School-to-Work Transitions—Findings from Quantitative and Qualitative Approaches in Youth Transition Research

Nora Gaupp

Abstract: In this article, I illustrate and reflect on the development of a model concerning transition to employment. A combination of quantitative and qualitative methods was employed in the context of a study of school-to-work transitions among lower educated young adults in Germany. Due to its interest in the intersection of structural and institutional determinants on one side, and individual action on the other, research on youth transitions has a long tradition of combining quantitative and qualitative approaches. Against this background I reflect on the steps of producing findings from such a mixed methods study. The argument follows a single case that was first observed in the context of a longitudinal survey and subsequently selected for a qualitative interview. Section 2 introduces the outcome of the quantitative analysis in terms of a logistic regression model based on a six year panel study, and discusses the relevance of individual, social, and structural variables for different types of pathways to the labor market. Developing a “quantitative profile” of a single case on the basis of longitudinal survey information follows. The third section of the article presents the qualitative profile based on a qualitative interview. The comparative analysis of all qualitative interviews suggests the consideration of the four main dimensions of agency, motivation, critical life events, and social interactions in an integrated model of school-to-work transitions. The concluding discussion in section 4 addresses critical issues, possibilities, and limitations of combining both research approaches as well as options of integrating them in youth transition research.

Table of Contents

1. Qualitative and/or Quantitative Transition Research?
2. Transitions from School to Work from a Quantitative Perspective
   2.1 Sequence patterns analysis and regression models to describe and predict process patterns
   2.2 Individual case study from a quantitative perspective
3. Transitions from School to Work from a Qualitative Perspective
   3.1 Individual case study from a qualitative perspective
   3.2 Central dimensions in the transition from school to work
      3.2.2 Motivation curves
      3.2.3 Critical biographical events
      3.2.4 The significance of social interaction
   3.3 An integrated model of transition processes
4. Conclusion
Appendix
References
Author
Citation
1. Qualitative and/or Quantitative Transition Research?

Transitions from school to employment depend upon the interaction and tension between individual strategies on the one hand, and socio-structural and institutional conditions, opportunities, and limits on the other (GEISSLER & KRÜGER, 1993; HEINZ, 2000a, 2000b; HILLMERT, 2004; PLUG & DU BOIS-REYMOND, 2006; RAITHELHUBER, 2011; RUDD & EVANS, 1998; STAUBER, POHL & WALTHER, 2007; ZINN, 2000). That is, such transitions are a result of an individual's ability to actively develop his/her own biographical transitions within the context of external conditions:

"Transitions in one's biography are institutionally framed, for instance the status passage from school to employment (...). The transition phases in German biographies are shaped by laws, regulations, contracts, certifications, processes of selection and negotiation, but also by faulty coordination and coincidences. These processes involve the individuals, their social relationships, organizations such as schools, universities, and training facilities, (...), governmental institutions, semi-governmental institutions, and last but not least socio-economic structures like the labor market" (HEINZ, 2000b, pp.4f., my translation). [1]

Within this context of opportunities and constraints, individuals make decisions and plan their lives, becoming the designers of their own biographies. This relationship between individual strategies and socio-structural conditions applies not only to Germany, as shown by international transition research (compare e.g. BRADLEY & NGUYEN, 2004; ELDER, 1998; ELDER & JOHNSON, 2002; FURLONG & CARTMEL, 2003; PLUG & DU BOIS-REYMOND, 2006; RUDD & EVANS, 1998; SCHERER, 2001; SHAVIT & MÜLLER, 1998). ELDER summarizes that transitions from school to work are the result of "choices and actions (...) within the constraints and opportunities of history and social circumstances" (1998, pp.961f.). [2]

These two aspects correspond with two traditions in transition research. A primarily qualitative perspective often focuses upon the individual as an active subject. This agent perspective highlights the individual's motives, educational aspirations, actions, and strategies (compare e.g. HEINZ, 2000a, 2000b; STAUBER et al., 2007; WITZEL & KÜHN, 2000). In contrast, quantitative transition research focuses more on socio-structural and institutional conditions which frame and structure the transition processes from school to employment. Representatives of this line of research often study, for instance, the formation of school systems as institutions which prepare youth for the labor market, the regulations for school and vocational education and training (VET) opportunities, and the thresholds on the way to employment, firstly from school to vocational education and training, and secondly from vocational education and training to employment (e.g. BEICHT & ULRICH, 2008; BEICHT, FRIEDRICH & ULRICH, 2008; BERGMAN, HUPKA-BRUNNER, KELLER, MEYER & STALDER, 2011; GAUPP, GEIER & HUPKA-BRUNNER, 2012; HUPKA-BRUNNER, GAUPP, GEIER, LEX & STALDER, 2011). [3]
It is rare that these individual, social and structural conditions are adequately woven together when developing investigation methods in this research field. Empirical studies are often limited to, or at least strongly focused on, only one of the two research perspectives. This is understandable, since considering both qualitative and quantitative research results at the same time is difficult on a theoretical as well as on the methodological level. From a theoretical perspective, one may ask how these results are related to one another, for instance if they complement or contradict each other. On the methodological level, one may ask what kinds of findings are attainable from both perspectives and how, and to which degree, one can draw wider conclusions from them. For a detailed discussion on integrating methods, see ERZBERGER and KELLE (2003), FLICK (2011), KELLE (2008), KELLE and ERZBERGER (1999), KLUGE and KELLE (2001), SEIPEL and RIEKER (2003) or TASHAKKORI and TEDDLIE (2003).

The following text pursues two aims. First, it presents research findings on transition processes from school into training programs and employment; these are based on qualitative and quantitative analyses in the context of a mixed-methods study. Second, this text reflects upon the practice of method integration in the research process, as well as the process of attaining findings using both of these methodological approaches.

The findings in this text are based on data from the German Youth Institute’s [Deutsches Jugendinstitut] (DJI) quantitative panel study on youth transitions from school to employment (BMBF, 2008) as well as a complementary qualitative study (GAUPP, 2013). The presentation of this research is organized in the following way (see Table 1). The first step is the analysis of quantitative data, based on the total research sample (Section 2.1). Patterns for transition processes are illustrated, and a regression model is used to examine the meaning of important indicators for transition processes. The second step is to take a closer look at a typical representative of one process type. First, I explore how one can depict an individual case study (of the young man Omar) using standardized, quantitative data (Section 2.2). Then I use the results of a qualitative interview with Omar to reconstruct his transition process from his subjective perspective (Section 3.1), and at the same time, I illustrate the connection between both methodological perspectives. Beyond this individual case, I also take a step in generalizing the findings by using the entire set of qualitative data to identify important dimensions in transition processes (Section 3.2). I then attempt to build an integrative model for this research (Section 3.3). Finally, as recommended by ERZBERGER and KELLE (2003), I will discuss the research process and the relationship between quantitative and qualitative empirical research findings.

---

1 One exception is the Special Research Department 186 “Status Passages and the Life Course” at the University of Bremen (HEINZ 2000b).
2. Transitions from School to Work from a Quantitative Perspective

The DJI-Transition Panel Study is a quantitative, prospective, longitudinal study on school-to-work transitions of young people with the most basic school education in Germany \textsuperscript{[2]} , focusing on a six-year time period starting from the last school year (BMBF, 2008; REIßIG, GAUPP & LEX, 2008). In March 2004, approximately 4,000 pupils in 126 schools throughout Germany filled out one of the standardized DJI questionnaires in their homeroom classes. These pupils were all in their last required school year, either in the Hauptschule or in Haupschule sections of Gesamtschulen or Sekundarschulen\textsuperscript{[3]}. The questionnaires asked pupils about their family situation, their friends, their extra-curricular activities, their school biography, their educational goals, and their further education and training plans for the period after completing this last school year. Starting in Fall 2004, the panel study used individualized computer-assisted telephone interviews (CATI) to regularly interview these young people (nine times) about their transition processes. \textsuperscript{[7]}

2.1 Sequence patterns analysis and regression models to describe and predict process patterns

The interview questions and analysis of the DJI-Transition Panel Study were developed to identify patterns of transition processes (GAUPP, LEX & REIßIG, 2008; GAUPP, GEIER, LEX & REIßIG, 2011). The sequential order of their educational, training and employment phases was examined using an Optimal-Matching-Approach (ERZBERGER & PREIN, 1997) and then grouped according to a cluster analysis. As a result, five different homogenous and distinct types of transition processes were found: direct start in a vocational education and training (VET) (27%), participation in a job-preparation program and then VET (17%),

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|}
\hline
 & Results at the individual level & Results to be generalized at the aggregate level \\
\hline
Quantitative approach & Case study presentation using quantitative data (Step 2) & Analysis of types of transition processes, regression model (Step 1) \\
\hline
Qualitative approach & Case study presentation based on qualitative data (Step 3) & Identification of relevant dimensions (Step 4) \\
\hline
\end{tabular}
\caption{Illustration of the methodological approaches and levels of analysis \textsuperscript{[6]}}
\end{table}

\textsuperscript{2} In Germany the main traditional school system requires that children in the fourth or sixth grade (depending on the state) are designated to one of three secondary schools: the highest level school is the Gymnasium, the mid-level school is Realschule, and the lowest-level school is the Hauptschule.

\textsuperscript{3} Gesamtschule is a more recent school form in Germany, whereby all children stay together in one school from the fifth grade. Sekundarschule is another, which begins after the elementary level, but combines the Hauptschule and Realschule level—and depending on the state, it may also include the Gymnasium level.

© 2013 FQS http://www.qualitative-research.net/
another school phase before VET$^4$ (28%), another school phase to qualify for a higher education (9%), as well as problematic phases of unemployment (19%). [8]

The five types of transition processes are illustrated further in Table 2 according to the distribution of central variables on different levels, i.e., the individual (assessment marks, absenteeism, repetition of grade- levels, job orientation, strain on the person due to his/her individual problem situation), social (social status, unemployment of parents, being raised in a one-parent household) and structural (regional unemployment of young people under 20 years old in 2005). A further level of analysis considers socio-demographic criteria such as sex and migration background$^5$ of these young people.

<table>
<thead>
<tr>
<th></th>
<th>Direct start with VET</th>
<th>Job-preparation program then VET</th>
<th>More school then VET</th>
<th>Continuing school to qualify for higher education</th>
<th>Precarious paths including unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better school assessment marks$^6$</td>
<td>46.3%</td>
<td>31.8%</td>
<td>53.4%</td>
<td>50.6%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>9.4%</td>
<td>20.1%</td>
<td>14.7%</td>
<td>13.8%</td>
<td>24.1%</td>
</tr>
<tr>
<td>Grade-level repetitions</td>
<td>41.5%</td>
<td>46.5%</td>
<td>29.8%</td>
<td>23.2%</td>
<td>47.3%</td>
</tr>
<tr>
<td>Unclear job orientation</td>
<td>10.8%</td>
<td>26.4%</td>
<td>12.0%</td>
<td>14.6%</td>
<td>32.5%</td>
</tr>
<tr>
<td>&gt; 3 personal problems$^7$</td>
<td>15.4%</td>
<td>16.6%</td>
<td>18.1%</td>
<td>15.9%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Girls</td>
<td>38.6%</td>
<td>37.7%</td>
<td>45.8%</td>
<td>48.8%</td>
<td>47.3%</td>
</tr>
<tr>
<td>Migration background</td>
<td>43.2%</td>
<td>60.3%</td>
<td>56.6%</td>
<td>59.8%</td>
<td>66.3%</td>
</tr>
<tr>
<td>Single-parent household</td>
<td>17.0%</td>
<td>23.9%</td>
<td>17.3%</td>
<td>17.1%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Unemployment of parents</td>
<td>5.0%</td>
<td>8.2%</td>
<td>6.0%</td>
<td>6.1%</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

---

$^4$ In Germany, it is possible to continue school to try to attain a higher-level school degree, in this case from the Realschule.

$^5$ In this text, young people are referred to as having a "migration background," meaning that they or their parents were born in another country.

$^6$ Assessment marks in German and math classes were "1 – 3" in a system where "1" is the highest and "6" is the lowest mark.

$^7$ More than three individual problems in the last two school years, such as debt, long-term conflicts with parents, problems with the police/court system or physical assault/conflicts.

© 2013 FQS http://www.qualitative-research.net/
Youth with good school marks are overrepresented in both school-focused paths patterns ("further school then VET" and "continuing school qualification for higher education"). School absenteeism is more prevalent among the clusters "job-preparation program then VET" and "unemployment." These youth are also more often unclear about their job plans. More generally, youth rarely continued with a new school phase if they had already repeated one or more grade-levels. A noticeably high number of those youth who experienced problematic phases of unemployment report that they had to deal with the stress of many personal problems. Young women and youth with migration background are less often represented in the process type "direct start with VET," and young women are also not strongly represented in the path "job-preparation then VET." Youth from single-parent households often start with a job-preparation program before starting with their VET. The unemployment of parents increases the likelihood that their children will take a more precarious path ("job-preparation then VET" or "precarious path in unemployment"). Youth whose parents have a higher socio-economic status often continue school and are less represented in the more problematic clusters. Youth from regions with higher unemployment rates are more likely to take a precarious path, but they also often take the path of continuing school to qualify for higher education. [10]

Using a multinomial logistic regression model 9, I then evaluated the statistical significance of these indicators for predicting these youths’ categorization in one of the five types of transition processes (Table 3). The five path types are the dependent variables, whereby the cluster "direct start with VET" is the reference category.

### Table 2: Values of predictor variables for the five types of transition processes [9]

<table>
<thead>
<tr>
<th></th>
<th>Direct start with VET</th>
<th>Job-preparation program then VET</th>
<th>More school then VET</th>
<th>Continuing school to qualify for higher education</th>
<th>Precarious paths including unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social status ISEI 8</td>
<td>40.7</td>
<td>39.2</td>
<td>40.1</td>
<td>47.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Regional unemployment rate</td>
<td>8.0</td>
<td>8.0</td>
<td>7.9</td>
<td>8.5</td>
<td>8.3</td>
</tr>
</tbody>
</table>

8 ISEI = International Socio-Economic Index of Occupational Status. This is an international system for measuring the socio-economic status of particular jobs with a range of 16 to 90 points (GANZEBOOM, DE GRAAF & TREIMANN, 1992).

9 This is an approach to evaluate how well different predictor variables can predict the categorization in more than two groups, that is, the strength of particular category-dependent variables (BISHOP, FIENBERG & HOLLAND, 2007).
### Odds-ratio: measure for chance to belong to a specified category of the dependent variable. A value of 1 means "no effect," values > 1 mean a higher chance compared to the reference category, values < 1 represent a lower chance.

<table>
<thead>
<tr>
<th></th>
<th>Job-preparation program then VET Exp (B)10</th>
<th>More school then VET Exp (B)</th>
<th>Continuing school to qualify for higher education Exp (B)</th>
<th>Precarious paths including unemployment Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better school assessment marks</td>
<td>0.651</td>
<td>1.372</td>
<td>1.031</td>
<td>0.862</td>
</tr>
<tr>
<td>(Ref.: bad assessment marks)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absenteeism (Ref.: no absenteeism)</td>
<td>2.182*</td>
<td>1.565</td>
<td>1.324</td>
<td>2.405**</td>
</tr>
<tr>
<td>Grade-level repetition (Ref.: no</td>
<td>1.234</td>
<td>0.631*</td>
<td>0.423**</td>
<td>1.462</td>
</tr>
<tr>
<td>repetition)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unclear job orientation (Ref.:</td>
<td>3.192**</td>
<td>1.053</td>
<td>1.448</td>
<td>4.543**</td>
</tr>
<tr>
<td>clear orientation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 3 personal problems (Ref.: ≤ 3</td>
<td>1.031</td>
<td>1.085</td>
<td>0.820</td>
<td>2.022*</td>
</tr>
<tr>
<td>Problems)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls (Ref.: Boys)</td>
<td>1.198</td>
<td>1.200</td>
<td>1.509</td>
<td>1.616*</td>
</tr>
<tr>
<td>Migration background (Ref.: no</td>
<td>2.085**</td>
<td>1.921**</td>
<td>2.341**</td>
<td>2.212**</td>
</tr>
<tr>
<td>migration background)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-parent household (Ref.:</td>
<td>1.364</td>
<td>1.030</td>
<td>1.207</td>
<td>0.993</td>
</tr>
<tr>
<td>not single-parent household)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment of parents (Ref.:</td>
<td>0.860</td>
<td>1.481</td>
<td>0.986</td>
<td>2.685*</td>
</tr>
<tr>
<td>parents not unemployed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social status ISEI</td>
<td>0.997</td>
<td>1.006</td>
<td>1.043**</td>
<td>0.994</td>
</tr>
<tr>
<td>Regional unemployment</td>
<td>1.024</td>
<td>0.993</td>
<td>1.015</td>
<td>1.021</td>
</tr>
<tr>
<td>Constants (b₀)</td>
<td>-1.323</td>
<td>-0.664</td>
<td>-3.501</td>
<td>-1.830</td>
</tr>
<tr>
<td>n</td>
<td>127</td>
<td>215</td>
<td>69</td>
<td>124</td>
</tr>
</tbody>
</table>

10 Odds-ratio: measure for chance to belong to a specified category of the dependent variable. A value of 1 means "no effect," values > 1 mean a higher chance compared to the reference category, values < 1 represent a lower chance.
While school assessment marks in the last obligatory school year do not indicate any significant effects, absenteeism especially increases the probability of precarious paths of unemployment, and grade-level repetition decreases the likelihood of continuing with school (continuing with school before VET or to qualify for higher education). If a young person has an unclear job orientation at the end of the 9th grade, he or she is more likely to take the intermediate step of participating in a job-preparation program before starting with VET or to take the more precarious path of remaining unemployed. Young people who have the stress of dealing with more than three individual problems are more likely to take a precarious path. Girls also have a slightly higher risk of taking the more problematic paths. In comparison with the category "direct start with training," youth with migration background are over-represented in the other four types of transition processes. One's family background is also significant: youth whose parents are unemployed are more likely to take a problematic path, and youth whose parents have a high social status are more likely to continue school to qualify for higher education. Regional unemployment does not show any significant effect in this model. [12]

The regression model tests a series of "hard" factors influencing transition processes, identifying, for instance, groups of youth with a higher risk of pursuing more precarious transition paths. Expressed abstractly, the classical quantitative paradigm can depict which independent variables correlate with a specific dependent variable as well as the strength and direction of this correlation. Quantitative analyses generally give information about the aggregate level of a study's sampled subjects, and individual assessments are rather rare. However, individual analyses are possible and can more vividly illustrate aggregate-level findings. In the following section, I will show the case study of Omar, a young man from a migrant family; he first participated in job-preparation programs before he began with his VET and is a typical representative of this category. In this cluster, young men and youth with migration background are over-represented. The representatives of this transition pattern have worse 

Table 3: Multinomial logistic regression for process types (Reference category: direct start with training) [11]
assessment marks, repeat grade-levels, have insecure job plans and have parents with a low social status. These characteristics also apply to Omar. Criteria which do not apply to Omar are absenteeism, having multiple individual problems, growing up with a single-parent or parents’ unemployment. [13]

2.2 Individual case study from a quantitative perspective

When the first basic questionnaire interviews take place, Omar is 16 years old and lives with his parents and three sisters in a city with about 100,000 residents in Baden-Wuerttemberg. Both of his parents were born in Turkey, but he was born in Germany. Omar is a citizen of both Germany and Turkey. At home, his family speaks German and Turkish. Omar’s father works full-time as a bookbinder, and his mother is a housewife. His family is not dependent upon financial aid from the state, such as welfare. His family is also not very active in "higher cultural activities" [12]. [14]

At the time of the first interview, Omar is in the 9th grade in a Hauptschule. During his time in school, he had repeated one grade-level. His assessment marks in the 9th grade are rather low: a “4” in German as well as in mathematics (1 is the best, 6 is the lowest). Omar reports that he does not skip classes at school. His family rarely helps him with his homework. Omar describes his relationship with teachers and other pupils as good and generally likes going to school. His job plans for the future are unclear. By the middle of this last obligatory school year, he still does not know what kind of job he wants to pursue. He was able to name a possible but still unsure job direction (mechatronic technician), but he is not sure if he would be accepted to a VET program, and he still has not sent out any applications for a spot in one. He anticipates that after the 9th grade, he will visit a job-preparation program. The fact that he still does not know which job path he should take, is the only personal problem he names. [15]

Omar ends the Hauptschule with a basic Hauptschule-degree in June 2004. After school holidays he begins in September 2004 with a job-preparation year, which he completes successfully. Immediately after, he works for about four months in a bookbinding shop, and by November 2005 he begins with a second job-preparation program, and completes an internship in an automotive repair shop [KFZ-Werkstatt]. In this same company Omar can then start in September 2006 with VET to become an automotive mechatronic technician [KFZ-Mechatroniker]. After three and a half years he successfully completes his VET at the beginning of 2010. Afterwards he is unemployed for more than half a year until he is able to find a job in October 2010 through a temporary job agency. After three months Omar starts with his first permanent contract position in January 2011. The diagram below (Illustration 1) charts the stations in Omar’s transition path as a timeline. The quantitative data used to create this line are summarized in the Appendix.

---

12 This refers to the parents’ low level of "high cultural" activity, such as regular reading of the newspaper, interest in politics, or visits to concerts, art exhibitions or museums.
This kind of individual case study perspective based on quantitative data can help give life to the general findings. It shows a prototypical transition process in the type "job-preparation then VET" and offers an illustration or exemplification of a person in this category. However, this kind of representation only gives a description of this transition process; it is not possible to explain why and how Omar took this path. Standardized questionnaires, which are the main data source of the DJI-Transition Panel Study, give only limited information to help answer questions regarding individual, biographical causalities and regarding one's subjective perspective on how all of this fits together meaningfully. For this, qualitative data are necessary.

3. Transitions from School to Work from a Qualitative Perspective

A qualitative project was developed to complement the quantitative data and analysis strategies of the DJI-Transition Panel Study. In order to answer the open questions, I needed the kind of biographical information which can be generated through qualitative, narrative interviews. The objective of the study was to more closely examine young people's subjective view of their transition processes. In early 2011, fifty-six young adults were selected from the DJI-Transition Panel Study for additional qualitative telephone interviews, which were mainly narrative in structure. The problem-centered interview is a mixed form of interview that brings biographical, narrative-generating interview-techniques together with more clearly structured, guided interview-techniques (FRIEBERTSHÄUSER, LANGER & PRENGEL, 2010; HOPF, 2000; WITZEL & REITER, 2012). The interviews focused on the "internal perspective" of young people on their own transition processes, their subjective experience, their view of it, their attitudes, evaluations and actions (GAUPP, 2013).

I will now once again present the case study of Omar, but this time from a qualitative perspective instead of a quantitative one. New information based on the qualitative data complements existing information generated from the quantitative data (which is underlined). The new narrative will also name (in parentheses) relevant dimensions of individual experience which will be described further in Section 3.2 (proactive organization of transition vs. reacting to coincidence, level of motivation, biographical events, social interaction).
3.1 Individual case study from a qualitative perspective

After Omar visited the Hauptschule, he began in the following autumn with a Job-Preparation Year (BVJ). At first, he is only somewhat motivated (low motivation). After a reprimand from his teacher and a threat that he would have to leave the BVJ (social interaction), Omar pulls himself together and ends his BVJ in the regular time period. After this, he is still unsure how he should proceed. He does not apply for VET, but rather tries out a few summer jobs, for instance in his father's company, a printing shop. Soon his father pressures him that he should not work long-term as an unskilled worker and should attempt to attain a spot in a VET (social interaction). An old acquaintance gives him the idea to apply for a job-preparation training (BvB) offered by the employment agency, since the acquaintance had found his VET in this way (social interaction). Although Omar was not motivated to participate in another job-preparation program (low motivation), he visits the BvB-program with the goal of gaining a VET through one of the required internships. In the context of the BvB Omar does an internship in an automotive repair shop; he found this automotive repair shop by accident (coincidence). The automotive repair shop at which he actually wanted to work did not exist anymore, but there was another one close by on the same street, and he spontaneously decides to introduce himself. He is able to start with the internship the very next day. Omar stays there as an intern for several months, even though the internship was originally supposed only to last a few weeks. The boss is satisfied with Omar, and at the end of the BvB-program he offers him a VET contract (social interaction). Omar begins his VET to become an automotive mechatronic technician and successfully ends it in three-and-a-half years. The theoretical classes are difficult for Omar, and he has to work very hard to keep up\textsuperscript{13}: "In the training, I have to say that it was pretty difficult for a Hauptschule-student like me" (A: 170\textsuperscript{14}). Especially during the second training year he has difficulties with his classes. At the end of the first training year Omar injures a ligament in his knee while playing soccer (biographical event). Despite very intense pain, he puts off an operation until the work-level in the repair shop has calmed down, and there is less work to do. After the operation, at the beginning of the second training year, Omar misses seven weeks in the repair shop and in his classes, where he misses a great deal of information. After the injury, Omar begins to identify himself more positively as an employed person and stops playing soccer, even though this had meant a lot to him for many years. "And then I said, no, no, no more soccer ... until I have finished my training ... I can do it later. But now I am—already—even older, and now I say (...) concentrate more on your job!" (A: 306). Starting with the third training year it becomes easier for Omar, and he is able to successfully complete his final exam. He is proud and satisfied to have become a trained automotive mechatronic technician:

"Yes ... After finishing the training, you are really happy. I am definitely happy. I mean, I was really not a good student. I really did not like school anyway ... and then I was trained as an automotive mechatronic technician and made it: I was really so happy.

\textsuperscript{13} Omar emphasized his view of himself as a low-performance Hauptschule-student several times during the interview.

\textsuperscript{14} The interviews were conducted in German and partially translated into English for this article.
With this, I accomplished a big part of my life, I have to say. That was really great” (A: 134). [20]

Omar compares himself with his younger brother. Of the four brothers, only the youngest one went to the Realschule; both of the other older brothers went to the Hauptschule, as he did. Even though his youngest brother has a higher-level school education than Omar, the younger brother works as an unskilled worker in the area of heating technology:

"And he, even though he did well in the Realschule and all that, he is a lazy dog! I mean, honestly, he doesn't look for anything, he doesn't do anything, and—he is doing something now, but in the end he didn't end up as anything better than what I got to be! Even though he went to a good school!” (A: 120) [21]

At the end of his VET, the company where he was trained cannot take him on as a long-term employee due to financial difficulties. Immediately after his VET is finished, he registers himself as unemployed (which means he receives unemployment money, but also has to regularly show that he is searching for employment). However, with his parents' consent, he allows himself a break for a few months. Omar is then unemployed for about 8 months, which subjectively seems like a long time to him. During this time Omar does not look for work (low motivation). In hindsight, Omar criticizes his attitude: "But I was someone who said, 'No, I'm going to take a break! I don't want to find anything right now! " (A: 148) For several months the employment agency lets him get away with not actively looking for a job. But then his unemployment counselor draws the line (social interaction): he cuts part of his unemployment money for three months. Omar comes into conflict with the employment agency. He is supposed to attend a training for applying and interviewing for a job, but he refuses. His counselor threatens Omar that he will completely cut his unemployment money if Omar does not attend this training. In order to avoid being officially cut off by the employment agency, he deregisters his unemployment status. Looking back Omar has a positive view of his unemployment counselor. Even though he noticed that Omar did not want to work and had not been applying for jobs, he repeatedly tolerated this and let Omar continue to receive unemployment benefits. Omar found it acceptable that his counselor was strict with him in the end:

"At some point he was going to have to draw the line! And that is something I totally understand. I mean, that guy was all right! He was really nice to me. I mean, he actually spoke to me like a father talks to his son... He was totally fair. I was just a lazy dog” (A: 166-168). [22]

In the following week Omar does some thinking about how he is going to make it in the future without money. He remembers that at one of the appointments at the employment agency, he had received a list of addresses of temporary job agencies. At first Omar rejects the idea of working in temporary employment: “I mean that I was a bit arro-, I don't mean arrogant, but I mean, I was someone who said, 'No, I'm not going to work for a shitty, excuse me, for a temporary job agency!'” (A: 150) However, Omar does indeed contact four temporary job
agencies (proactive organization of transition). One of the agencies offers him work the very next day, placing him in an automotive repair shop. Omar is very nervous on his first day at work. He works hard to prove himself (high motivation), and soon thereafter, his boss offers him a permanent position, which he happily accepts (social interaction). He had already been searching for a permanent position, because he was concerned that the temporary job agency would only send him to short-term jobs in different companies in different cities. His supervisor takes responsibility for canceling Omar's registration at the temporary job agency: "He just called him with his cell phone and said, 'That Omar, he's staying with us" (A:60). Since the beginning of 2011 Omar has a permanent contract with the automotive repair shop, he has successfully completed his probation period. Although he perceives the work there as challenging and strenuous, he is very satisfied with his situation. He receives support in developing his skills, he is allowed to attend further training classes, and he feels that he is well-treated and appreciated by his supervisors. [23]

When reconstructing Omar's transition process in this way, the development paths and the causal relationships in his individual biography become visible. In this interview one can observe four main dimensions of experience which are important factors in Omar's transition biography: level of motivation, proactiveness vs. reactivity, critical biographical events, and social interaction. Additional analyses of all the interviews in this qualitative study, already existing research findings and previous theoretical considerations, served to confirm, concretize and further develop the categorization of these dimensions of experience. As empirically-founded dimensions, they connect the individual case with the general, theoretical level (KELLE & KLUGE, 2010). On the following pages, I present these four dimensions of experience, not only as they are depicted in Omar's case study, but also as they are situated in the context of all of the qualitative empirical data and in a wider, theoretical context. [24]

3.2 Central dimensions in the transition from school to work

3.2.1 The development of transition biographies: Result of proactive organization or of opportunities and coincidences?

A first important issue is presented by the question, if and to which degree, young adults make goal-oriented and focused plans and proactively organize the transition phase of their biography—and respectively—if, and to which degree, their orientations are influenced by external conditions, such that their transition phase is a result of spatial, legal, and time-specific opportunities and coincidences. Omar tends to show more reactive strategies, waiting for something to happen. He does not talk very much about his own applications and job-search activities. When describing situations where it is unclear how he should proceed with his career (for instance, after the job-preparation year or while he was unemployed after his VET), he hardly mentions having given thought to his future employment and what he could do. Instead, his transition biography appears to be the result of the external conditions and opportunities he is confronted with. Other people make demands of him, and he reacts. For
instance, although Omar himself found the company where he did his internship and then his formal VET, he had only searched for such a place because it was required of him by his job-preparation program. He, himself, had procrastinated looking for an internship, but one of his teachers clearly pressured him to do so: "He said to me, 'Go immediately and look for a job!'" (A: 198) Also, while he was unemployed for several months, Omar did not actively look for work. Instead, he reacted to demands made by the employment agency: "They always write a note every 1 ½ months that I have to come by" (A. 126). Omar assumes that without the pressure from the employment agency, he would not have made the effort to look for employment. [25]

When I consider the material from all interview partners, it becomes clear that there can be dramatic differences in how much young adults' transition biographies are the result of either their reactions to external conditions or of their active organization of their path. One can imagine these differences on a spectrum with two poles. The empirical material supports the idea of a continuum, whereby both aspects may be differently weighed or combined and even present at the same time. A young adult is considered "proactive" when he/she is pursuing school and employment goals, making his/her own decisions, and trying to turn them into reality. This person is an agent of his/her transition phase. RUDD and EVANS (1998, p.40) refer to the image of a "planning office for one's own biography." The contrasting pole is that of a reactive strategy, waiting for something to happen and making decisions based on external conditions and reactions to demands. These external factors may be relatively stable in time, such as structural conditions of the education system, or relatively variable in time, for instance, the result of coincidences and luck (RUDD & EVANS, 1998). A reactive strategy makes someone more into an object of his/her transition phase, rather than the subject of it: decisions in his/her (professional) biography just "happen." A fitting metaphor is that of the ball in a pinball machine, always falling to one position and being pushed to the next one. Another image is that of lost wreckage floating at sea: life flows by, and when something fitting passes by, one grabs it (STAUBER et al., 2007, p.7, my translation). [26]

These theoretical considerations may be analyzed in connection with the concept of agency, an established approach of subject-oriented transition research (STAUBER et al., 2007; for a current theoretical overview, see RAITHELHUBER, 2011).

"Agency is often seen as the central moment that explains that humans' actions and lives are not completely determined by social structures or societal institutions. The concept of agency is associated with the idea that individuals actively contribute to how their biographies or their life courses develop." (p.9, my translation) [27]

From this perspective, individuals become the designers of their own biographies, making decisions and life plans within the contextual conditions and constraints in their environment. [28]
3.2.2 Motivation curves

Omar repeatedly experiences ups and downs in motivation. This is the second important dimension of experience: the changes in young adults' level of motivation and how these influence one's transition biography. This is especially apparent in two episodes in Omar's biography: during the school-part of his VET and during his unemployment phase after his VET was over. In his first year of VET, Omar does not have many problems with the theoretical part of his training: "In the first year I really didn't have any problems. I had very good grades" (A: 174). During his second year, he stops working as hard, and his grades suffer: "Then it started in the second year of VET, that I ... honestly I started to take it easy a little ..." (A: 174). In the third year Omar starts to work hard again: "... in the third year, like I said, I pulled myself together again" (A: 176). When Omar looks back at this time, he is happy that he worked hard and did not give up: "But somehow I managed to pull myself together for three and a half years, and I made it" (A: 136). At the end of his VET, Omar is not kept on as an employee in the same company, and he does not feel motivated to work. He is happy about his successful VET certification and allows himself to take a break: "... honestly, after my VET, I didn't want to work-, I mean, I really did not have to be unemployed for so long!" (A: 130) Omar files for unemployment, but does not look for a job. Later he regrets his decision and begins to worry about what he was going to do without unemployment money. He is forced to become more motivated to look for a job and applies at several temporary employment agencies: "Then I took out the old list, and I said to myself, OK, now work your way through that list. That's what happened" (A: 130). [29]

In most interviews there are obvious differences in how motivated these young people are. There are some cases in which the young adults name clear educational and training-oriented goals (for instance, a particular school degree, a particular training program, or employment in a particular field) and attempt to achieve these goals. The young adults also discuss phases marked by demotivating experiences and apparently lacking perspectives, when they can hardly motivate themselves to act. Usually, motivation is not constant over time, but rather changes, often repeatedly, over time during one's transition phase. [30]

The observed changes in motivation are very similar to what STAUBER et al. (2007) describe as motivation careers (see also DU BOIS-REYMOND & STAUBER, 2005). This concept builds upon BLOOMER' and HODKINSON's (2000) learning careers and assumes that everyone goes through motivation careers throughout his/her life and also during any specific biographical phase. Motivation is influenced by two time perspectives: one's view of past experiences and one's expectations of the future. For young people in their transition from school to employment, not only are their experiences during this transition process thus far important, but so are also their factual and expected chances about the vocational training and labor market. With regard to their expectations for the future, their level of motivation depends on whether or not they see subjectively important and attractive goals for themselves and whether or not they are convinced that they can reach these goals on their own (compare the concept
3.2.3 Critical biographical events

Many young people describe dramatic biographical events, which significantly influence their transition biography, changing it or giving it a new direction. Omar's sport injury presents him with an important turning point. He does not have his operation immediately, though, putting it off until there is less work to do in the repair shop.

"But I was, I was that kind of person, I really tried to find a way to fit what my boss needed. I told him, 'I have an injured ligament.' But I said, 'Since there is so much going on right now, let's just say that I won't get my operation until there is less going on.' Then I stayed and worked until September! Till the beginning of the second training year! I kept working with my injured ligament. I mean... then I noticed, OK, now there isn't much going on, no work, then I went to the office and said, 'Boss, OK, now I've held out so long...'. Then he said, 'Hey, no problem, go get it operated'..." (A: 304). [32]

This quote shows how important it is to Omar to show his boss that he is a good worker. He emphasizes that the seven lost weeks after the operation were actually a very short time, considering how grave his injury was. Omar's attitude toward work also changes, leading to a decisive turn in how he pursued his VET. He stops playing soccer, even though it had meant very much to him over many years, "because soccer is really my life..." (A: 304). However, he does not want to risk injuring himself again, since his health is an important resource for his work. He prioritizes the demands of his job above his private interests. "And then I said, no, no more soccer... and now I say, ... concentrate on working!" (A: 306)

Due to this injury, Omar shifts his priorities to that of a "worker mentality." [33]

Beyond the case of Omar, the interviews more generally are full of narratives describing critical and decisively life-changing biographical events in different aspects of youth's life. Especially common events reported by these young people included moving out of their parents' house, to different apartments or towns (often leading to changes in social network), psychological and physical illnesses and crises, injuries and accidents, pregnancy and birth of a child, the death of a loved one, or straining and traumatic events in their family (for instance, domestic violence or parents' separation). [34]
Biographical events can be analyzed from different theoretical perspectives. A sociological approach offers the concept of **critical moments** from THOMSON et al. (2002). Some older, similar approaches can be seen in MANDELBAUM’s (1973) concept of **turning points** (cited in ABBOTT, 1997) or in HUMPHREY’s (1993) discussion of **career breaks**. From a psychological perspective one can find the concept of critical life events by FILIPP (1990; FILIPP & AYMANNS, 2010). **Critical moments** are seen as key moments or events in the life courses of young people, with real consequences for their biography, but also for their identity. It is important to consider if, and to which degree, **critical moments** are subject to young people’s control. This needs to be examined on two levels: how much control a person has 1) over the event itself and 2) over the results of the events. For instance, a desired change of workplace is a controllable event, but being fired from work is not. An example for an active reaction to such an event would be to search for a new job, and a passive reaction would be to tolerate the condition of being unemployed. THOMSON et al. (2002) stress that the social and economic environment frames **critical moments**; a young person’s reaction to these events is strongly influenced by his/her social context (e.g. social networks), the structural environment (e.g. opportunities in the educational- and training systems) and economic conditions (e.g. his/her town or more generally the economic situation in the society). Also important are the personal and cultural resources that young people can access and use. [35]

3.2.4 The significance of social interaction

During their transition phase, young people are not alone; they are part of diverse social networks including family, friends, and those in their educational or work context. These people can have very different functions in these young people’s lives, and in many instances, they have an impact on young people’s transition paths. Omar describes many experiences in which other people motivated him to pursue a job, as well as the experience with one supervisor who gave him the opportunity to begin a VET. A teacher threatens Omar that he would be removed from the job-preparation program if he does not show more motivation; then Omar works harder in order to end the year with the other participants: “but at some point the teacher said, ‘You keep on acting like this and you are out of here... ’ And then I actually pulled myself together” (A: 262). His father also pushes him to look for a VET, so that he will not remain an unskilled worker for the rest of his life. Omar does not look for an internship until his counselor from the job-preparation training pressures him to do so: "I was, of course, a lazy dog back then, didn't look for anything. Then he took the telephone book and kind-of pushed it at me and said, 'Now you sit there and look!' " (A: 198) Omar's boss during his internship in the automotive repair shop is so satisfied with him that he offers him an official apprenticeship: "So I did really well there, and he saw it, and he said, 'OK, you can start your VET ..." (A: 220). When Omar does not get a job at his place of apprenticeship and becomes unemployed, he does not search for a job until his unemployment counselor pressures him to do so. Without him, he may not have become active out of his own accord:
"He wasn't wrong about that! I was lazy! I didn't look for work, and he left me alone for a while. (...) And he kept on letting it go and letting it go, but at some point—then I thought, OK, that guy can't do anything about it, he's just doing his job when he gets a little tough on me ... But what does 'tough' mean—he just, I mean, I was unemployed for eight months! In those eight months, I got money for four months! Without applying for any job, without looking for any work ... and—yeah, he ki-, OK, at some point he had to draw the line and do something about it!" (A: 166) [36]

Young adults meet many different interaction partners in the course of their lives: peers, family members, teachers, other pedagogues, unemployment counselors, colleagues and supervisors in the workplace. These people play different roles in these young people’s lives. Social interactions do not only attain their meaning in and of themselves, but they become meaningful in their subjective and objective consequences for young people's transition paths. One helpful first function is that of the door-opener15, who supports access to educational and training institutions, thus opening up job opportunities for the young person. People can be motivators when they, for instance, encourage someone to pursue a particular goal, pressure someone to do something, support someone to actively search for a job, or act as a role model. Advisors are helpful when they consider the individual wishes, interests and needs of these young adults. The role of tandem partners applies to young people of the same age. Young people see themselves in similar private, educational or job situations, pursue similar goals and become active together. The fifth supportive function is that of the safe harbor. These are people who offer emotional and social support and security, and help in dealing with everyday life or financial support. Young adults do not only encounter people who help them, but also those who create hurdles in their lives. One may have a demotivating function if he/she does not believe that the young person has certain capabilities or can achieve the planned educational or training path. Just as detrimental is forcing advice on a young person while only considering one's own institutional interests and logics, without considering the young person's individual wishes. Door-closers can also make young people's transition process more difficult when they hinder their access, chances and options along the way. [37]

A theoretical concept which describes a particular meaning and function that people can have in others' biographies is that of the gatekeeper (compare e.g. BEHRENS & RABE-KLEBERG, 1992; GEISSLER & KRÜGER, 1993; HEINZ, 1992; STAUBER & WALTHER, 2006; STONE, 1992). This concept is particularly helpful for understanding status passages in one's biography, such as transitions from one social position to another (compare GLASER & STRAUSS, 1971). Gatekeepers function like doormen with regard to access to particular positions. They steer, regulate, monitor, limit and permit access and are the connecting point between individuals and institutions. Traditionally gatekeepers are understood as representatives of institutions (e.g. counselors at information centers, representatives of the employment agency, personnel officers of a company, etc.), and their actions are not oriented towards the needs of the individual, but rather the interests of their own institutions. According to these

15 The labels of functions (such as “door-opener,” “safe harbor,” etc.) are an abstraction of the role of people for the course of the transition process and are results of the analyses.
interests, they steer the person into particular paths or positions. One point that is rarely considered in this literature is that sometimes there are potential gatekeepers in one’s own personal network, such as family members and peers. BEHRENS and RABE-KLEBERG (2000) extend the possible circle of potential gatekeepers to one’s informal social network, but also expand the theoretical discussion to include informal situations. They show that family and friends are not only important for status passages of one’s educational and employment biography, but also for status passages in their private life. BEHRENS and RABE-KLEBERG describe not only gatekeepers’ steering or selecting function, but also their function in providing young adults with the kind of help that they need to surmount this status passage. [38]

3.3 An integrated model of transition processes

The analyses identify not only central dimensions for transition processes, but also clear connections and relationships between these dimensions. For instance, social interaction and biographical events may influence young people’s motivation level, and a high motivation is beneficial for proactively organizing one’s life. For this reason the relationships between these four dimensions were more thoroughly analyzed and summarized in an integrated model (compare Illustration 2). That is, the result of this study is a generalized conceptualization for transition phases in the form of a model. The empirical basis for this stems primarily from the qualitative interviews. I also integrate knowledge from the current state of this research as well as from the DJI-Transition Panel's quantitative analyses (for instance, on the impact of regional contexts and conditions on the training and employment market). [39]

The model depicts transitions as single steps in transition biographies (see transition in ELDER, 1998) and less as a whole transition process consisting of a series of transition steps (see trajectory in ELDER, 1998). This depiction helps us focus more clearly on the analysis of one particular status change. While I use the term transition, I include not only transitions which do take place (such as beginning or ending school, an internship or a VET), but also those transitions which do not take place (e.g. when one does not enter into an employment relationship). The arrows in the illustration indicate a particular time sequence and direction of influence, but these steps need not necessarily occur in this linear order; feedbacks and loops are also possible.
There are diverse relationships between the four dimensions motivation, proactiveness vs. reactiveness, biographical events and social interactions. For instance, one's level of motivation may be dependent upon previous experiences as well as expectations for the future. Critical biographical events during the transition period may have a motivating or demotivating function. The function of a young person's expectations for the future depends upon whether or not he/she has subjectively desirable goals and if that person believes he/she can achieve these goals on his/her own. One's level of motivation does not just correlate with one's own tendency to be proactive in organizing his/her transition process; a high level of motivation is a (pre-)condition for actively pursuing employment opportunities.

Critical biographical events may have an impact at different levels. Crises such as accidents, psychological or psychosomatic illnesses may have a direct influence on the transition process if they, for instance, make it impossible to continue one's job or VET. The same thing applies to pregnancy, the birth of a child, and the associated difficulties to reconcile parenthood with training or employment demands. Detours may also take place in the progression of a young person's transition biography if he or she moves to a new apartment or town, or is confronted with other critical events which may dramatically change social network or relationships, such as the death of a loved one, parents’ separation, or a new romantic relationship.

The socio-structural context (for instance, the state of the vocational training and labor market or the availability of educational institutions in the area) can influence one's level of motivation, his/her proactive organization of the transition process and—as opportunity structures—the transitions themselves.

Interactions with other people may be connected to many aspects of the transition process. There is an important relationship between social interaction
and motivation, since interaction partners may motivate or de-motivate young people. They can support young people in their ability to actively shape their transitions if they advise and inform them appropriately (advisors), become active together with them (tandem partner), or offer them emotional and social security (safe harbor). These people in one's life may have more direct influence on transitions if they can provide or hinder contacts and access, for instance to schools, training institutions or companies (door-openers and door-closers, respectively). Functions that are generally supportive are marked in grey in the model, those that are more generally hindering are marked in black. [44]

The model illustrates the complex development conditions for transitions, based on the interaction between many factors. Aside from those factors, which I analyzed in this study, there are also other factors which have been examined in transition research. Depending upon the theoretical perspective, this literature may name individual resources, abilities and capital forms (social, cultural and economic capital, physical and emotional health, aspects of one's self-image, preferences, values, optimism vs. pessimism, etc.). Also influential are the different educational opportunities and institutions available in a particular transition system, that is, which degrees, qualifications, certifications, and continuing education opportunities are available in that region. Finally, sex and migration background as well as other dimensions of social inequality also have an impact on transition processes of young people. [45]

In order to critically evaluate this model and place it in the context of existing research findings, I compared it with existing qualitative transition models. The model shows clear similarities and overlaps with other theoretical models, such as Glen ELDER's (1998, 2007) life-course perspective, REITER's (2010) model for analyzing biographical uncertainty, and FURLONG and CARTMEL's (2003) model for explaining transitions through individualized rationality. These models also emphasize that transitions or status passages are dependent not only upon individual factors, but also upon social and structural factors. At the individual level, resources and opportunities, as well as past experiences and expectations of the future, are very influential. At the social level, people with whom one has contact are relevant. At the structural level, the societal, economic and institutional contexts frame the conditions for these transitions. The similarities of the model with pre-existing models on transition phases are a clear indication that the new model is more generally applicable to transitions. [46]

4. Conclusion

What kind of conclusions with regard to contents can be drawn from these two methodological approaches for studying transitions from school to work? Examining the standardized quantitative data using a sequence pattern analysis, I was able to identify and quantify five patterns or types of transition paths of young adults. These five patterns are: 1. the direct start with a VET, 2. continuing school before beginning a VET, 3. participating in a job-preparation program before beginning a VET, 4. continuing school with the goal of entering higher education, and 5. insecure paths in unemployment. One can predict the
probability that a particular young person will take a specific path by examining which individual, social and structural characteristics apply to those people who have taken the respective transition paths, in combination with a regression model to test these factors' statistical relevance. For instance, the probability that a person will take a problematic path is higher if he/she had low assessment marks and skipped classes at school, and if he/she has unclear plans for a future job, many individual personal problems, or parents who are unemployed, or if he/she comes from a migrant family. With the qualitative analysis, I could identify four main dimensions of experience which are relevant to the transition process, and by developing the qualitative model, it is possible to illustrate the relationships among these dimensions. The concept of agency describes if, and to which degree, young adults actively shape their transition biographies, or if their transition biographies are primarily the result of external opportunities and coincidences. One’s level of motivation and the changes in one’s motivation level have an impact on transition biographies, since they are a precondition for proactive engagement in shaping this transition. Critical biographical events steer transition paths by forcing them to shift the direction or even provoking a completely new direction. Social interaction with people in one's family, circle of friends, as well as in educational or employment contexts, can have an impact on transition paths in many ways, by motivating or demotivating that young person or by enabling or obstructing that young person’s access to education or training. [47]

Which conclusions can be drawn from the way I developed my research for connecting both qualitative and quantitative methodological approaches? The research process proceeded according to a logic similar to that of ERZBERGER and KELLE (2003)'s complementarity model for qualitative and quantitative methods. The latter differentiates between the level of theoretical assumptions and empirical observations, and discusses how these can be connected using deduction or induction in the context of mixed-method studies. ERZBERGER and KELLE describe the relationship between qualitative and quantitative methods in three models: convergence, complementarity, and divergence. It is their complementarity model which is relevant for this study. Based upon theoretical considerations and existing knowledge concerning the transition from school to employment, the first empirical step was to conceptualize a quantitative panel study. By identifying and testing statistical relationships between variables, the model shows significant correlations between particular individual, social and structural variables and different types of transition patterns of young adults. However, there were still many questions this paradigm could not answer, especially concerning young people’s subjective attitudes, intentions and experiences and the relevance of these for their transition processes. For this reason, I developed an additional study using qualitative interviews with young people, who were selected from among the participants of the quantitative panel study. By reconstructing individual causality and meaning relationships, the interviews produced insights concerning the significance of an individual’s experiences: level of motivation, social interaction, biographical events, and agency. As a final step, I developed an integrated model of transition processes to depict the relationships between these findings and to integrate them on a theoretical level. [48]
From the perspective of the complementary model (ERZBERGER & KELLE, 2003), the theoretical conceptualization of a quantitative study is a first deductive step. Because these quantitative data can only offer limited evidence and leave open some questions on the theoretical level, it was necessary to develop the theoretical considerations on further aspects of this topic (inductive step). These considerations were the initial or starting point for the consequent qualitative empirical study (deductive step). The qualitative data then served to evaluate the second theoretical assumptions (inductive step). Ideally, the theoretical considerations in both steps can be connected by their respective empirical sources. Due to the complementary relationship between the qualitative and quantitative data, the different methods address different aspects of the same social phenomenon; together they present a more complete perspective of the object of study than one method alone could:

"The crucial function of method integration performed for the purpose of complementary results, is to provide additional empirical material in an empirical research domain where one single method is insufficient for the investigation of the full empirical basis of a theoretical assumption" (ERZBERGER & KELLE, 2003, p.483). [49]

In this case, both partial studies share a common logic and focus. The primarily qualitatively generated model and the quantitative regression analysis both aim to identify and understand relationships between some specified factors and transition paths from school to employment. Further research could integrate both models to test the statistical significance of the four qualitatively identified dimensions within a new empirical study by using these dimensions as pre-indicators for transitions in a regression model. In the framework of this study, however, it was not possible to take this next step to "apply" the qualitative model to a new, quantitative model. [50]

Appendix

Selected quantitative data on the case of Omar:

Family situation

- Lives in a town with approx. 100,000 residents in Baden-Wuerttemberg
- Three siblings
- 2nd generation migrant (born in Germany, both parents born in Turkey)
- German and Turkish citizenship
- Languages spoken at home: German and Turkish
- His father works full-time as a bookbinder, his mother is a housewife
- The family is not dependent on financial welfare from the state
- Parents have little contact with "high cultural" activities
- Few personal problems
School biography

- At the beginning of the study, he was in the 9th grade in a *Hauptschule*
- Repeats one grade-level in during his school career
- Assessment marks: "4" in German and in Math ("1" is the highest, "6" is the lowest)
- Seldom receives help from his parents to complete his homework
- Does not skip classes in school
- Good relationship with teachers and other pupils
- Ends the *Hauptschule* with a basic *Hauptschule*-degree

Career plans while in his last school year

- Unclear job perspective: unsure that he will find a spot in a training program after completing school; (vacillating) job idea is to become a mechatronic technician; at time of the first questionnaire, he has not yet applied for VET
- Plans to attend a job-preparation program after the 9th grade

Transition path after completion of school

- June 2004: Completes the *Hauptschule*
- July 2004 – August 2004: School holidays
- September 2004 – June 2005: Attends a job-preparation program
- July 2005 – October 2005: Job as bookbinder
- November 2005 – August 2006: Attends a job-preparation training program with an integrated internship, interns in an automotive repair shop
- September 2006 – January 2010: In the same place where he interned, he receives an apprenticeship as an automotive mechatronic technician
- February 2010 – September 2010: Unemployment
- October 2010 – December 2010: Finds employment through a temporary job agency
- January 2011: Gains employment with a permanent contract

References


Du Bois-Reymond, Manuela & Stauber, Barbara (2005). Biographical turning points in young people's transitions to work across Europe. In Helena Helve & Gunilla Holm (Eds.), *Contemporary youth research: Local expressions and global connections* (pp. 63-75). Aldershot: Ashgate.


© 2013 FQS http://www.qualitative-research.net/


Hopf, Christel (2000). Qualitative Interviews. In Uwe Flick, Ernst von Kardorff & Ines Steinke (Eds.), Qualitative Forschung. Ein Handbuch (pp.177-182). Reinbek: Rowohlt.


Author

Dr. Nora GAUPP, researcher in the Department "Youth Transitions" at the German Youth Institute. Research focuses: transition research, job integration of young adults, educational and training biographies of educationally-disadvantaged young people, panel studies

Contact:

Dr. Nora Gaupp

Department Transitions to Work

German Youth Institute (DJI)

Nockherstr. 2

81541 Munich, Germany

Tel.: ++49 (0)89-62306324

Fax: ++49 (0)89-62306162

E-mail: gaupp@dji.de

URL: [http://www.dji.de/](http://www.dji.de/)

Citation