

# Inequality in Various Stages of the Educational Career: Patterns and Mechanisms - Literature Review

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**Document Identifier**

D1.1 Report on literature review WP1

**Version**

1.0

**Date Due**

M2

**Submission date**

28<sup>th</sup> February

**WorkPackage**

WP1 Inequality in various stages of the educational career

**Lead Beneficiary**

UvA

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## **CONTENT**

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>SOCIAL AND ETHNIC INEQUALITY IN EDUCATIONAL OPPORTUNITY .....</b>	<b>6</b>
<b>SOCIAL AND ETHNIC SKILL GAPS .....</b>	<b>7</b>
<b>EARLY CHILDHOOD EDUCATION AND CARE .....</b>	<b>8</b>
<b>THE ROLE OF SCHOOL AND EDUCATION SYSTEMS .....</b>	<b>8</b>
<b>CONCLUSION.....</b>	<b>10</b>
<b>THE DESIGN OF ISOTIS.....</b>	<b>10</b>
<b>APPENDIX – ITEM INPUT FOR ISOTIS CORE STUDY.....</b>	<b>12</b>
<b>PARENTS QUESTIONNAIRE.....</b>	<b>12</b>
<b>QUESTIONS THAT MIGHT BE ASKED TO THE CHILDREN.....</b>	<b>14</b>
<b>REFERENCES .....</b>	<b>16</b>

## EXECUTIVE SUMMARY

In modern societies education is a key resource for economic and societal progress and a pivotal factor structuring socio-economic outcomes and life chances of individuals. Organization and outcomes of labor markets are increasingly stratified on the basis of education (Goldin & Katz, 2009; van de Werfhorst, 2007). Moreover, education is associated with health outcomes (Cohen & Syme, 2013; Mirowsky & Ross, 2003), political involvement (Dee, 2004; Emler & Frazer, 1999), as well as family life and demographic behavior (Blossfeld & Timm, 2003; Härkönen & Dronkers, 2006; Kravdal & Rindfuss, 2008). In addition, education and training has been identified as a key driver of economic and social integration of immigrants and their offspring in host countries (OECD/European Union, 2015).

Yet, *educational chances of children* still remarkably depend on their family origin in modern societies. The impact of socio-economic (and cultural) conditions in the family background on children's educational outcomes is well documented for educational achievement in primary school (e.g., Gustafsson, Hansen, & Rosén, 2011) and secondary education (e.g., Marks, Cresswell, & Ainley, 2006), but also for educational transitions and final educational attainment (Breen, Luykx, Müller, & Pollak, 2009; Jackson, 2013; Shavit & Blossfeld, 1993). Since education as human capital is an increasingly important resource for labor market outcomes, social inequality in educational attainment is at odds with equal opportunities by offsetting generational mobility in income and socio-economic status (Corak, 2004).

Beyond differences by mere socio-economic background, *immigrants and children of immigrant families* sometimes find themselves additionally disadvantaged compared to native children in terms of educational participation and outcomes, although achievement gaps tend to wane across generational state of immigration (Riederer & Verwiebe, 2015). Additionally, origin and destination cultures as well as the socio-cultural interaction between various origin and receiving countries can make a large difference with regard to migrant-native gaps in education and labor market outcomes (Levels & Dronkers, 2008; van Tubergen, Maas, & Flap, 2004). For instance, migrant-native gaps turn out to be smaller in receiving countries with more selective migration (like UK) as compared to countries with a long-standing 'guest worker' tradition (like Germany or Netherlands) or humanitarian migration countries (like Sweden or Norway) or southern European countries (like Italy, Portugal, or Greece) which have experiencing a recent inflow of low educated migrations in the 2000s (OECD/European Union, 2015). Within countries, enormous differences in the educational success between children of particular ethnic backgrounds and natives exist, which is only partly attributable to different socio-economic compositions, educational aspirations and acculturation conditions (Levels & Dronkers, 2008; Levels, Dronkers, & Jencks, 2014; von Below, 2007; Worbs, 2003). This paper provides a short overview on the state of more recent research on roots and development of social and ethnic inequality in education across various stages of the life course. A major purpose of this review is informing the comparative research design on roots and development of skills gaps that is pursued by Working Package 1 of the ISOTIS project. Our discussion starts with a conceptual clarification of inequalities in education. Subsequently, adopting a life-span perspective, we discuss the state of research on the development of skill gaps in early childhood, at the transition to and during primary and later secondary school. In a third part, we focus on some recent comparative research that studies the impact educational systems have on educational inequality across children from different family backgrounds. We conclude with highlighting gaps in the literature and discuss the needs for further research that are going to be addressed by ISOTIS.

## SOCIAL AND ETHNIC INEQUALITY IN EDUCATIONAL OPPORTUNITY

When addressing inequality in education, one must distinguish, on the one hand, the *object* of inequality and, on the other hand, the *level* of inequality under scrutiny. Ignoring the differences by *object* and *level* of inequality can easily lead to confusion while navigating through the vast body of research on educational inequality that has been accumulated in the recent decades and is cross-cutting disciplinary boundaries of economics, sociology, psychology, or educational research.

At a most general level, one could classify objects of inequality into either *learning outcomes* and *learning environments*. By *learning outcomes*, we refer to children's intellectual capacity at a certain point in time expressed in certain skills, abilities, and competencies that allow them to master certain tasks like passing a reading test. *Learning environments* relate to children's participation in educational contexts such as pre-school or schools which may provide to them specific opportunities securing intellectual stimulation and progress. Schools, for instance, may differ in structural features such as resources and equipment, teachers' qualification, curriculum demands, social composition of the student and parent body. These shape the quality of the process of individual development and learning achievement. According to the bio-ecological model proposed by Bronfenbrenner and others (Bronfenbrenner & Ceci, 1994; Leseman & Van Den Boom, 1999), development of individuals is driven by *proximal processes* expressed in recurrent interactions of individuals with their immediate environments across the entire lifespan. Individuals participate in micro-systems such as the family, classrooms and schools, peer groups and the agglomeration of micro-systems form the meso-system of individual development. From the bio-ecological perspective, various dimensions of multi-faceted environments embedded in the micro-, meso- as well as the more distal exo-system integrate into the macro-system of an individual learner.

A distinction between objects of inequality – learning and environment – is useful to better understand how inequality in education evolves during the life course. From a life course perspective, educational achievement can be seen as a cumulative process involving a mutual dependency of (1) children's (prior) learning abilities and (2) their exposure to environments shaping opportunities for learning. In this respect, a higher ability at one point in time facilitates future learning processes. In other words, learning begets learning (Stanovich, 1986). The quality of the learning environment at home and pre-school, or school institutions may hamper or foster learning, and learning levels subsequently shape chances of progressing in school. All contemporary education systems provide – in more or covert ways – educationally differentiated programs; as a consequence, learning levels can become crucial at transitional points in school career when educational decisions need to be made. For instance, in many countries prior level of achievement are decisive for sorting students to more academically demanding and prestigious secondary school tracks, subjects or ability groups (Blossfeld, Buchholz, Skopek, & Triventi, 2016). Such processes of cumulative advantage can produce Matthew-effects (DiPrete & Eirich, 2006), which cause initially minor differences in individual conditions to result in large discrepancies over time.

As to the second point, the *level of inequality*, research uses to distinguish inter-individual differences from inter-group differences whereby groups are defined by status variables. Children differ in their endowments, their learning effort, and the environmental opportunities they are exposed to. Thus, variation in individual circumstances create variation in learning outcomes between individuals, which also has been labeled *inequality as dispersion* (Van de Werfhorst & Mijs, 2010). Yet, to the degree that variation in learning outcomes is explained by ascribed characteristics, such as the socio-economic status of the parents, child's ethnicity and migration status or child's gender, we may speak of *inequality in educational opportunity*. The concept of inequality in educational opportunity is closely related to the concept of

intergenerational social mobility, and to the moral concept of an open society ensuring equal chances, as a greater social inequality in educational opportunity translates into less social mobility. A large body of literature on inequality of opportunity has been investigating the association between ascribed status characteristics and attainment of educational qualifications and social positions in the stratification system (e.g. occupation, or social class), and, how these associations differ between countries and change over time (Breen & Jonsson, 2005).

## **SOCIAL AND ETHNIC SKILL GAPS**

*When, how and why do social and ethnic gaps in abilities and skills arise during early life?* Markedly, most evidence on that comes from research based on the United States. Social and ethnic inequalities start early. Some studies argue that parents with a high socioeconomic status may have more innate characteristics which they can genetically pass on to their children, such as their IQ, height and race (Boudon, 1974; Mare, 2014; Preston & Campbell, 1993). Furthermore, impoverished economic conditions in the family may increase risks of children, such as lower birth weight and poorer child health, which could cause deficits in cognitive functioning, behavior, activity, and school achievement (Crooks, 1995). Moreover, studies showed that the environment at home is of fundamental relevance for children's development of cognitive abilities (Dearing & Tang, 2010). Socio-economic resources of the family, particular parental education, are positively correlated with quality of parental involvement, with more beneficial home environments, time spent with children and more favorable parenting styles (Bonke & Esping-Andersen, 2011; Gracia, 2014; McNeal, Jr., 2001; Sayer, Gauthier, & Furstenberg, 2004; Smyth, Whelan, McCoy, Quail, & Doyle, 2010; Sullivan, Ketende, & Joshi, 2013; Yoshida, 2011).

Brain development lays the foundation for future learning, and cognitive development is strongly dependent on learning stimulation in the early years, with impoverished rearing environments having lasting negative consequences for children's life chances (Shonkoff & Phillips, 2000; Walker et al., 2011). Learning stimulation during early childhood is likely one important cause of persistent, and perhaps growing, income gaps in achievement that favor children in middle- and higher-income homes compared with those in lower-income homes (Dearing, Berry, & Zaslow, 2006; Duncan & Magnusson, 2011; Hart & Risley, 1995; Reardon, 2011). Language possession is an important aspect in this respect. For example, Hart & Risley (2003) estimated that at the age of three, children from upper socioeconomic status families have heard more than 30 million more words than children from lower socioeconomic status families. As a result, social differences in language processing skills are evident before children go to school (see also Fernald, Marchman, & Weisleder, 2013). In the US, these differences in language skills during early childhood can to a great extent explain differences in school performance between lower- and higher-income children during elementary school (Durham, Farkas, Hammer, Bruce Tomblin, & Catts, 2007). At a later age the size of the gap in language comprehension and expression possibly increasing through at least early adolescence (Farkas & Beron, 2004).

Parents matter for children's development of non-cognitive skills that may be crucial for educational success, too. Sociologists like Lareau (2003), based on ethnographic research methods, identified class-specific parenting practices like the "concerted cultivation", that is typically pursued by middle and upper class parents. This parenting strategy subsumes parents' school engagement, children's participation in extra-curricular activities, and the amount of educational materials in the home. It promotes among children a sense of 'entitlement' and confidence creating a cultural edge in educational settings like schools as compared to a "natural growth approach" that is typical for working class parents. Quantitative

studies found support for the concept of concerted cultivation (Carolan & Wasserman, 2014; J. E. Cheadle & Amato, 2011; Jacob E. Cheadle, 2009; Irwin & Elley, 2011; McCoy, Byrne, & Banks, 2012). Whereas socioeconomic status is the major correlate of parents' use of concerted cultivation, important racial/ethnic differences in concerted cultivation remain. Economists have stressed the significance of parental investments for the formation of non-cognitive skills which in turn promote the formation of cognitive skills (Cunha & Heckman, 2008). For children from immigrant families, cultural values of origin and specific conditions of acculturation and participation in the host society play an important role for school success (Nauck & Schnoor, 2015).

## EARLY CHILDHOOD EDUCATION AND CARE

*Public provision of pre-primary education* has been put on most political agendas during the recent decades (Eurofound, 2015). Studies, predominantly from the U.S., suggest that high quality preschool programs effectively promotes children's cognitive development, school readiness, and even long run economic and non-economic outcomes (Barnett, 1995; Burger, 2010; Heckman, 2006; Nores & Barnett, 2010). Pre-primary programs may alleviate social and ethnic disparities in competencies as the relative gains are greatest for children from minority and poor families in comparison to the quality of education they would receive from their parents (Esping-Andersen et al., 2012). Yet, evidence is mixed. Effectiveness of preschool attendance depends on factors relating to exposure and quality of programs (Burger, 2010). In countries like the US, high status and native parents use their knowledge and (financial) resources to ensure the highest quality of (pre-primary) education for their children, for instance by sponsoring their schools or buying houses in areas with the best schools, amplifying the existing inequalities (Esping-Andersen et al., 2012). Thus, scholars have argued that preschool interventions may iron out social gaps in achievement if access to high quality care is proliferated among disadvantaged families (Del Boca, 2015; Magnuson, Ruhm, & Waldfogel, 2007). Though, children of disadvantaged families may not entirely reap the benefits of preschool education if access and usage of high quality care and education is socially selective due to spatial, economic or cultural constrains. Albeit there is sound evidence that pre-school programs can improve learning outcomes of disadvantaged children, recent comparative research is dampening the too optimistic expectation that pre-primary programs alone can ironing out the overall socio-economic achievement gaps emerging in the population of children (Blossfeld, Kulic, Skopek, & Triventi, 2017).

## THE ROLE OF SCHOOL AND EDUCATION SYSTEMS

Children with social disadvantage in terms of socio-economic or ethnic background enter school with cognitive disadvantages (Bradbury, Corak, Waldfogel, & Washbrook, 2015; Lee & Burkam, 2002). Such gaps in early abilities by social and ethnic background likely translate to social disparity in school achievement when children make the *transition from pre-school age to school*. For instance, inequalities by socio-economic background, race/ethnicity and gender in skill-based reading group placement in primary school partly result from the uneven distribution of academic, social, and behavioral skills that matter for teachers' grouping decisions (Condrón, 2007, 2008). Findings on development of achievement gaps are not unequivocal. For instance, detailed analyses for the U.S. demonstrate achievement gaps between socio-economic and ethnic groups to be very robust over the course from school entry into later high school years (LoGerfo, Nichols, & Reardon, 2006). However, Baumert, Nagy, & Lehmann (2012), who studied social and ethnic inequality in learning outcomes of German primary school students, found compensation effects emerging for reading, to the benefit of ethnic minorities. Increasing inequality, though, was found for math. Luyten,

Cremers-van Wees, & Bosker (2003), for the Netherlands, found evidence for increasing inequalities in language and arithmetic by educational background during primary school years. Probably cumulative disadvantage and compensation effects are working at the same time, with strengths depending on a mixture of origin, type of skill (e.g. language or math), and specific structural factors, such as the attention for weak and strong performing children in class.

While students navigate through school they will face transitional points where they and their families must make decisions on how to proceed in the educational career. For instance, what kind of educational track or curriculum to pursue in lower and upper secondary education. Socio-economic background is shaping these decisions, primarily, through differential academic performance of children making children more or less likely to succeed and, secondarily, through background-specific educational aspirations and cost-benefit calculations. Those primary and secondary mechanisms of social background jointly drive educational participation rates in secondary education (Boudon, 1974; Breen & Goldthorpe, 1997; Jackson, 2013). Thus, educational differentiation in secondary school systems creates bifurcations in educational careers that may stabilize or even aggravate social inequalities in educational opportunities among children by putting them on different curriculum tracks embodying different learning environments. Notably, the relative strength of secondary effects was found to exhibit considerable variation across countries with varying degrees of stratification and selectivity in their educational systems (Jackson, 2013).

Viable *features of educational systems* may proliferate or dampen social inequalities (Van de Werfhorst & Mijs, 2010). Depending on the degree of differentiation in the (secondary) education system, children's sorting to different learning environments based on achievement and families' choice may strengthen path-dependencies fostering the ongoing process of cumulative (dis)advantage in the educational career. Thus, social and ethnical segregation of *schools* giving rise to diversity in quality of learning environments (Brunello & Checchi, 2007) may not only result from residential segregation (Boterman, Karsten, & Musterd, 2010), but also from explicit between-school tracking (Jenkins, Micklewright, & Schnepf, 2008). Stratified achievement and educational choice may eventually amplify divergent educational pathways. In fact, studies on equity and efficiency of educational systems concluded that early stratification and sorting of students to different tracks of secondary schools tend to increase inequality in academic achievement among students while not improving, and maybe even reducing, overall achievement levels (Hanushek & Woessman, 2006). Moreover, in tracking systems disparities by socioeconomic background in academic achievement and educational attainment tend to be larger as compared to comprehensive systems, particularly when tracking starts early (Becker & Schubert, 2006; Bol, Witschge, Van de Werfhorst, & Dronkers, 2014; Brunello & Checchi, 2007; Gamoran & Mare, 1989; G. N. Marks, 2005; Van de Werfhorst & Mijs, 2010).

Recent studies provide more refined conclusions on the role of education-institutional features. For instance, they try to incorporate on the level of systems and nations variables that measure degrees of tracking and educational differentiation (e.g., age of tracking, number of tracks), study the role of sorting based on abilities (e.g., through binding teacher recommendations, standardized exit and entrance exams), exploit regional heterogeneity in educational systems of countries, or take into account school level mechanisms (e.g., social and intellectual composition of the student body, teacher quality, school resources) in order to obtain better insights to the question of how system effects actually operate in producing certain educational outcomes (Blossfeld et al., 2016; Bol et al., 2014; Dronkers, van der Velden, & Dunne, 2011; Dronkers, Van Der Velden, & Dunne, 2012; Dunne, 2010; Esser & Relikowski, 2015; Skopek & Dronkers, 2015). As a still much less studied issue stands, though, whether educational differentiation and tracking has negative ethnicity effects on inequality of

educational opportunity independent of socio-economic status effects (Van de Werfhorst & Mijs, 2010).

## CONCLUSION

To conclude, policies combating social and ethnic inequality in educational opportunities necessitate a robust empirical understanding of (1) when and how in the life span of children social and ethnic gaps in early skills and abilities, educational achievement and attainment are emerging and (2) how institutional settings of educational systems may compensate or amplify inequalities by shaping opportunities and constraints for children's development. Still, much of available research adopts cross-sectional approaches providing snapshot like evidence at certain stages of the educational career. Contrary, investigations that trace when and how social and ethnic achievement gaps unfold over the early years are still very rare. While recent comparative work has analyzed social gaps in achievement in North America, Australia and the UK (Bradbury et al., 2015; Feinstein, 2003; Votruba-Drzal, Coley, Collins, & Miller, 2015), up to now, there is hardly any comparative study among European countries which exhibit much richer heterogeneity in institutional settings. This lack is striking, since it is the variation in educational gaps and trajectories across different states, systems, and regions that provide essential clues for identifying successful or poor strategies of educational policies and practices in order to tackle inequalities. Moreover, only a longitudinal and cross-national perspective taking into account the wider context of societies and education in Europe could reveal the roles of early education and care interventions and practices, comprehensive and inclusive schooling, modern teaching approaches, and family support programs for effectively enhancing equal opportunities for children from migrant and less-advantaged families.

## THE DESIGN OF ISOTIS

Working Package 1 of ISOTIS will fill gaps in the literature by pursuing a theory-driven, unprecedentedly comprehensive, representative and most up-to-date empirical assessment of social and ethnic inequalities in educational outcomes from infancy to adulthood across various European countries. Contrary to previous research, ISOTIS will adopt an explicit longitudinal perspective on children's educational careers and particularly address early processes in pre-primary and primary education. Central attention will be put to understanding how and when social and ethnic differentials in educational development of children unfold by considering the variety of societal, educational and cultural contexts among European welfare states. Thus, exceeding the scope of past research we adopt a thorough cross-national approach. More specifically, we will provide answers to the following questions: How large are social and ethnic gaps in skills, achievement, and educational attainment at different stages of the educational cycle in European countries? Have these gaps increased or decreased during the past decades? When do these gaps emerge during childhood in different countries and are these gaps persistent? What is the size of the skill gap before school entry? And do these gaps widen or narrow during the child's educational career? What happens during school years, particularly, during the transition from pre-primary to primary school and primary to secondary school? How do gaps in early skills translate into disadvantage in school and educational attainment? Do immigrants of comparable origin and their children perform differently in various destination countries?

Next to elaborating a solid and comparative empirical base on educational trajectories, in a second objective, ISOTIS research will contribute to identify important mechanisms and nodal points in modern societies' educational systems and practices which are amenable to targeted policy intervention at multiple levels. We will review and detect several (national) policies and interventions and assess their effectiveness in 'leveling the playing field' for

disadvantaged children. More specifically, will answer the following questions: Which policies can effectively reduce gaps in skills and educational outcomes? What can be done at different levels by policy makers to combat social and ethnic inequalities as early as they may arise? What is the role of home environments and families and what can be done to support them? What is the role of pre-primary education and care and what can be done to increase participation rates of disadvantaged children? How does the organization of education systems and schools impact on inequality and what can be done to reduce stratification effects in early educational careers?

To achieve these objectives, a powerful research framework is adopted. This involves (1) a longitudinal design based on quasi-panel as well as panel data, (2) a comparative design that draws on older and more recent data from various European countries, and (3) supporting quasi-experimental designs for studying effects of interventions on educational inequalities. The comparative design will involve both a large-N and a small-N approach. Achievement gaps will be studied in a more representative way based on large number of European countries (20–25 countries) exploiting internationally pre-harmonized assessment data collected at different stages of the educational at different times for different cohorts of individuals. More in-depth perspectives will be obtained based on a case-based comparison of 5-6 selected countries exploiting available child cohort studies. Multiple perspectives from economics, sociology, educational science as well as psychology will be integrated to better understand when, how, and why achievement gaps and inequality in educational opportunity among children from different families are evolving and what the factors are that are susceptible for successful policy interventions.

## APPENDIX – ITEM INPUT FOR ISOTIS CORE STUDY

In the following, a series of concepts and items is listed that we deem to be important for asking in the interview study. Questions having priority are marked highlighted in red.

### PARENTS QUESTIONNAIRE

- Relationship of respondent to target child
  - biological mother (father), adoptive mother (father), foster mother (father), partner of father (mother), step mother (father), other
- Child's sociodemographics
  - Sex of the child (male, female)
  - Date of birth (year, month)
  - Child born in the country (yes, no); if no, name of country
  - Does the child have citizenship in the country?
- Siblings of child
  - How many siblings does <name of target child> have? (this includes all biological and social siblings, in other words also step, half or adoptive siblings)
  - How many siblings live in the same household as <name of target child>?
- Health of the target child
  - Does <name of target child> have an officially recognized disability?
  - Since what year has the disability been recognized?
  - What is the percentage of the disability today?
  - What is the weight of <name of target child>? (KG)
  - What is the height of <name of target child> without shoes? (cm)
  - What was the weight of <name of target child> at birth? (grams)
  - What was the height of <name of target child> at birth? (cm)
  - Was <name of target child> a premature baby? (A premature baby is born at least 3 weeks before the due date.)
  - Did <name of target child> suffer from health problems during the first 4 weeks after birth?
- Educational history of target child
  - Preschool history
    - Did <name of target child> go to a preschool institutions, childcare center or Kindergarten before school enrollment? (yes, no)
      - If yes, at which age (year, month) did the child attend this setting for the first time?
    - Child currently enrolled in a preschool setting?
  - School history
    - Child currently in school?
    - Has <target child's name> started school early or at the regular age?
    - When did <name of target child> start school? Please state the month and year.
- Cultural capital/resources at home
  - How much time do you spend on reading in your free time on a normal working day?  
(here all possible reading opportunities should be recorded. In addition to

printed books and newspapers, e-mails or texts on the internet are included)  
– response format: hours, minutes

- **How many books do you have about in your home? As an aid: about 40 books fit on one meter of shelf.**

Do not include magazines, newspapers or schoolbooks.

Response format: 10 books or less, 11 to 25, 26 to 100, 101 to 200, 201 to 500, 500 or more.)

- **How often have you done the following things in the past 12 months:**

- ... visited a museum or an art exhibition?
- ... watched a movie at the cinema?
- ... visited an opera, a ballet or a classical concert?
- ... been to the theater?
- ... visited a rock or pop concert?

Response format: never, once, 2-3 times, 4-5 times, more than 5 times (refused, don't know)

- Before your child began primary/elementary school, how often did you or someone else in your home do the following activities with him or her? Read books / tell stories / sing songs / write letters or words / talk about things you had done
- How often do you or someone else in your home do the following things with your child?
- Discuss my child's schoolwork with him/her / Help my child with his/her schoolwork / Make sure my child sets aside time to do his/her homework / Ask my child what he/she learned in school / Help my child practice his/her reading / Help my child practice his/her math skills / Talk with my child about what he/she is reading
- How far in his/her education do you expect your child to go?

- **Household income**

- **How do you assess your economic household situation today?**

- Scale 1-5, from very poor (1) to very good (5)

- **Monthly income of your entire household:** What is the monthly household income of all household members? Please state the net amount, in other words the amount after taxes and social security contributions.

- Response format Input in Euros

- If not input is given then ask categories:

- Please tell me whether your monthly net household income is more or less than 2,500 Euros?

- (1) Less than 2500
- (2) 2500 and more

- If (1) then

Which of the categories apply to your net household income?

- < 1000
- 1000 – under 1500
- 1500 – under 2000
- 2000 – under 2500

- If (2) then

Which of the categories apply to your net household income?

- 2500 – under 3000

- 3000 – under 4000
    - 4000 – under 5000
    - 5000 and more
  - How many persons live in your household?
- **Demographics of parent respondent**
  - Date of birth (year, month)
  - Sex
  - Country of birth (born in this country, if not specify country, when moved here)
  - Nationality and citizenship
  - Marital status
    - Single
    - Single, cohabitation with partner
    - Married
    - Divorced
    - Widowed
  - Degree of urbanization in the residence area
- **Educational level of both parents (if there are two),**
  - using national scales and/or years spent in education
- **What language do you speak at home?**
  - When talking at home with your child, what **language** does the child's father (or stepfather or male guardian) use most often? What language does the child's mother (or stepmother or female guardian) use most often?
- **Information on income and current job (or last one) – ask for both parents:**
  - Ever paid work?
  - Current employment status
    - (full time, part time, unemployed, not working)
  - What is your (current or last one) job title?
    - What was the job title of your last job? How many months ago was this?
    - occupational field,
    - occupational activity,
    - industry, occupational position (supervisory role)
  - Work hours average weekday (both parents)
- **Social capital**
  - In the last 12 months, how often, if at all, did you do voluntary work, including unpaid work for a charity, political party, trade union or other non-profit organisation?  
Response format: never, once, 2-3 times, 4-5 times, more than 5 times (refused, don't know)

#### QUESTIONS THAT MIGHT BE ASKED TO THE CHILDREN

- **Level** or grade of education
- **Skills and marks in school** (e.g. test scores)
- How often do you speak <language> of test at home?
- Does you have any of these things at your home?

- Computer
- Study desk
- own room
- Internet connection.
- Works of art
- How often do the following things happen at home? (from the perspective of the child)
  - My parents ask me what I am learning in school?
  - I talk about my schoolwork with my parents
  - My parents check if I do my homework
- To what extent do you disagree or agree with the following statements about yourself?
  - I often worry that it will be difficult for me taking a test. / I worry that I will get poor <grades> at school. / Even if I am well prepared for a test I feel very anxious. / I get very tense when I study for a test. / I get nervous when I don't know how to solve a task at school.
- To what extent do you disagree or agree with the following statements about yourself?
  - I want top grades in most or all of my courses. / I want to be able to select from among the best opportunities available when I graduate. / I want to be the best, whatever I do. / I see myself as an ambitious person. / I want to be one of the best students in my class.

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This project has received funding from the  
European Union's Horizon 2020  
research and innovation programme  
under grant agreement No. 727069