the workstations by clicking through the questions. After this the interviewers had the time to go through the questionnaires at a stretch again. At the end of the instruction, interviewers conducted test interviews by calling and interviewing each other by

simulating real interview situations. This way the interviewers could practice the situation under realistic conditions and in case of difficulties we could discuss individual weaknesses and make some suggestions for improvement. In the last hour we started with the real interviews. In the second week of the survey period the third part of the interviewer instruction took place on Monday and Tuesday. It was identical to the second part, but this time we discussed the steps for the questionnaire of the first wave.

8.1.3 Data Collection

The main data collection took place in the telephone laboratory of the MZES/University of Mannheim between October 13th 2008 and November 29th 2008. To prevent language barriers, mothers could choose if they wanted to be interviewed in German or Russian respectively Turkish (adolescents were interviewed in German only). For this purpose the questionnaires for the mothers were available as well in German as in Turkish and Russian. In the first two weeks we kept a strict separation with Turkish (German, Russian) interviewers calling only Turkish (German, Russian) respondents. At a later stage we eased this restrictions for the interviews with adolescents, who were not given the opportunity to do the interview in the language of origin.

The interviews were conducted daily (except Sundays) from October 13th until November 3rd 2008 in three shifts from 9 a.m. to 8.30 p.m. (Shift 1: 9 a.m. - 12 p.m.; Shift 2: 2 p.m. - 5 p.m.; Shift 3: 5.30 p.m. - 8.30 p.m.). All in all we had eleven work stations, whereby in the first three weeks between 8 and 9 of these stations were used. In the first two weeks the interviewer constructions took place on Mondays and Tuesdays in each of the shifts. In the first week we only conducted interviews of wave two. We paid attention to only call mothers, not adolescents during the early shift from 9 a.m. - 12 p.m. In the second week we only conducted interviews from wave one except the ones from wave two that had made an appointment. From the third week on we conducted both, interviews from wave one and wave two.

Since we had completed the majority of interviews after the third week, we only needed a part of the interviewers. We continued with the best interviewers (5 German, 4 Turkish and 11 Russian native speakers). From the fourth week on we only called between 4 and 6 hours per day. We mostly interviewed in the evenings because this time turned out to be the most efficient. Nevertheless, we called in the mornings and afternoons at least once a week to make sure that contacting was attempted at every time of the day.

Duration of Interviews

For Germany, we were able to measure the duration of the interviews (in Israel, the CATI software does not provide data). Table 8.5 shows the average duration of an interview for each questionnaire. The duration is displayed separately for each ethnic group. In all four versions of the questionnaires the interviews with German respondents took the shortest. However this fact is not surprising, since Germans were asked fewer questions than migrants. Noticeably, interviews with migrants from the former Soviet Union took the longest in each version, even though they were asked the same number of questions as the Turkish respondents. According to inter-viewer reports this effect is due to a particularly high talkativeness of Russian mothers.

Table 8.5: Average Duration of Interview by Nationality and Wave

	Average Duration in Minutes
Wave 2 Transition 1 (Mothers)	
Germans	9.98
Ethnic Germans	14.28
Turks	12.08
Total	**12.11**
Wave 2 Transition 2 (Adolescents)	
Germans	9.09
Ethnic Germans	12.60
Turks	11.75
Total	**11.15**
Wave 1 Transition 1 (Mothers)	
Germans	29.00
Ethnic Germans	40.09
Turks	36.00
Total	**35.30**
Wave 1 Transition 2 (Mothers)	
Germans	23.71
Ethnic Germans	35.60
Turks	26.46
Total	**28.59**

8.1.4 Response Rates

Response rates of first wave

Table 8.6: Response rates Wave 1, 4th graders

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**73 (100)**	**44 (100)**	**94 (100)**	**211 (100)**
Interview Completed	54 (74)	31 (70.5)	71 (75.5)	156 (73.9)
Not available	9 (12.3)	6 (13.7)	10 (10.6)	25 (11.8)
Refusal	10 (13.7)	6 (13.6)	13 (13.8)	29 (13.7)
Language Problems	0	1 (2.3)	0	1 (0.5)

With around 74% of Mothers out of 211 cases an interview could be completed (see table 8.6). The response rate is lowest for Turkish mothers (70.5%) and highest for Russian mothers (75.5%). German mothers are placed between these two groups with a difference of 1.5%-points to Russian mothers. The most common reason for failure was refusal which makes 14% in all ethnic groups, followed by respondents that were not available during field work (wrong number, no contact, vacation, occupation etc.); another part could not be contacted because of wrong telephone numbers. In only one case the interview could not be completed due to language problems. This case was about a Kurdish family where the mother could neither speak German nor Turkish.

Table 8.7: Response rates Wave 1, 9th and 10th graders

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**212 (100)**	**325 (100)**	**323 (100)**	**860 (100)**
Interview Completed	155 (73.1)	246 (75.7)	230 (71.2)	631 (73.4)
Not available	19 (9.0)	31 (9.5)	25 (7.7)	75 (8.7)
Refusal	33 (17)	43 (12.8)	68 (21)	147 (17.1)
Language Problems	2 (0.9)	5 (1.5)	0	7 (0.8)

The response rate of adolescents' mothers was also over 73%, whereas we find some variance in the response rate by ethnic groups (Table 8.7). The refusal rates for mothers of adolescents than for mothers of fourth graders. Language problems are also found more often in this group. The two cases in the German category, however originated from other countries (India and Italy). The five cases that we lost due to language problems in the Turkish group were again Kurdish families. There is only little difference between the response rate of grade 9 and 10 mothers).

Response rates of second wave

Table 8.8: Response rates Wave 2, 4th graders

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**197 (100)**	**151 (100)**	**179 (100)**	**527 (100)**
Interview Completed	188 (95.4)	131 (86.8)	162 (90.5)	481 (91.2)
Not available	5 (2.06)	13 (8.6)	16 (8.9)	34 (6.5)
Refusal	4 (2)	7 (4.6)	1 (0.6)	12 (2.3)
Language Problems	0	0	0	0

Table 8.9: Response rates Wave 2, 9th and 10th graders

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**377 (100)**	**428 (100)**	**275 (100)**	**1080 (100)**
Interview Completed	346 (91.78)	348 (81.31)	241 (87.64)	935 (86.57)
Not available	18 (4.77)	67 (15.65)	27 (9.81)	112 (10.37)
Refusal	13 (3.45)	13 (3.04)	7 (2.55)	33 (3.06)
Language Problems	0	0	0	0

In the second wave we find a total response rate of 91.2% for mothers of fourth graders (Table 8.8). However, the response rate differs strongly for the ethnic groups. Turkish families have the

lowest recourse with 86.8%, whereas German families have the highest with 95.4%. Russian families participated in the second survey to 90.5%. The main reason for non-response is that respondents were not available. Only 2% of respondents refused actively to take part on the survey. For adolescents the response rate is about 86% with strong variations between ethnic groups (Table 8.9). 92% of German, 87.4% of Russian, and 79.4% of Turkish adolescents agreed to take part in the second wave. Most notably is the high rate of "not available" for Turkish adolescents, which covers about 15% of the total sample of Turkish adolescents. These cases could be reached neither through the home phone number nor on the cell phone. Also the number of Turkish adolescents who refused actively is very high compared to Russian ones. We examined that the majority of cases that could not be interviewed because of wrong telephone numbers were also cases not having completed mother interviews from the first wave. For the first wave the SUZ chose different approaches for mothers' interviews. The main part from wave one was questioned at home via personal interviews with child respectively adolescent and mother. Relevant families were found via a screening-questionnaire by phone or by mail. As this strategy did not lead to the desired number of cases, we switched strategies. Instead of interviewing mothers and children respectively adolescents at home we found relevant pupils via schools and interviewed them there. Their mothers were interviewed either telephonically or personally. Within the school survey the SUZ only interviewed Russian and Turkish pupils for which reason there are no German adolescents without a mother interview. The following table (Table 8.10) gives an overview over response rates by mother interviews. Regarding the response rates separately by completed mother interviews from wave one, it appears that the response rates in both ethnic groups are very high (89 resp. 92%) when there is a mother interview.

Table 8.10: Response rates in Consideration of Mothers' Wave 1 Interviews

	T *(%)*	*T Total*	R *(%)*	*R Total*
Mother Interview	226	253	185	201
	(89.3)	(100)	(92)	(100)
No Mother Interview	118	176	57	72
	(67)	(100)	(79.2)	(100)

Table 8.11: Percental Refusal Rates of Adolescents by Ethnic Background of Interviewer

	Respondents		
Interviewer	**G**	**T**	**R**
G	6 / 250	1 / 6	/
	2.3%	14.29%	
T	1 / 68	10 / 139	/
	1.45%	6.71%	
R	5 / 29	18 / 199	6 / 244
	14.71%	8.3%	2.4%

As the interviews of the adolescents were conducted in German, we did not have to pay attention to the ethnic background of the interviewers. That means that all interviewers could call respondents of each nationality independent of their mother tongue. Table 8.11 shows refusal rates of adolescents by ethnic origin of respondent and interviewer. The first number are refusals, the second one are completed interviews. The percentage of refusals is calculated by dividing refusals by sum of refusals and completed interviews. German adolescents have the highest

refusal rate for Russian interviewers. Between German- and Turkish-speaking interviewers there is scarcely a difference. Turkish adolescents have the highest refusal rate for German and the lowest for Turkish interviewers. Russian adolescents were only called by Russian interviewers and could be interviewed within a very short period of time due to the high number of Russian interviewers. Although we cannot draw conclusions because of the low number of cases, the table indicates a certain advantage for interviewers with the same ethnic background as respondents.

Interview Partner

The interviews should always be conducted with the mothers (except for transition 2 and 3). Only in exceptional cases it was allowed to conduct the interview with fathers or other persons.

Table 8.12: Interviewed Parent

	Mother	Father	Other Person
W1U1	155	6	0
	(96.3)	(3.7)	
W1U23	620	30	4
	(94.8)	(4.6)	(0.6)
W2U1	490	9	0
	(97.6)	(2.4)	

For example, if the mother does not live in the same household as the child, passed away or is not available during field phase because of hospital stay, vacation or employment. If we interviewed a father in wave one, we also required to interview the father again in wave two. The following table (Table 8.12) shows that 4-5% of the interviews in our current wave were not conducted with the mother. Among the adolescents there is no case where the interview could not be conducted with the adolescent him- or herself.

8.1.5 Particularities

Within the data collection of the supplement through school surveys, some siblings were included in the sample. For the telephone interview with the mothers of these cases we combined two methods to keep their effort low. Only a small part of the questionnaire directly concerns the target child, so it is not necessary to do the complete interview two times. The relevant questions for the second child were printed out as a separate questionnaire. The mothers' answers were then entered via paper-pencil-method. Some cases provided by the SUZ were lacking important questions from the first wave, e.g. mother's country of birth. Since some questions vary depending on mother's country of birth, it would not have been possible to pose the questions correctly in the second wave due to missing information. To avoid wrong filtering, we requested the missing information via the paper-pencil-method on the telephone before starting the actual data collection of wave two. Subsequent to the screening-questionnaire we conducted CATI-questioning as usual. We also changed and corrected the programming of the telephone questionnaires by the SUZ.

8.2 Israel

In June 2008, towards the end of the school year, we started the second wave of the main survey sample of the project. The telephone interviews were realized in the telephone laboratory of the B. I. and Lucille Cohen Institute for Public Opinion Research in Tel Aviv University.

8.2.1 Population

The target population for the second wave consists of students that participated in the first wave, and now completing grades tenth twelfth [ninth and eleventh graders in the first wave]. We did not interview fifth graders [forth graders in the first wave] because there is no transition in the Israeli Educational system in these grads. We decided to focus on students and not interview their mothers because the information we need for the second wave is mainly the information about the transition and its outcomes. This kind of information we need to collect from the students themselves.

Table 8.13 shows that there is not much variation in the number of cases between ethnic groups as well as between grades. Thus, there was no need for supplementary data collection.

Table 8.13: Target Subjects Wave 2

	Grade 9	**Grade 11**	**Total**
Native	323	298	621
Immigrant	313	291	604
Total	636	589	1225

8.2.2 Pretest of Questionnaires and Programming

In Israel, the pretest was conducted mainly to check the questionnaire for the last transition. We needed achievements information on final matriculation scores of various fields and various types of the exam, and we were checking the best way of doing that using CATI. This required testing the complex composition of different fields of study and filtering. For this purpose, we interviewed 10 students of the 12 grade for the first pretest. They were randomly chosen from the sample list. During the pretest we understood that we need to elaborate the questionnaire and to give more different possibilities for the different types of the matriculation exams. After improvement of the questionnaire we conducted a second pretest. We interviewed 15 students of the 12 grade, chosen randomly from the sample list. After evaluating the second pretest, we decided to use the elaborated questionnaire of the second pretest.

8.2.3 Interviewer and Interviewer Instruction

1. Recruitment and Interviewer Characteristics

In Israel, we used senior CATI interviewers of B. I. Cohen Institute (the field agency). As mentioned before, we interviewed only students in the second wave. Thus, all interviews were conducted in Hebrew (as was in the first wave).

2. Interviewer Instruction

In Israel the interviewer instruction took 1.5-2 hours long. The instruction consisted of (theoretical) part of the interviewer instruction were we introduced the project to the interviewers: research question, target subjects, different waves and questionnaires etc. The instruction also consisted a general briefing of techniques to a proper conduction of telephone interviews and discussion of organizational issues. All interviewers received printed questionnaires that they could acquaint themselves with the contents of the questionnaires before the practical part of the instruction. We did not carry out the practical part of the interviewer instruction. All interviewers were senior CATI interviewers, and received their practical instruction when started their work at the institute. They were all familiar with the CATI-Software.

8.2.4 Data Collection

The main data collection took place in the telephone laboratory of the B. I. Cohen Institute for Public Opinion Research, Tel Aviv University. We started the data collection on June 8th 2008 and worked for 19 days interviewing the ninth graders (tenth graders in the second wave) and 25 days interviewing the eleventh graders (twelfth graders in the second wave). At the first two weeks interviews were conducted daily (except Fridays and Saturdays) from 16:30 to 22:00 in 30 workstations. In the following weeks, we allocated 5 to 7 of the best interviewers for this survey on days that the telephone laboratory conducted other CATI surveys.

8.2.5 Response Rates

Response rates of second wave

In the second wave in Israel, we find a total response rate of 83.9% for students of the second transition (Table 9.14). However, the response rate differs for the ethnic groups. Immigrant students have lower response rate (79.4%) comparing to natives (88.2%). The main reason for this difference is the non-response rate considering respondents who were not available due to disconnected lines or no answer during fieldwork (18.6% for immigrants compared with only 10.6% for natives). Immigrants are known to be more characterized by internal migration. It is more difficult to trace phone numbers for those to tend to change place of residence. Only 1.6% of respondents refused actively to take part on the survey.

Table 9.14: Response Rate: Second Transition

	Natives (%)	Immigrants (%)	Total (%)
Gross sample	322	308	630
Not qualified due to health conditions	0	1 (0.3)	1 (0.15)
Not in country	0	1 (0.3)	1 (0.15)
Eligible sample	322	306	628
Interview complete	284 (88.2)	243 (79.4)	527 (83.9)
Not available	34 (10.6)	57 (18.6)	91 (14.5)
Refusal	4 (1.2)	6 (2.0)	10 (1.6)
Language barriers	0	0	0

Table 9.15: Response Rate: Third Transition

	Natives (%)	Immigrants (%)	Total (%)
Gross sample	306	287	593
Not qualified due to health conditions	1 (0.3)	1 (0.4)	2 (0.3)
In the army	6 (2.0)	4 (1.4)	10 (1.7)
Eligible sample	299	282	581
Interview complete	262 (87.6)	225 (79.8)	487 (83.8)
Not available	32 (10.7)	51 (18.1)	83 (14.3)
Refusal	5 (1.7)	6 (2.1)	11 (1.9)
Language barriers	0	0	0

Table 9.15 shows similar response rates for the third transition, a total response rate of 83.8%. Again, the response rate differs for the ethnic groups. Immigrant students have lower response rate (79.8%) comparing to natives (87.6%). For the third transition al well, the main reason for this difference is the non-response rate considering respondents who were not available due to disconnected lines or no answer during fieldwork (18.1% for immigrants compared with only 10.7% for natives). Only 1.9% of respondents refused actively to take part on the survey.

9 Fieldwork Third Wave (Main Survey) and Second Wave (Supplement)

In November and December 2009 the third wave of the main survey sample and the second wave for the supplement sample of the project "Immigrants' Children in the German and Israeli Educational System" was conducted. The telephone interviews were realized in the telephone laboratory of the Mannheim Centre for European Social Research (MZES) of Mannheim University. The data collection was conducted by Tobias Roth and Zerrin Salikutluk (administration of telephone interviews), supported by Simon Henke (questionnaire programming), Maria Fix, Saskia Mitreuter and Carmen Waiblinger (monitoring of telephone interviews) and supervised by Prof. Dr. Irena Kogan and Prof. Dr. Frank Kalter (project administration).

9.1 Respondents

In tables 9.1 and 9.2 display number of cases for waves, grades and ethnic groups separately. For the second wave we called families of the first wave from whom we received panel permission and a telephone number. Similarly, for the third wave, we called those youths who took part in the second wave.

Table 9.1: Number of cases wave 2

Ethnic	**Grade**			**Total**
Background	**4**	**9**	**10**	
German	54	92	45	191
Turkish	28	161	120	309
Russian	73	148	135	356
Total	**155**	**401**	**300**	**856**

Table 9.2: Number of cases wave 3

Ethnic	**Grade**		**Total**
Background	**9**	**10**	
German	144	208	352
Turkish	183	166	248
Russian	106	142	248
Total	433	516	**949**

9.2 Interviewer and Interviewer Instruction

1. Recruitment

Interviewers' recruitment was done in different ways:

- Announcements at the University of Mannheim (in libraries and faculties)
- Announcements at the Students Council for Slavic Studies at the University of Heidelberg

- E-mails to persons that had worked as interviewers at the MZES before and especially those who worked for our project the last year

Most of the German interviewers could be enlisted via email and therefore have already experiences in interviewing. The majority of the Russian interviewers were the same as in the year before, so they had useful experiences with our project. Due to administration restrictions, we had problems in finding Turkish interviewer.

2. Interviewer Characteristics

For the selection of interviewers we needed some bilingual interviewers with very good German proficiency because they could – if required – also do the interviews in German. However, we did not need as many bilingual interviewers as in the last year because adolescents were only interviewed in German.

3. Interviewer Instruction

The interviewer instruction was about 3 hours long and took place one week before the main data collection phase. The instruction consisted of two parts. In the first part of the instruction we introduced the project to the interviewers (research questions, target subjects, different waves and questionnaires etc.), gave general advice to a proper conduction of telephone interviews and discussed organizational issues. Besides, we handed out a handbook to the interviewers as well as printed questionnaires for them to acquaint themselves with the contents of the questionnaires before the practical part of the instruction. We mainly focused on the second wave questionnaire since we only conducted second wave interviews in the first week. In the second (practical) part of the interviewer instruction, interviewers already had the opportunity to get familiar with the programmed versions of the questionnaires and the CATI-Software at one of the workstations by clicking through the questions. Afterwards they had the time to go through the questionnaires at a stretch again. At the end of the instruction, interviewers conducted test interviews by calling and interviewing each other by simulating real interview situations. This way the interviewers could practice the situation under realistic conditions and in case of difficulties we could discuss individual weaknesses and make some suggestions for improvement. In the second week, we introduced our interviewers to the questionnaire of the third wave with the same procedure.

Table 9.3: Interviewer Characteristics

	N	Percent
German	9	21.43 %
Turkish	11	26.19 %
Russian	22	52.38 %
Female	36	85.72 %
Interview experience	14	33.33 %
Mean age	26.57 years	

9.3 Data Collection

The main data collection took place in the telephone laboratory of the MZES at the University of Mannheim between November 2nd and December 12th 2009. To prevent language barriers, mothers could choose if they wanted to be interviewed in German or Russian, respectively Turkish (adolescents were interviewed only in German). For this purpose the questionnaires for the mothers were available as well in German as in Turkish and Russian. The interviews were conducted daily (except Sundays) from Mondays to Fridays in two shifts from 5 p.m. to 9 p.m. (shift 1: 5 p.m. - 7 p.m.; shift 2: 7 p.m. - 9 p.m.) and on Saturdays in three shifts (shift 1: 11 a.m. - 2 p.m.; shift 2: 2.30 p.m. - 5.30 p.m.; shift 3: 6 p.m. - 9 p.m.). Because the majority of our cases were adolescents who attend school or were in apprenticeship, it was more efficient to interview in the evening. Nevertheless, we called in the mornings and afternoons on Saturdays to make sure that contacting was attempted at every time of the day. The main part of the second wave cases was interviewed within the first week, so we started with the third wave in the second week. Since we had completed the majority of interviews after the fourth week, we continued with the six best interviewers (2 German, 1 Turkish and 3 Russian native speakers).

Duration of Interviews

Table 9.4 shows the average duration of an interview for each questionnaire. The duration is displayed separately for each ethnic group. In all three versions of the questionnaires the interviews with German respondents took the shortest time. However this fact is not surprising since Germans were asked fewer questions than migrants. For the additional questions in the third wave about 8 minutes more on average were needed compared to the second wave.

Table 9.4: Average Duration of Interview by Nationality and Wave

	Average Duration in Minutes
Wave 2 Grade 4 (Mothers)	
Germans	11.66
Ethnic Germans	15.43
Turks	15.45
Total	**13.96**
Wave 2 Grade 9 and 10 (Adolescents)	
Germans	12.66
Resettlers	15.40
Turks	13.63
Total	**14.19**
Wave 3 Grade 9 and 10 (Adolescents)	
Germans	19.19
Resettlers	25.75
Turks	23.94
Total	**22.51**

9.4 Response Rates

Response Rates of second wave

Overall the response rate for mothers of 4th graders is about 82% (Table 9.5), whereby the response rate is highest for German mothers (91%) and lowest for Turkish mothers (64%). The main reason for non-response was non-availability of mothers during the survey weeks (wrong phone number, no contact, vacation, employment). In two cases the interview could not be conducted due to language problems. These cases were Kurdish families where the mothers could neither speak German nor Turkish.

The response rate of adolescents in the second wave is about 84%, whereas we find some variance in the response rate by ethnic groups (Table 9.6). The highest response rates can be found in the group of adolescents from the former Soviet Union (87%), whereas the response rate for German and Turkish youths are more or less equal (82% respectively 81%). More problematic than active refusals are those cases that were not available during the survey time (about 11%). Especially Turkish adolescents were hard to contact. German youths have the highest refuse rate with 8%. The overall response rate is slightly higher for those who attended grade 10 in the first wave than those of grade 9 (85% versus 84%).

Table 9.5: Response Rate W2U1

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**54 (100)**	**28 (100)**	**73 (100)**	**155 (100)**
Interview Completed	49 (90,7)	18 (64,3)	60 (82,2)	127 (81,9)
Not available	2 (3,7)	5 (17,9)	12 (16,4)	19 (12,3)
Refusal	3 (5,6)	3 (10,7)	1 (1,4)	7 (4,5)
Language Problems	0	2 (7,1)	0	2 (1,3)

Table 9.6: Response rates W2U23

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**137 (100)**	**281 (100)**	**283 (100)**	**701 (100)**
Interview Completed	112 (81,8)	228 (81,1)	247 (87,3)	587 (83,7)
Not available	14 (10,2)	40 (14,2)	23 (8,1)	77 (11)
Refusal	11 (8)	13 (4,7)	13 (4,6)	37 (5,3)
Language Problems	0	2 (7,1)	0	2 (1,3)

Table 9.7: Response Rate W3U23

	G *(%)*	*T* *(%)*	*R* *(%)*	**Total (%)**
Cases Total	**352 (100)**	**349 (100)**	**248 (100)**	**949 (100)**
Interview Completed	321 (91,2)	267 (76,5)	213 (85,9)	801 (84,4)
Not available	27 (7,7)	62 (17,8)	26 (10,5)	115 (12,1)
Refusal	4 (1,1)	20 (5,7)	9 (3,6)	33 (3,5)
Language Problems	352 (100)	349 (100)	248 (100)	949 (100)

Table 9.8: Percental Refusal Rates of Adolescents by Ethnic Background of Interviewer

	Respondents		
Interviewer	**G**	**T**	**R**
G	15 / 453 (3,11)	18 / 342 (5,26)	5 / 22 (22,73)
T	0 / 0	1 / 8 (12,5)	0 / 0
R	0 / 0	14 / 145 (9,66)	17 / 438 (3,88)

Response Rates of Third Wave

The response rate for adolescents who were interviewed a third time is similarly high as the response rate for second wave interviews. But the distribution patterns among the ethnic groups differ: While 91% of German adolescents agreed to take part on the third wave, only 77% of Turkish youths could be interviewed. The response rate for adolescents from the former Soviet Union is about 86%. The most crucial reason for these differences is again the lacking availability of adolescents, which is particularly problematic for Turkish youths (18%). The response rate is again higher for adolescents who attended grade 10 in wave one than the response rate of 9th graders.

As the interviews of the adolescents were conducted in German, we did not have to pay attention to the ethnic background of the interviewers. That means that all interviewers could call respondents of each nationality independent of their mother tongue. Table 9.8 shows refusal rates of adolescents by ethnic origin of respondent and interviewer. The first number are refusals, the second are completed interviews. The percentage of refusals is calculated by dividing refusals by sum of refusals and completed interviews. Even if there are empty columns, this table gives at least a hint that the ethnicity of the interviewer has even an effect for interviews with adolescents. Russian adolescents have a higher refusal rate when a German interviewer calls them. The only ethnic group of respondents, which was called by all three nationalities are Turkish adolescents. In this group German interviewer have the lowest refusal rate. It must be noted, however, that we had only one Turkish interviewer who focused more on interviewing Turkish mothers to give them the opportunity to conduct the interview in Turkish.

Interview Partner

The interviews with families of students who attended 4th grade at the time of the first wave should always be conducted with the mothers. Only in exceptional cases it was allowed to conduct the interview with fathers or other persons. For example, if the mother does not live in the same household as the child, passed away or is not available during field phase because of hospital stay, vacation or employment. If we interviewed a father in wave 1, we also required interviewing the father again in wave 2. The following table (Table 9.9) shows that 3.2% of the interviews in our current wave were not conducted with the mother.

Table 9.9: Interviewed Parent

	Mother	Father	Other Person
W2U1	123 (96,9)	3 (2,3)	1 (0,8)

9.5 Specific Methods

Within the data collection of the supplement through school surveys, some siblings were included in the sample. For the telephone interview with the mothers of these cases we combined two methods to keep their effort low. Only a small part of the questionnaire directly concerns the

target child, so it is not necessary to do the complete interview two times. The relevant questions for the second child were printed out as a separate questionnaire. The mothers' answers were then entered via paper-pencil-method.

10 Fieldwork Third Wave (Supplement)

In November 2010 the third wave of the supplement survey was conducted. The telephone interviews were realized together with parental interviews of the first wave of the "Children of Immigrants Longitudinal Survey in Four European Countries" in the telephone laboratory of the Mannheim Centre for European Social Research (MZES) of Mannheim University. The data collection was conducted by Tobias Roth, Zerrin Salikutluk and Konstanze Jacob (administration of telephone interviews), supported by Simon Henke (questionnaire programming), Johannes Bolz, Marion Fischer-Neumann and Paul Löwe (monitoring of telephone interviews) and supervised by Prof. Dr. Irena Kogan and Prof. Dr. Frank Kalter (project administration).

10.1 Respondents

We called adolescents of the supplement sample who already took part in the second wave of data collection. Table 10.1 displays number of cases for the telephone sample.

Table 10.1: Number of cases wave 3 supplement

Ethnic	**Grade**		**Total**
Background	**9**	**10**	
German	87	38	125
Turkish	153	114	267
Russian	140	130	270
Total	**380**	**282**	**662**

10.2 Interviewer and Interviewer Instruction

1. Recruitment

Interviewers' recruitment was done in different ways:

- Announcements at the University of Mannheim (in libraries and faculties)
- Announcements at several Students Council at the University of Heidelberg
- E-mails to persons that had worked as interviewers at the MZES before and especially those who worked for our project the last year

2. Interviewer Characteristics

Since we only interviewed adolescents in this wave, there was no need for bilingual interviewer. However, at the same time we interviewed immigrant mothers for the project "Children of Immigrants Longitudinal Survey in Four European Countries", therefore, we employed bilingual interviewers who nevertheless conducted interviews in German only.

Table 10.2: Interviewer Languages

	N	Percent
German	11	34,4%
Italian	1	3,1%
Polish	3	9,4%
Russian	8	25,0%
Serbian	2	6,3%
Spanish	2	6,3%
Turkish	5	15,6%

3. Interviewer Instruction

The interviewer instruction was about 3 hours long and took place one week before the main data collection phase. The instruction consisted of two parts. In the first part of the instruction we introduced the project to the interviewers (research questions, target subjects, different waves and questionnaires etc.), gave general advice to a proper conduction of telephone interviews and discussed organizational issues. Besides, we handed out a handbook to the interviewers as well as printed questionnaires for them to acquaint themselves with the contents of the wave 3 questionnaires before the practical part of the instruction. In the second (practical) part of the interviewer instruction, interviewers already had the opportunity to get familiar with the programmed versions of the questionnaires and the CATI-Software at one of the workstations by clicking through the questions. Afterwards they had the time to go through the questionnaires at a stretch again. At the end of the instruction, interviewers conducted test interviews by calling and interviewing each other by simulating real interview situations. This way the interviewers could practice the situation under realistic conditions and in case of difficulties we could discuss individual weaknesses and make some suggestions for improvement.

10.3 Data Collection

The main data collection took place in the telephone laboratory of the MZES at the University of Mannheim between November 8nd and December 5th 2009. The interviews were conducted daily (except Sundays) from Mondays to Saturdays in two shifts from 5 p.m. to 9 p.m. (shift 1: 5 p.m. - 7 p.m.; shift 2: 7 p.m. - 9 p.m.) and on Saturdays in three shifts (shift 1: 10 a.m. - 1 p.m.; shift 2: 2 p.m. - 5 p.m.; shift 3: 5:30 p.m. – 8:30 p.m.). Because the majority of our cases were adolescents who attend school or were in apprenticeship, it was more efficient to interview in the evening. Nevertheless, we called in the mornings and afternoons on Saturdays to make sure that contacting was attempted at every time of the day. The main part of the interviews were done within three weeks. We continued trying to interview hard-to-reach adolescents during the next weeks where we already started interviews for the other project.

10.4 Response Rates

The response rate of adolescents in the third wave is about 75%, whereas we find some variance in the response rate by ethnic groups (Table 10.3). The highest response rates can be found in the group of adolescents from the former Soviet Union (77%), which is similar in the German group (76%), whereas the response rate for Turkish youths is lower (73%). However, this is not mainly due to active refusals, which are in general quite rare (4.2% on average) and even lower for Turkish respondents. Especially for the Turkish subgroup the main problem was that they were never reached during the fieldwork period (24% for Turks, 18 and 19% for Russian and German respondents).

Table 10.3: Response rates W3U23

	G *(%)*	*R* *(%)*	*T* *(%)*	**Total (%)**
Cases Total	**125 (100)**	**270 (100)**	**267 (100)**	**662 (100)**
Interview Completed	95 (76,0)	208 (77,0)	194 (72,7)	497 (75.1)
Not available	24 (19,2)	49 (18,2)	64 (24.0)	136 (20.7)
Refusal	6 (4.8)	13 (4,8)	9 (3.4)	28 (4.2)

11 Data

11.1 Data Entry

All data of the household survey were entered manually, coordinated by the SUZ research institute. However, during the data preparation and data cleansing process the research team in Leipzig detected several inconsistencies and mistakes in the data. A repeated entry of a 10 percent sample revealed that this applies especially to achievement tests, but also to other crucial variables (e.g. mother's language proficiency, identification, questions about siblings). As a consequence, these variables were entered again. A quality check of all deviations between the original and the re-entered variables reveals that the data quality improved to a great extent. The coordination of the data entry for the supplement school surveys was coordinated completely at Leipzig University.

11.2 Data structure

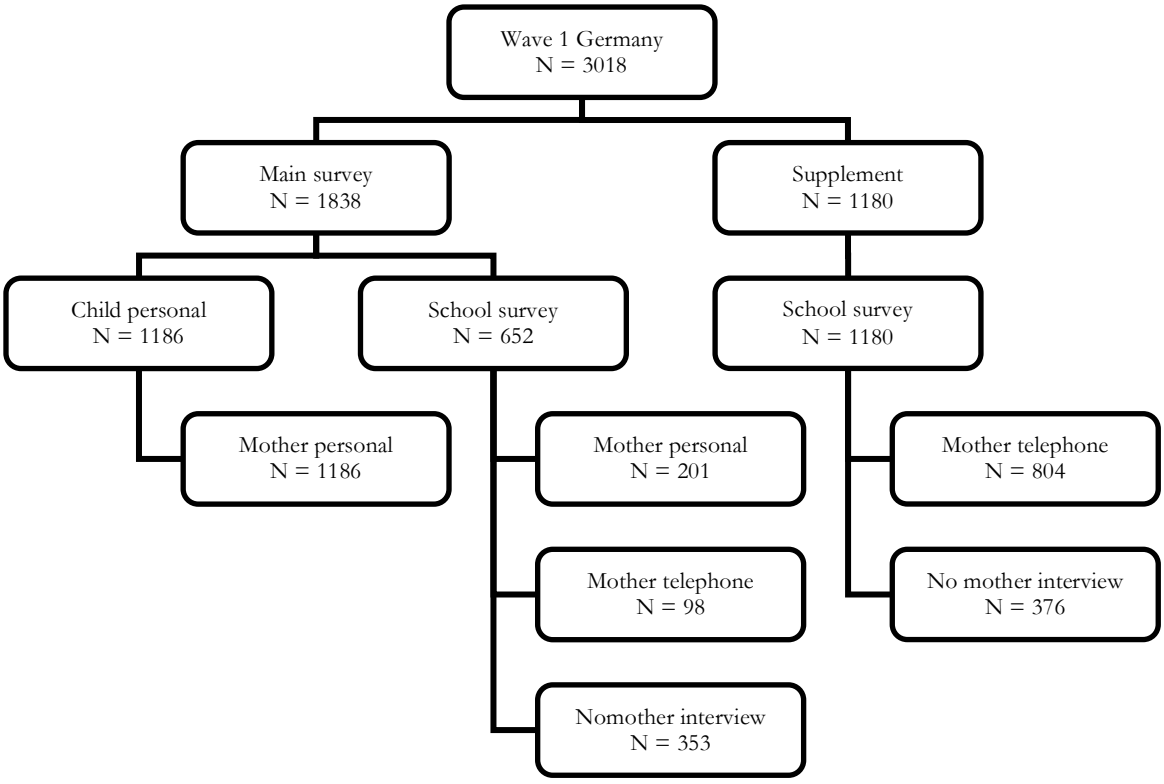
The data are stored in five different data sets:

1. Data set wave 1, transition 1-3 and mother interviews, Germany and Israel (different variables for countries are integrated into one variable)
2. Data set wave 2, mother interviews (only transition 1 in Germany)
3. Data set wave 2, transition 2 and 3, Germany
4. Data set wave 2, transition 2 and 3, Israel
5. Data set wave 3, transition 2 and 3, Germany

The unique identifier for households is the variable "hhid". It can be used to merge several data files. "hhid" contains 10 digits and starts with a 1 for cases interviewed in Israel and 2 for cases in Germany. The country of survey is also stored in the variable "country".

Information about the transition and ethnic group can be found in the variables "class" and "group". The latter variable contains information about whether the screening criteria with respect to ethnic origin are fulfilled: Two categories exist that show that especially in school surveys 154 respondents in the data set did not meet all of our target criteria. The same is true for 19 adolescents attending grade 9 and 10 that are Jewish Quota Refugees. They can be easily excluded from the analyses using information of this variable. Further information on these cases can be found in the variables "entry" and "other origin".

Figure 11.1: Overview on different sampling and modes in German sample



Special attention when using the German subsample should be paid due to different sampling methods as well as modes of interview. To facilitate this issue for the data user, a variable indicating the subsample is included in the data set with the following categories (see also figure 11.1):[3]

1. Main survey: Child personal/mother personal
2. Main survey: School survey/mother personal
3. Main survey: School survey/mother telephone
4. Main survey: School survey/no mother interview
5. Supplement: School survey/mother telephone
6. Supplement: School survey/no mother interview

Further variable indicating the belonging to a certain subsample that can be used to control for modes and/or sample are: mu_int, sample, w1_supp.

Variables in the wave 1 data set are ordered in the following way:

1. Basic variables: Household id, sample and group variables, school characteristics, local information
2. Achievement tests: Version, right-wrong answers, sum scores
3. Child variables (4th graders) in questionnaire order, screening variables (countries of birth, date of birth, gender), interviewer variables

[3] Here, "main survey" and "supplement" refer to the school year the survey was conducted (see section 7).

4. Youth variables (9th to 11th graders) in questionnaire order, screening variables (countries of birth, date of birth, gender), interviewer variables
5. Mother variables in questionnaire order, interviewer variables

All variables in wave 2 and wave 3 data sets are ordered as they appear in the fieldwork questionnaires. These data sets contain all cases that participated in wave 1. The variables "wave2" respectively "wave3" indicate whether a particular wave 1 respondent also participated in later waves. Due to parsimony reasons, basic variables (ethnic group, grade, sample etc.) are not included in the data sets for wave 2 and wave 3.

11.3 Data Cleansing

Due to different sampling methods and teams, data sets differ in their labeling and scope. Thus, matching data from different sources was the first step in the data preparation process. Hereby, we took special care of data matching issues (ID checks, variable label and value adaption).

Data sources

- CATI screening
- Household survey
- Second data entry of 10 percent of household survey
- Second data entry of 40 percent of variables
- Second school survey (supplement)
- CATI with mother
- Occupational coding
- School context variables
- Neighborhood variables

ID-Checks

Household identification number (variable "hhid") identifying both mother and student was accurately checked in order to allow for merging the different subsamples. We checked for doubles and pairs by using the original questionnaires and correct all data entry errors. In case of errors, "hhid" was modified to match the ID of the questionnaires.

Cleansing of group and class variable

In order to guarantee the correctness of the group variable that initially only differentiates groups by language version of the questionnaire we made consistency checks with country of birth of the student and both parents (screening interview data) and the status of entry in Germany of both parents. In case of inconsistencies, cases were examined in more detail by checking the original questionnaire, further screening variables and other questions indicating group belonging (citizenship, language use with parents). We added further group categories (5 = 'other origin'

and 6 = 'former SU origin, but other status of entry') and two more variables that provide further information on these categories: "other_origin" and "entry".

The variable "group" contains the following categories:

1 = Native
2 = Turkish
3 = Aussiedler
4 = FSU Jews
5 = Other origin
6 = SU, other status of entry

The variable "other_origin" contains the following categories:

1 = Binational: Germany - Turkey
2 = Binational: Germany - SU
3 = Binational: Germany – Other country
4 = Binational: Turkey - Other country
5 = Binational: SU - Other country
6 = Other country

The variable "entry" contains the following categories:

1 = Mixed: Quota Refugee and Aussiedler
2 = SU country, but no Aussiedler

We checked the cohort variable (variable "class") by comparing initial data with screening information and birth date as well as information specific to the respective transition. In the case that respondents filled out the "wrong" questionnaire, we set filter missings (-4) for grade specific questions.

The variable "class" contains the following categories:

1 = Grade 4
2 = Grade 9
3 = Grade 10
4 = Grade 11

Checks of variables and missing definition

Data cleansing contained the investigation of every single variable in the data set and adaptations if necessary. We had a close look at variables with unusually high shares of cases with missing values and checked these variables by looking at the original questionnaires. Furthermore, we did plausibility checks in case of extreme values and consistency checks by comparing answers to different but associated questions (e.g., mothers' age of birth). When detecting inconsistencies, we first checked for input errors by going back to the original questionnaires and replaced it by

correct value. If we were not able to solve inconsistencies, the respective variables were set to "-6" (plausibility missing).

Missings were defined for each variable in the following way:

- Mother interview not conducted: -1 (dropout wave 1)
- Non-response in wave 2: -2 (dropout wave 2)
- Non-response in wave 3: -3 (dropout wave 3)
- Question not asked: -4 (filter missing) due to subsample, transition and ethnic group. Filter missings were also defined for questions, which were not asked due to questionnaire construction (e.g., mothers without children except the target child do not answer questions about these children).
- Mother did not completed the interview: -5 (aborted interview)
- Unsolved issues of plausibility/consistency checks: -6 (plausibility missing)
- "No answer" categories: 99 ("not reported", "don't know" and "refusal").

String variables

String variables were integrated into categorical variables if possible. Otherwise a new category was created. Open answers were harmonized and translated into English.

Data Labeling

All variables and values were labeled in English and in the case of comparable questions and answering categories data labels and values were harmonized.

11.4 External Data

We included local and school information to control for context factors on educational achievement. Social background information is coded in several prestige scales for a standardized comparison.

11.4.1 Occupational coding

Gesis-Zuma carried out the coding of mothers and fathers occupation and generated prestige and status values. They used information on the highest educational and occupational degree in Germany as well as in Turkey or in the country of the Former Soviet Union, current and last occupation, on income and also on staff numbers and/or subordinates and self-employment.

Open responses were coded using the International Standard Classification of Occupation 1988. Then, prestige and status variables were generated according to Treiman, Wegener (MPS) and Ganzeboom et al.

The indices are based on the following variables (see table 11.1):

Table 11.1: Variables used for occupational status coding

Construct	Interview	Variable (mother)*	Variable (father)
Highest Level of education in Germany	Mother interview Youth interview	m1_59, m1_59o j1_62a, j1_62ao	m1_77, m1_77o j1_58a, j1_58ao
Highest Level of education in Turkey	Mother interview Youth interview	m1_59t, m1_59to j1_62bt, j1_62bto	m1_77t, m1_77to j1_58bt, j1_58bto
Highest Level of education in the Former Soviet Union	Mother interview Youth interview	m1_59r, m1_59ro j1_62br, j1_62bto	m1_77r, m1_77ro j1_58br, j1_58bro
Vocational degree in Germany	Mother interview	m1_63, m1_63o1,	m1_81, m1_81o1,
Employment Status	Mother interview Youth interview	m1_64 j1_63	m1_82 j1_59
Title of current position	Mother interview Youth interview	m1_65 j1_64	m1_83 j1_60
Occupational status	Mother interview	m1_66, m1_66a, m1_66b, m1_66c, m1_66d	m1_84, m1_84a, m1_84b, m1_84c, m1_84d
Hours of working	Mother interview	m1_67	m1_85
Supervision	Mother interview	m1_68, m1_69	m1_86, m1_87
Title of last position	Mother interview	m1_71	m1_89

*if the interview was conducted with the mother (m1_int1 == 1)

The final variables refer either to the current or the last job of the mother or the father, depending on the current employment status of the mother and the father (see: m1_64 and m1_82). Thus, there is either information available for the current or the last job. The other variable has the value -4, respectively. Usually, the value of the socioeconomic indices is based on information of the mother interview. In the school survey, we also asked students for mothers' and fathers' occupation to avoid missing data on social background in case that mother refused to be interviewer. Thus, we have two sources of information on parents' occupation in some cases. Assuming that the information given by the mother is more reliable, we use this information for occupational coding, with the exception that students' information was more accurate than mothers'.

For the description of the family's socioeconomic background, the following indices can be found in the data set:

- ISCO-88 (International Standard Classification of Occupation 1988): An international classification scheme of occupational positions. It allows for the international comparison of labor market positions and enables the creation of other scales, which are frequently used in the social sciences.
- ISEI (International Socio-Economic Index of Occupational Status): An index that is derived from three indicators of status and living conditions: Income, education and occupation.

- MPS (Magnitude Prestige Scale)
- SIOPS (Standard International Occupational Prestige Scale): An index that integrates several national prestige scales into one.

Students of the older cohort were asked about their occupational aspiration in the first wave and bout vocational plans and current apprenticeship in the second and third wave. Occupational codes for these questions are also available in the data.

11.4.2 School Context

Purpose

For three reasons, it is useful to consider context variables on school level. First, due to the project design of clustered sampling in the school survey, observations within schools or classes are not independent from each other. This is a severe violation of assumptions of regression analyses. For multivariate data analysis school information is required in order to control for these clustering effects.
Second, including school level variables in regression models allows controlling for contextual effects on school level. With respect to ethnic educational inequalities, school level variables might influence both dependent (school performance) and important independent variables (e.g., language proficiency). Thus, controlling for omitted variable biases by taking into account school characteristics is of crucial importance. Third, how school environments affect learning processes is a research topic of central interest. For instance, scholars are interested in the effects of ethnic composition of schools on educational achievement.

Sources of Information

On the basis of information about names of attended schools and city, we are able to identify schools attended by respondents at the time of the first wave. Using this information, we matched information derived from school statistics to respondents in the data set. These school statistics stem from different sources since educational administration is in the responsibility of the federal states. For the federal state of North Rhine-Westphalia, information was provided by the "Landesamt für Datenverarbeitung und Statistik NRW"[4]for the school years 2006/2007 and for some cities also for 2007/08. For Hamburg, the "Schulstatistische Information"[5] (SuSi) of the federal state of Hamburg provided the statistical information. Since appropriate data was not available for the federal state of Hesse, information on schools had to be directly requested from schools.

[4] http://www.it.nrw.de/statistik/index.html (Accessed 09.11.2009).
[5] http://schulehamburg.de/schulen_fhh/susi/fm_start.php (Accessed 09.11.2009).

Creation of variables

The data management was conducted with both Stata and Excel. In a first step, the school names were harmonized and typos were corrected. These typos occurred in particular in the school survey sample, where the students wrote down names of school they attended. All school context information refers to school statistics during the school years 2006/07 (main survey) or 2007/08 (supplement). Two different school years were used in order to account for the fact that data collection took place in two school years (the variable "sch_year" contains information on the school year the survey was conducted).

The school context variables contain both relative and absolute frequencies ethnic composition of the school (see Table 11.2 for detailed information of school context variables).

Table 11.2: School context variables

Variable name	Variable label	Value label	Description
schoolid	School ID	Numeric	Identifies uniquely, which school is attended. The first two digits refer to the place of residence and the last two digits refer consecutively to the schools located in the area.
type_sch	Type of school	1 "Elementary School" 2 "General secondary school (Hauptschule)" 3 "General-Intermediate secondary school (Haupt-Realschule)" 4 "Intermediate secondary school (Realschule)" 5 "Comprehensive school" (Gesamtschule)" 6 "Other: " (Further information is given in type_sch_o)	
sch_year	School year	Numeric	
comp_sch	Type of comprehensive school	1 "Integrated" 2 "Cooperative"	
num_pup	Number of pupils	Numeric	Number of pupils at grade level
num_mig	Number of migrants	Numeric	Number of pupils with a non-German citizenship and Aussiedler at grade level
perc_mig	Percentage of migrants	Numeric	Percentage of pupils with a non-German citizenship *and* Aussiedler at grade level
num_r	Number of Aussiedler	Numeric	Number of Aussiedler at grade level
perc_r	Percentage of Aussiedler	Numeric	Percentage of Aussiedler at grade level
num_t	Number of Turks	Numeric	Number of pupils with Turkish citizenship at grade level
perc_t	Percentage of Turks	Numeric	Percentage of pupils with Turkish citizenship at grade level

Missing information

For various reasons, missing values persist for contextual variables on school level. First, some schools in the dataset are not listed in the official statistical source provided by the federal states of North Rhine-Westphalia and Hamburg. Second, missing values on contextual variables for some schools located in Hesse. As previously stated, this information had to be directly requested from schools, but some schools were not able or willing to provide information. Additionally, weighting up costs and benefits, we decided to approach only schools with more than 5 students participating in our survey. Third, whereas the information on Ethnic Germans was available for every school in North Rhine-Westphalia and Hamburg, some schools in Hesse do not list Ethnic Germans separately. This leads to a high share of missing values for variables on Ethnic Germans for students who are attending schools in Hesse. Forth, 10 percent of the school names turned out to be invalid; therefore, it was not possible to match context variables to these respondents. These problems result in missing school context information for about ten percent of the students (for detailed information see Table 11.3).

Table 11.3: Missing information on school context variables

	North-Rhine Westphalia	Hesse	Hamburg	Total
Total	1997	370	649	3016
Excluded (N≤5)	0	79 (21.4%)	0	79 (2.6%)
Missing school name	85 (4.2%)	6 (1.6%)	10 (1.5%)	101 (3.3%)
School statistic not available	61 (3.1%)	122 (33.0%)	3 (0.5%)	186 (11.5%)
School context information available	1851 (92.7%)	163 (44.0%)	636 (98.0%)	2650 (87.9%)

11.4.3 Community context variables

Purpose

Context variables on the community level are useful for two reasons. As school context variables, omitting these variables can result in omitted variable bias; and effects of neighbourhood context also constitute an own field of research, for instance the impact of social capital provided by ethnic communities on school performance.

Sources of Information

Necessary information for the creation of community context variables was purchased from Infas GEOdaten.[6] Three community levels are available, differing in population size: commune level ("Gemeinde", KGS8), statistical districts ("Statistische Bezirke", KGS16) and residential quarters ("Wohnquartiere", KGS22).

[6] http://www.infas-geodaten.de/ (Accessed 16.11.2009).

Creation of variables

First of all, community information was matched to the original data set by using postal addresses given deliberately by respondents. Each respondent with a valid address was matched to a specific community code. Subsequently, community context variables for the three community levels were generated. This community information refer to the year 2008.
For each community level, two types of context information are available.[7] First, demographical information like age distribution or the proportion of foreign residents living in the community is available (separately for Turks, Greek, and broader categories such as "Russia, White Russia, and Ukraine" or "Western Europe, North America, and Australia"). Second, sociodemographic information is available, e.g. unemployment rate or average purchasing power. For further information on community context variables, see codebook.

Missing information

468 respondents with missing exist in the data set due to missing postal addresses (15.5 per cent). The majority of missing values on community variables stems from school surveys. Thus, selective missing value patterns are likely.

[7] For further information on the provided information by Infas GEOdaten, see the "Geodaten Datenkatalog": http://www.infas-geodaten.de/fileadmin/media/pdf/katalog/geodaten_katalog.pdf (Accessed 16.11.2009).