

Project Proposal

PISA Longitudinal

– a longitudinal database on research of the transition from youth to adulthood

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References

Introduction

A research network consisting of AKF (Institute of Local Government Studies – Denmark); SFI (the Danish National Institute of Social Research); Department of Education and Learning, Aalborg University; Department of Economics, Aarhus School of Business; DPU (the Danish University of Education); the Department of Sociology, University of Copenhagen applies for financial support for the establishment of a longitudinal database (PISA Longitudinal) regarding the transition from youth to adulthood. The application includes the costs of the documentation and accessibility of the database for other researchers and students who are not members of the network, but not for actual research on the data material.

The database will be established as a follow-up survey of the existing PISA database (Programme for International Student Assessment) with added administrative register data with the aim of carrying out analyses of young people born in 1983/84 within topics like: choice of education, social background, academic knowledge and skills, social competences, guidance, ethnicity, social network, cultural interests, values and future prospects. With this internationally recognized database as the point of departure a basis for research that will attract international attention will be created. Even now a comprehensive international research based on PISA is available, but with a longitudinal study as the one outlined here – where additional register information is added – Danish research results of great international interest could be achieved.

In the long run, further data collection – among others test of knowledge and skills – could create a comprehensive database for the use of analysing the whole transition from youth to adulthood. Register information on young people's way through the education system and entering the labour market will be connected to the dataset.

1. The research area that the database aims at

The purpose of establishing PISA Longitudinal is to create a solid basis for the research of the transition from youth to adulthood focusing on how young people's social background, and their experience of compulsory school – including gained skills, attitudes and values – influence their choice of education and position and experience on the labour market. In the long run, the research perspective is the way from childhood through youth and education to adulthood embedded in family and working life. In the short run, the perspective is young people's way through the education system or their way to the labour market after compulsory school.

Theories on the factors influencing young people's choice of education, see e.g. Ekspertgruppen om social arv (1999), are crucial for the database. The point of departure of the database is an already established PISA database containing information on young people's skills regarding reading, mathematics and science (cognitive competences) and information on their family background and schooling, see Andersen et al. (2001), OECD (2001) and Sect. 4. The information gathered on family conditions has for instance been inspired by Bourdieu's theory on social reproduction (see Ganzebook & Marks 2002) and can therefore describe the economic, cultural and social capital of the family. See also

Esping-Andersen (forthcoming) and Jensen & Turmo (2003), where you find Bourdieu-inspired analyses based on PISA data. Unlike previous analyses the PISA database not only includes information on the parents' socioeconomic position, but also on the family's behaviour, e.g. regarding cultural communication, which appears to be of great importance regarding the skills of the young people. On the other hand, the PISA database does not include information on young people's norms, attitudes and values and their wishes regarding education and work. In the first follow-up survey the database has to gather information in this field. In this way a basis of extensive analyses on the connection between social background, attitudes and values as well as choice of education will be created.

The development of the database will be based on both sociological and economic theories. The first sociological approach is the theory of social reproduction pioneered by Bourdieu and employed in empirical research by both himself and others, cf. Bourdieu & Passeron (1977), Bourdieu (1986), Bourdieu (1996), Broady et al. (2002). This approach conceptualises educational trajectories in the interplay of social fields, different types of habitus and different types of social capital. The second approach is the theory of cultural modernisation as developed by researchers like Beck (1992, 1994) and Ziehe (1989, 2000). This approach tries to capture the changes of cultures and values in modern society, and the cultural consequences, especially among young people, of the weakening power of traditional values. Aspects of this approach have been explored in surveys of value change, but further work on indicators remains to be done (Gundelach 2002).

Inspired by Bourdieu's stress on »cultural capital« (Bourdieu 1983), there is a growing economic literature (see e.g. Bowles et al. 2001; Heckman & Rubinstein 2001; Cawley et al. 2001) which suggests that a) social skills, personality traits, and cultural capital may be as important as educational certificates for labour market success; and b) that the cultural just as well as educational resources of parents are vital for children's cognitive development and subsequent school performance. The database to be established will combine the existing data on cognitive and non-cognitive skills of the students and parental background with new data on the students while on their way through the education system and on the labour market. We will thus be able to study the interplay of academic and social skills in educational choice and how these two types of skills are rewarded in the labour market.

Another focus in the existing PISA dataset is on learning strategies. With the challenges of »lifelong learning« it is increasingly important for students »to learn how to learn«. With the database to be established, we will be able to analyse, whether some learning strategies are superior to others as measured by e.g. the students' success in the education system and in the labour market.

A further topic of interest is on educational and occupational guidance. Many young people enter the labour market late after having experienced a prolonged odyssey in the education system: starting on and dropping out of their studies or vocational education several times before beginning their »final« education. With the database to be established we can study the need for and the effect of better educational and occupational guidance.

For the empirical analysis of school choice involving the economic approach, the new database will have to collect data on e.g. young people's knowledge/perception of wage levels at different stages of education, their attitudes towards study debts, and their »taste« for education.

As can be seen in Sect. 4 we will try to describe important factors for young people's choice of education through the topics of the first follow-up questionnaire using among other things the theoretical approaches mentioned.

2. The quality of the database

The planned longitudinal database takes its point of departure in the Danish contribution to PISA, which was initiated by the OECD and carried out in 2000. It measures 15-16-year-olds' literacy skills regarding reading, mathematics and science as well as a series of personal and social skills. In Denmark, the survey was carried out by a consortium consisting of DPU, AKF and SFI who headed the data collection. 4,242 born in 1984 (15-year-olds) and 2,224 born in 1983 (16-year-olds) took part in the survey. Because the vast majority of the young people has a civil registration number it is possible to get in touch with them again in order to re-interview them, just as it is possible to add register information on the young people.

The literacy tests were carefully chosen by international expert panels and must therefore be considered as the highest obtainable level at present. An appendix in the research report (Andersen et al. 2001) further specifies the research method and the data quality.

The planned re-interviewing – to take place in the spring of 2004 – will be carried out by SFI-Survey being very experienced in this field. The collection method first of all consists of a series of telephone interviews, followed up by face-to-face interviews with people whom we did not reach on the telephone. We expect a total response rate of about 75.

A special aspect about the quality of the database often overlooked is its availability to others. It is of great importance that the database is well documented and that important research variables are directly accessible.

In addition to the adjustment of the raw data – routinely made by SFI-Survey before passing on the data – a subsequent construction of the research variables directly usable is carried out. When the database is released for use in a wider group of researchers than that of the network it will include the developed research variables. Furthermore, variables constructed later on will enter the database as a continuous updating. Documentation of the developed variables will be available.

3. The relevance of the database compared to the existing data sources

The way from compulsory school over youth education and perhaps further vocational training to a job on the labour market has been examined and analysed in SFI's longitudinal study of young people regarding the generation born in 1954, i.e. a generation from the

peak of the industrial society (Hansen 1995). The PISA generation of 1984 is not just 30 years younger, but in a number of different areas their conditions of life differ radically from those of the industrial society. How do young people of today relate to these conditions of life? In order to compare the two generations' change from youth to adulthood it would be appropriate to include in PISA Longitudinal a series of questions from the longitudinal study of young people.

There are *administrative registers* (in Statistics Denmark) in the education system and on the labour market which at an individual level can describe the development over time in a series of conditions of importance to the problems of this project. Therefore, it is possible to follow each individual course of education. However, if you want further information on the individual users' motives for choice of education the existing register data fall short. Quantitative data of an attitudinal nature will have to be collected by means of a questionnaire.

In the long run, PISA Longitudinal offers a gathering of interview-based data (including attitudinal data) from different periods during one generation's lifecycle. The measurements of students' academic knowledge and skills made in the 9th grade are quite unique. Add to this the possibility of connecting these data to the data in different administrative registers.

Earlier *surveys of young people's choice of education* have – like the DPI survey from 1993-96 among pupils in the 9th and 10th grade about their own valuation of conditions in connection with their schooling and how they were three years later (Skov 1995; 1996) – either focused on the transition from compulsory school to youth education or on individual groups' choice of further education (Zeuner & Linde 1997). However, there is no knowledge about a *whole cohort* (including the increasing part of people with another ethnic background than Danish) of young people's considerations and choice on their transition from a youth education to the labour market or to a further education as well as the final transition to working life.

In connection with the Danish Ministry of Education's programme *Uddannelse til alle* (UTA) (Education for everybody) all 17-25-year-olds' way through the education system was examined through a combination of interviews and register data (Jensen et al. 1997). An extension of the database has been considered. However, compared to the PISA database it is a disadvantage that the UTA database is spread over 10 years and particularly that there is no measure for the individual's personal and academic knowledge and skills which qualitatively could be compared to that of the PISA database. However, the UTA surveys – both the qualitative and the quantitative ones – have provided results regarding young people's attitudes to education etc. which could contribute to the construction of questionnaires in PISA Longitudinal.

4. The theoretical embeddedness of the database transformed into variables included in the database

The database will consist of the *existing* PISA database where the data were collected

when the young people were 15-16 years old, and the *new* data will be collected when they are 19-20 years old.

a) Contents of the existing PISA database

The important news in the PISA database is that it includes tests of the pupils' *literacy skills in reading, mathematics and science*. The tests are developed by international expert groups within their field. Furthermore, measures of the pupils' *personal and social skills* are included. The tests are developed to measure the competences that 15-year-olds are expected to have acquired by the end of compulsory schooling and things they will need in their future lives, i.e. in connection with education, at work and in their family and social lives. Thus, the aim has been to measure the *skills that are considered to be important for the individual's present and future life in a wider sense*.

Furthermore, by means of a questionnaire for the pupils, data explaining aspects of the family's/the pupil's economic, cultural and social resources or capital have been gathered. The following themes have been described:

- The family, including the parents' occupation and education.
- Ethnic background.
- Material and cultural possessions, education resources, communication within the family etc.
- The pupil him/herself, including school attendance, the relations between pupils and teachers, the relations with school friends, disciplinary climate, well-being etc.

Finally, the database includes information on school resources, teacher qualifications etc. Thus, to a high degree the existing data consider the reproduction theoretical point of departure, whereas the theory of cultural liberation in relation to education is only superficially examined. Therefore, this is going to get a significant place in the new data collection.

b) The contents of the supplementary data collection in 2004

The first supplementary data collection is going to describe young people's situation today. The vast majority has begun an education. Therefore, the choice of education will be a central topic. Where are they regarding education and/or job? What are they doing – and what is the reason for their choice? Does the education (or job) live up to their expectations?

The theoretical basis is presented in Sect. 1, and the following subjects will be examined:

- Ongoing (perhaps finished) youth education. Why was this education chosen? Who provided help and guidance? Satisfaction with the education (academically, educationally, socially, the formal tutorial system).
- Break off and reselection since compulsory school. Why?
- Choice of future education/job. Why this choice? Who provides help and guidance? The satisfaction with this.
- Values and future prospects, e.g. regarding
 - job/spare time

- a pessimistic/optimistic outlook on life
- a humanistic/technologic outlook on life
- individualistic/collective way of thinking
- entrepreneur/security seeking
- competition/equality
- Aims in life. Where are the young people going? Which considerations have they made regarding the realisation of these aims? Have they made a strategy – or is it just wishful thinking?
- Networks (family related, friendship related, work or study related, formal tutorial system) as a potential source of finding relevant information before making a choice.
- Cultural orientation. Spare-time activities and interests.
- Economy. Which sources of income? Total income and distribution on main sources. Borrowing and the attitude to this.

The complete structure of the database can be seen in figure 1.

It is the task of the consortium to establish an adequate operationalisation of the theoretical point of departure. In table 1 we present a thematic overview showing the embeddedness of the themes in the different theories (marked with grey).

Figure 1. PISA Longitudinal

Red: Existing PISA data

Blue and black: Data collection for which we apply for funds

Grey: Possible future data collections adjusted to the young people's age and stage of life

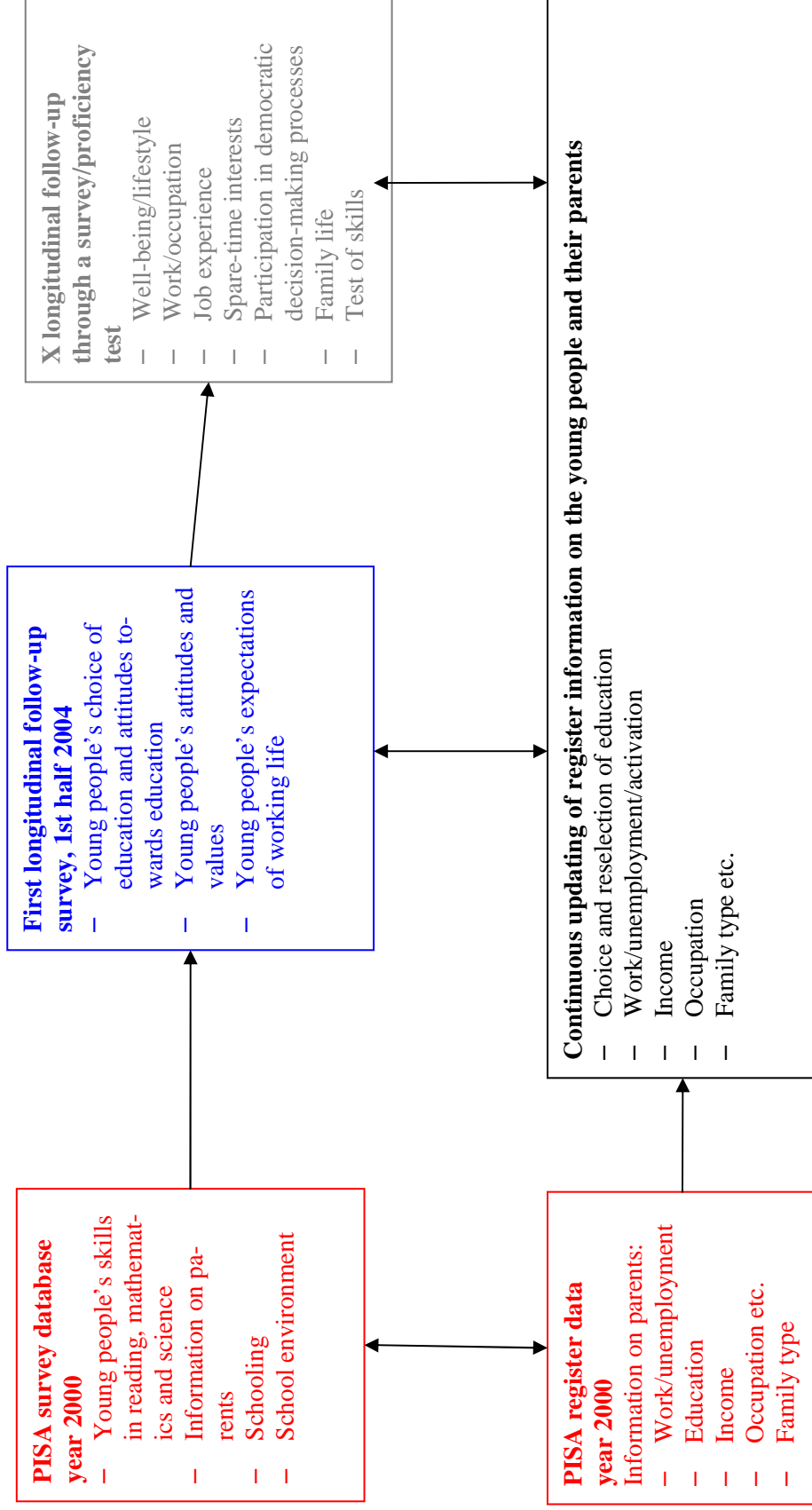


Table 1. Thematic overview

	Sociological theories		Economic theory
	Social reproduction	Cultural modernisation	
Survey data from 2000:			
Literacy in reading, mathematics and science			
Information about parents			
Schooling			
School environment			
Register data concerning 2000:			
Parents' work/unemployment			
Parents' education			
Parents' income			
Parents' occupation etc.			
Type of family			
Survey data from 2004:			
Choice of <i>youth education</i> - reasons for choice - satisfaction with the education (academically, educationally, socially, the formal tutorial system)			
Break off and reselection of education since compulsory school - reasons for break off/reselection			
Choice of education or occupation <i>after youth education</i> - reasons for the choice - help and guidance in connection with the choice (satisfaction with this)			
Own values and future prospects regarding. - job and spare time - humanistic or technologic outlook on life - pessimistic or optimistic outlook on life - individualistic or collective way of thinking - entrepreneur or security seeking - competition or equality			
Attitudes towards education - economic motive - social motive - knowledge-based motive			
Expectations of working life -			
Experience from working life			
Own goals for - education - occupation - family			
Conditions of realising the wishes -			
Own networks - family related - friendship related - work related - study related - formal tutorial system			
Cultural orientation - spare-time activities and interests			
Economy - Sources of income - Total income and distribution on main sources - Borrowing (during education) - Attitude towards borrowing			

Subsequent updating of register data:			
Choice of education			
Work/employment/activation			
Income			
Occupation			
Family type etc.			

5. The relevance of the database to the research of the participating environments

PISA Longitudinal will create good opportunities for carrying out research into young people's transition from youth to adulthood focusing on the factors of central importance to young people's choice of education. In that way the ongoing education research of the four institutions sending this project proposal will be strengthened

At a more general level PISA Longitudinal will also be a central database for research into social inheritance which is a problem that has to be included in major parts of social science research. PISA Longitudinal will make it possible to examine a series of theoretically formulated problems which cannot be done today. A longitudinal structure can analyse the connection between social background, literary skills in the compulsory school, attitudes and values, choice of education and in the long run job, income etc. in a way that creates possibilities for understanding connections which are seldom analysed in a dynamic perspective in longitudinal analyses. It will also be possible to examine questions of different individuals' belonging to different social communities throughout their lives.

Then in the first follow-up survey PISA Longitudinal will be able to describe young people's experience with the youth educations they have started on. In this way the database can provide knowledge of whether the educations match the young people's qualifications and wishes and in that way provide knowledge of the conditions that make some young people drop out and make others start on a new education.

Finally, the database could enrich the education at the universities, especially including education at a Master and Ph.D. level within sociology, economy and education research. Not only by making the processed data available to a wide selection of people (see Secti. 6), but also by researchers – who have taken part in carrying out the analyses – communicating the data in educational environments.

6. Specification of how the data are provided free of charge

Sect. 2 describes which data from the total database that are provided to a wider group of researchers than the ones involved in the network. When the database is properly documented it is provided free of charge through Dansk Data Arkiv (Danish Data Archive).

The network behind this proposal will also set up a *homepage* where the questionnaires used (including instructions), documentation of the data quality, new variables and construction of composites of indices as well as other material can be downloaded. Via the homepage a user-friendly data file can also be downloaded. The data provided to other researchers and students are the total survey-based longitudinal database, i.e. information from both 2000 and 2004.

The longitudinal database will be extended by administrative data on the young people who have finished compulsory schooling, see figure 1. Access to the database including register information will only be possible via Statistics Denmark.

7. Research activities that are going to be carried out by using the database

This project proposal is only aimed at creating a longitudinal database. As a first product we plan to make a report on young people's attitudes to and experience with the youth educations they have started on seen in the light of their social background, values, skills and experience with compulsory school. For that purpose we seek to get financial support for the report from e.g. the Ministry of Education. The database will, however, form a good basis for scientific articles and reports about young people's way into adulthood with a reproduction theoretic and a liberation theoretic point of departure, respectively. The following topics could be analysed:

Young people's *experience with youth education*. Implementation, difficulties during the process, interruptions seen in relation to personal qualifications, social networks, spare-time interests, parallel paid work, family background and educational and occupational guidance received.

Connection between *young people's attitudes and values* and the *completed education*. Are the values created by the education, or are they, on the contrary, the basis of the choice of education? By including data about young people's attitudes to work and education in the 9th grade a clearer understanding of this connection might appear.

Experience with *guidance* during and possibly after the youth education. The guidance – both the formal one in school and municipality, and the informal one in the family and among friends – is of great importance for young people's choice. Who of the young people benefit from which kind of guidance? And who do not benefit? Are there typical situations where good guidance is crucial to the successful start or continuation of the course of education?

The importance of spare-time interests and networks among friends when choosing a youth education and completing it. Is it young people with weak networks who drop out during the course of education?

The choice of further education (after the youth education) could be analysed on the basis of a big number of possible explanatory conditions like: social background, achieved literacy proficiency in compulsory school, personal qualifications, ethnicity, social network, spare-time job, and spare-time interests, attitudes and values, family background and the kind of guidance throughout the course.