THE TERTIARY EFFECT OF SOCIAL CLASS

MULTILEVEL STUDIES ON THE ROLE OF THE PRIMARY SCHOOL (TEACHER) IN EDUCATIONAL DECISION-MAKING

SARAH THYS
THE TERTIARY EFFECT OF SOCIAL CLASS

Multilevel studies on the role of the primary school (teacher) in educational decision-making

SARAH THYS
GHENT UNIVERSITY

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Supervisor: Prof. Dr. Mieke Van Houtte

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PHD SUPERVISOR

Prof. Dr. Mieke Van Houtte, Ghent University, Belgium

DOCTORAL EXAM COMMITTEE

Prof. Dr. Lesley Hustinx
Ghent University, Belgium

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Universitat Autònoma de Barcelona, Spain

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Prof. Dr. Henk Roose
Ghent University, Belgium
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# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of publications and manuscripts</td>
<td>xi</td>
</tr>
<tr>
<td>List of figures</td>
<td>xiii</td>
</tr>
<tr>
<td>List of tables</td>
<td>xv</td>
</tr>
<tr>
<td>1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2 Theoretical framework</td>
<td>7</td>
</tr>
<tr>
<td>2.1 Inequality in educational decision-making</td>
<td>7</td>
</tr>
<tr>
<td>2.1.1 Introducing the secondary effect</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2 Explanations for the secondary effect</td>
<td>9</td>
</tr>
<tr>
<td>2.2 The role of the teacher in educational decision-making</td>
<td>22</td>
</tr>
<tr>
<td>2.2.1 Introducing the tertiary effect</td>
<td>22</td>
</tr>
<tr>
<td>2.2.2 Mechanisms of the tertiary effect</td>
<td>23</td>
</tr>
<tr>
<td>2.3 The role of the primary school in educational decision-making</td>
<td>32</td>
</tr>
<tr>
<td>2.3.1 School effectiveness research</td>
<td>33</td>
</tr>
<tr>
<td>2.3.2 School effects in educational decision-making</td>
<td>36</td>
</tr>
<tr>
<td>3 Research focus</td>
<td>47</td>
</tr>
<tr>
<td>3.1 Research goal</td>
<td>47</td>
</tr>
<tr>
<td>3.2 Research questions</td>
<td>49</td>
</tr>
<tr>
<td>4 The Flemish education system</td>
<td>55</td>
</tr>
<tr>
<td>5 Methodological framework</td>
<td>59</td>
</tr>
<tr>
<td>5.1 Data</td>
<td>59</td>
</tr>
<tr>
<td>5.1.1 The research project</td>
<td>59</td>
</tr>
<tr>
<td>5.1.2 Sample</td>
<td>59</td>
</tr>
<tr>
<td>5.1.3 Data collections</td>
<td>62</td>
</tr>
<tr>
<td>5.2 Variables</td>
<td>64</td>
</tr>
<tr>
<td>5.2.1 Dependent variables: Educational decision-making</td>
<td>64</td>
</tr>
<tr>
<td>5.2.2 Independent variables: Pupils’ and parents’ background characteristics</td>
<td>66</td>
</tr>
<tr>
<td>5.2.3 Independent variables: School composition and school processes</td>
<td>69</td>
</tr>
<tr>
<td>5.3 Design</td>
<td>73</td>
</tr>
</tbody>
</table>
# Table of contents

6 Empirical studies

6.1 The primary school’s ethnic composition and the culture of teacher expectations

6.1.1 Abstract

6.1.2 Introduction

6.1.3 Theoretical background

6.1.4 The Flemish education system

6.1.5 Methodology

6.1.6 Results

6.1.7 Discussion

6.2 The influence of class composition on teacher recommendations

6.2.1 Abstract

6.2.2 Introduction

6.2.3 Teacher recommendations and pupils’ social background

6.2.4 Contextual features and teachers’ recommendations

6.2.5 Study setting

6.2.6 Hypotheses

6.2.7 Methodology

6.2.8 Results

6.2.9 Discussion

6.3 Inequality in teacher recommendations and the school as learning context

6.3.1 Abstract

6.3.2 Introduction

6.3.3 Theoretical framework

6.3.4 Current study

6.3.5 The Flemish education system

6.3.6 Method

6.3.7 Results

6.3.8 Discussion

6.4 The dynamics of interaction between teachers and parents in educational decision-making

6.4.1 Abstract
6.4.2 Introduction 148
6.4.3 Theoretical background 151
6.4.4 Current study 153
6.4.5 The Flemish education context: policy and practice 154
6.4.6 Method 156
6.4.7 Results 162
6.4.8 Discussion 174

7 Conclusion and discussion 179
  7.1 Summary of the main findings 179
  7.2 Discussion 189
    7.2.1 Limitations and directions for future research 189
    7.2.2 Suggestions for educational policy 193

English summary 201
Nederlandstalige samenvatting 207

References 215

Appendices 250
  A1 Scale items 250
  A2 Permission document for empirical study 2 252
  A3 Review of author contributions 253
Gender and ethnic diversity at school: A quantitative study of gender differences in the relationship between ethnic diversity and interethnic friendship
[Not included]


The primary school’s ethnic composition and the culture of teacher expectations
[Section 6.1]

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[Section 6.2]


Inequality in teacher recommendations and the school as learning context
[Section 6.3]

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The dynamics of interaction between teachers and parents in educational decision-making
[Section 6.4]

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Conceptual model</td>
<td>49</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Conceptual model Study 1</td>
<td>50</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Conceptual model Study 2</td>
<td>51</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Conceptual model Study 3</td>
<td>52</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Conceptual model Study 4</td>
<td>53</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Flemish education system</td>
<td>58</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Disproportionate stratified sample</td>
<td>61</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Educational decision-making</td>
<td>65</td>
</tr>
<tr>
<td>Figure 9</td>
<td>The interaction between ability and ability composition of the classroom</td>
<td>115</td>
</tr>
<tr>
<td>Figure 10</td>
<td>The interaction between SES and attention to educational allocation</td>
<td>140</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1 Descriptive statistics: educational decision-making 66
Table 2 Descriptive statistics: pupils’ and parents’ background 68
Table 3 Descriptive statistics: school and classroom composition 70
Table 4 Descriptive statistics: school process variables 71
Table 5 Descriptive characteristics: variables under consideration in study 1 86
Table 6 Results study 1: Practical option (1) or Academic option (0) 89
Table 7 Results study 1: Undecided (1) or Academic option (0) 90
Table 8 Descriptive statistics: variables under consideration in study 2 109
Table 9 Bivariate correlations between class-level variables: Pearson correlations 110
Table 10 Results study 2: Academic (1) or Practical recommendation (0) 114
Table 11 Results study 2: Recommendation for Latin (1) or modern sciences (0) 117
Table 12 Descriptive characteristics: variables under consideration in study 3 135
Table 13 Results study 3: Academic (1) or Practical recommendation (0) 139
Table 14 Results study 3: Recommendation for Latin (1) or modern sciences (0) 142
Table 15 Description of respondents in the qualitative sample in study 4 159
Table 16 Descriptive statistics: variables under consideration in study 4 162
Table 17 Results study 4: Parents that received (1) or have not received advice (0) 173
Inequality in educational attainment is a key topic of interest for educational sociologists. After post-war educational expansion in the twentieth century, researchers have aimed at explaining the persistence of inequality in industrialized countries (Becker, 2013; Blossfeld & Shavit, 1991; Boone, 2016). The distinction made by Boudon (1974) between the primary and secondary effect of stratification is commonly used when studying the mechanisms of this persistent inequality. According to this distinction, class-based inequality in educational opportunity is due to two mechanisms: inequality in educational achievement (i.e. the primary effect) and inequality in educational choice at branching points in education, irrespective of achievement (i.e. the secondary effect). Several recent European studies provide empirical evidence for the secondary effect at the transition from primary to secondary education (Flanders, Belgium: Boone & Van Houtte, 2012; Germany: Ditton & Krüsken, 2006; Denmark: Jæger, 2009; the Netherlands: Kloosterman, Ruiter, de Graaf, & Kraaykamp, 2009; Italy: Ress & Azzolini, 2014). These studies show that pupils from lower socio-economic backgrounds are more likely to choose the less academically oriented tracks in secondary education than pupils from higher socio-economic backgrounds, irrespective of ability.

To explain inequality in educational opportunity, Boudon (1974) attached greater significance to the secondary effect than to the primary effect. Several studies have confirmed the importance of analysing choice in trying to understand educational inequality (Jackson, Erikson, Goldthorpe, & Yaish, 2007; Jackson & Jonsson, 2013; Jonsson & Mood, 2008; Ress & Azzolini, 2014). For example, a study by Breen and
colleagues (2009) suggests that a decline in social class effects at the transition to secondary education is an important mechanism for decreasing overall class-related differences in educational attainment. Jackson and Jonsson (2013, p. 330) found that there is more variation in secondary effects across countries and over time, and they argue that ‘primary effects may constitute a floor level of inequality of educational opportunity that secondary effects build on’. Jackson and Jonsson (2013) suggest that primary effects are less easily reduced by policy interventions and that educational policy will therefore be more successful in manipulating inequality of educational opportunity through interventions that reduce the secondary effect. To be able to do this, understanding the mechanisms that underlie the secondary effect is paramount.

Literature has pointed to the significance of parental background for educational opportunities and the perspective of parents has likewise dominated research on educational choice (Barg, 2012; Boone & Van Houtte, 2013a; Dustmann, 2004; Jæger & Holm, 2007; Kloosterman et al., 2009). Theoretical developments that increase our understanding of the secondary effect have been centred on the individual level, and have mostly applied concepts and mechanisms that are primarily situated within the family. For example, the concepts of cultural and social capital are used to explain differences in educational decision-making (Bourdieu & Passeron, 1977; Coleman, 1988). Literature suggests that parents’ level of cultural and social capital determines not only their preference for certain educational options (Jæger, 2009; Jæger & Holm, 2007), but also the constraints they encounter in decoding the education system (Ball, 2003; Gewirtz, Ball, & Bowe, 1995a; Reay, 2004; Van Zanten, 2005). In addition, rational choice theory starts off from the idea that in educational decision-making, families actively engage in a cost-benefit calculation, the expected outcome being a function of social background (Boudon, 1974; Breen & Goldthorpe, 1997).

However, it is acknowledged in literature that choices are not made in a vacuum (Jæger, 2007). Research on educational decision-making has therefore also considered school effects (Jonsson & Mood, 2008; Kauppinen, 2008; Lauen, 2007; Van Houtte & Boone, 2012). Studies that investigate school effects on pupils’ educational choices, are almost exclusively concerned with school compositional effects, such as SES context or average
achievement effects (Jonsson & Mood, 2008; Kauppinen, 2008; Lauen, 2007; Van Houtte & Boone, 2012). These studies have mostly described peer effects in terms of reference group mechanisms, as have school effects studies on pupils’ educational aspirations (Frost, 2007; Goldsmith, 2004; Van Houtte & Stevens, 2010). For example, a study by Frost (2007) shows that students’ educational expectations are higher at schools with high proportions of ethnic minority students. In addition, Lauen (2007) suggests that a school’s average math achievement level might exert a frog pond effect, since his results showed that students at high achieving schools are less likely to enrol in a selective high school. Thus, studies about educational choice and aspirations have paid little attention to school features other than composition effects. Although a shift in focus towards the study of within-school processes has been apparent in the development of school effects research in general (Reynolds & Teddlie, 2000b), this has but scarcely been extended to the study of student outcomes other than achievement.

In unravelling the mechanisms of the secondary effect and in designing policy interventions to tackle it, it might be particularly useful to look at the role of the primary school teacher in educational allocation. This argument is supported by Jackson and Jonsson (2013), who argue that policies should target the behaviour of educational institutions, as possible persuading or discouraging forces for pupils and their parents in educational decision-making. For example, Jackson and Jonsson (2013) argue that, in order to equalize the costs and benefits associated with educational options, providing persuasive professional guidance can encourage high qualified but disadvantaged students to choose a demanding option. Furthermore, investigating the role of the primary school teacher adds to existing literature on inequality in educational choice, where mechanisms within the family have been dominant. In fact, teachers can be seen as providing important information about the suitability of educational options to pupils and their parents in the process of educational decision-making (as is also argued by Bonizzoni, Romito, & Cavallo, 2016). The role of the teacher in this regard is most apparent in the provision of an educational recommendation, whether binding or not.

In this respect, Hartmut Esser (2016) suggests the existence of a tertiary effect of social class on educational attainment, in addition to Boudon’s (1974) original distinction
between the primary and secondary effect. This tertiary effect captures inequality in educational attainment through the institutional sorting process in which teachers show differing expectations, evaluations and recommendations towards pupils with different social backgrounds. This way, the original distinction of Boudon (1974) is elaborated by adding the role of the teacher in the process of educational allocation. However, since this is only a recent concept, few studies have elaborated on the mechanisms of the tertiary effect. Yet, overall, research has assigned an important role to biased teacher perceptions, evaluations and behaviours for the gap in student achievement across ethnic, social or gender lines (e.g. Auwarter & Aruguete, 2008; Downey & Pribesh, 2004; Ferguson, 2003; Jussim, Eccles, & Madon, 1996). In addition, studies have shown that teachers are influenced by pupils’ socio-economic and ethnic background in deciding which educational option to recommend at the transition from primary to secondary education (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner, Helmke, & Schrader, 2009).

Teacher recommendations are studied mostly with regard to the extent to which they are meritocratic or biased by pupils’ social background (Dollmann, 2016; Driessen, Sleegers, & Smit, 2008; Luyten & Bosker, 2004; Schneider, 2011). In addition, studies have tried to explain the social bias in teacher recommendations but have been centred on the individual level (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013b). Literature that investigates the role of the teacher in educational allocation has paid little attention to the broader school context within which the teacher operates. Previous studies nevertheless suggest that teachers’ beliefs and practices are influenced by the school and class context in which they teach (Stevens, 2007; Van Houtte, 2011b; Van Zanten, 2005).

Thus, in order to understand how teachers influence inequality in educational decision-making, we should be aware of how teachers are influenced by the school and class context in educational allocation. Nonetheless, school effects research in general has been criticized for being predominantly occupied with student outcomes (Reynolds & Teddlie, 2000a), while the role of the teacher in school effects has received little attention (as is also argued in Van Houtte, 2011b). Furthermore, school effect studies
that include the role of the teacher have been situated mostly at the level of secondary education (e.g., Demanet & Van Houtte, 2012; Opdenakker & Van Damme, 2001; Van Houtte, 2011b), while research has shown that school effects are likely greater in primary education (Teddle, Stringfield, & Reynolds, 2000).

Therefore, this dissertation integrates research on the role of the teacher in educational allocation with school effects research on educational decision-making. More specifically, the central aim of this dissertation is to study the mechanisms through which teachers, as part of the primary school, can influence inequality in educational decision-making at the transition from primary to secondary education in Flanders, the Northern, Dutch-speaking part of Belgium. Examining the role of the teacher as part of the primary school can enhance our understanding of the mechanisms of the tertiary effect of social class. In addition, a focus on school effects other than peer effects adds to our understanding of the school processes that influence inequality in educational decision-making.

Because the Flemish education system is highly differentiated and includes early tracking, analysing educational choice is of particular importance in understanding educational inequality in Flanders. That is, research has shown that early tracking in choice-driven education systems strengthens self-selection mechanisms and increases the secondary effect of social class (Brint, 2006; Dollmann, 2016). Since the track entered at the beginning of secondary education tends to have lasting consequences for pupils’ educational trajectories (Breen & Jonsson, 2000; Dustmann, Puhani, & Schönberg, 2014; Holm, Jaeger, Karlson, & Reimer, 2013; Van Damme et al., 1997), studying the secondary effect will enhance our insights into the mechanisms of inequality of educational opportunity in general.

Furthermore, the Flemish education system provides an interesting setting to study the mechanisms of the tertiary effect, since the teacher recommendation, although not binding, is the only individual and formal advice given to pupils and their parents on behalf of the school. In addition, the process of educational allocation is very loosely organized and the Flemish government provides few guidelines on how to formulate an
educational recommendation (Boone & Van Houtte, 2013b). Due to this loosely organized character of the transition from primary to secondary education, Flemish schools and teachers enjoy a lot of autonomy in organizing educational allocation.

The structure of this dissertation is as follows. A general sociological framework on the topic of educational decision-making at the transition from primary to secondary education is sketched out in Chapter 2. This chapter is divided into three main parts: first, I elaborate on inequality in educational choice and theoretical explanations for the secondary effect; second, I introduce the tertiary effect of social class and theorize on the role of teachers with regard to inequality in educational decision-making; and third, I look at the role of the primary school. In Chapter 3, the research focus is presented, accompanied by a conceptual model. Chapter 4 provides a picture of the transition from primary to secondary education in the Flemish education system. Chapter 5 sheds light on the data and methods used to conduct each of the empirical studies, which are presented in Chapter 6. Lastly, conclusions are drawn in Chapter 7, which also includes discussing remarks on the limitations of the empirical studies and on the implications of this dissertation for future research and educational policy.
2.1 Inequality in educational decision-making

2.1.1 Introducing the secondary effect

Research on inequality in educational opportunity has recurrently shown that pupils’ achievement is influenced by their family background (e.g. Lee & Burkam, 2002; Roksa & Potter, 2011). In addition to unequal achievement, Boudon (1974) argues that two equally able pupils, one with a high socio-economic status (SES) and one with a low SES, will attain different credentials due to the different decisions they make at branching points in education. At these branching points, students and their parents typically have to choose, either between entering the labour market or proceeding further education, or between different courses (such as an academic or vocational course) (Breen & Goldthorpe, 1997). Therefore, Boudon (1974) argues that there are two basic mechanisms that generate inequality of educational opportunity. According to Boudon (1974), the fact that children of lower social status obtain lower school achievement due to their cultural background, can be seen as constituting a primary effect of stratification. In addition, Boudon (1974) assumes that educational decisions are influenced by social background, not only because of the social class effect on achievement, but also because of an independent direct impact of social class on educational choice. This direct impact of social class on educational choice is conceptualized by Boudon (1974) as a secondary effect of social class.

Studies on inequality in educational choice argue that the transition from primary to secondary education constitutes a first important branching point in education (e.g.
Driessen et al., 2008; Dustmann, 2004; Jacob & Tieben, 2009). Secondary education is often divided into a general, academic track preparing for a college or university degree, and intermediate or vocational tracks preparing for job-specific skills (Blossfeld, Buchholz, Skopek, & Triventi, 2016; Dustmann et al., 2014; Jacob & Tieben, 2009). Several European studies have provided empirical evidence for the secondary effect by showing that a pupil with a low SES is more likely to end up in the less academically oriented, less demanding tracks than an equally able pupil with a higher SES (Flanders, Belgium: Boone & Van Houtte, 2012; Germany: Ditton & Krüsken, 2006; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009). In addition, research has shown that ethnic background influences educational choice (Jackson, Jonsson, & Rudolphi, 2012; Mickelson, 1990; Teney, Devleeshouwer, & Hanquinet, 2013). This empirical evidence suggests that immigrant students have higher, more ambitious educational aspirations.

The importance of the transition from primary to secondary education is evident in research findings showing that the choice for an academic track in secondary education is positively related to enrolment in higher education (Breen & Jonsson, 2000; Holm et al., 2013) and to higher wages in the long-term (Dustmann et al., 2014). For example, Dustmann and colleagues (2014) show that parents’ educational background influences earnings through its relationship with the track choice for secondary education. Due to path dependencies of the tracks in secondary and post-secondary education, pupils’ educational and occupational trajectories are largely determined by their track choice at the transition to secondary education (Breen & Jonsson, 2000). In addition, secondary effects are expected to be greatest in education systems in which tracks are tightly linked with a specific motivational climate and prestige, and to specific educational trajectories or opportunities on the job market (Brint, 2006).

Most European education systems are highly tracked and choice-driven, although research has shown that this strengthens self-selection mechanisms and increases social inequality (Brint, 2006; Dollmann, 2016; Gamoran, 2009; Van de Werfhorst & Mijs, 2010). Several studies argue that early tracking increases the influence of parental background on educational choice (Blossfeld & Shavit, 1991; Jackson & Jonsson, 2013;
Mare, 1980). That is, a young age at which pupils have to choose, is expected to increase the weight of class-related parental preferences in choosing a track for secondary education (Dustmann et al., 2014). Dustmann and colleagues (2014) argue that systems with early tracking in particular include an increased risk of misallocating students due to incomplete information about students’ full learning potential. On the contrary, proponents of a tracked education system point to the possible positive effects for student achievement, due to higher differentiation and due to highly needs-based curricula (Triventi, Kulic, Skopek, & Blossfeld, 2016). However, Triventi and colleagues (2016) argue that this advantage of tracking assumes that track placement is meritocratic and based only on students’ ability. In this respect, Triventi and colleagues (2016, p. 5) argue that tracking is only efficient when ‘institutions and families assign students reliably to the “right” track for their achievement’. This suggests that, especially in highly tracked education systems, analysing educational decision-making at the transition from primary to secondary education can contribute significantly to our understanding of inequality of educational opportunity.

2.1.2 Explanations for the secondary effect

Theoretical developments in explaining the secondary effect can be divided into three main strands (Boone, 2016; Hatcher, 1998; Smyth & Banks, 2012). First, Bourdieu’s (1974, 1986) concepts of cultural capital and habitus are used to depict how differences in educational decision-making come about through the operation of a “practical sense” (see Section 2.1.2.1) (see also: Hatcher, 1998). Second, Coleman’s (1988) concept of social capital shows how the process of educational decision-making is facilitated for the higher social classes (See Section 2.1.2.2). Third, rational choice theory shows how educational decision-making results from a rational calculation of which the expected outcome is a function of social background (See Section 2.1.2.3) (Boudon, 1974; Breen & Goldthorpe, 1997).

2.1.2.1 Educational decisions derive from the operation of a practical sense

The cultural reproduction theory of Bourdieu and Passeron (1977) argues that the education system reproduces class inequalities and legitimizes their existence. That is,
according to cultural reproduction theory, the education system secures existing class inequalities in society and mediates the relationship between original class membership and ultimate class membership (Sullivan, 2002). Because the education system represents the dominant middle-class culture, students from the middle or higher classes enter education with an early advantage (Bourdieu & Passeron, 1977).

For this reproduction of social inequality in education, Bourdieu (1974, 1986) places great emphasis on cultural capital. Bourdieu (1986) distinguishes three forms of capital (economic, social and cultural), but emphasizes how especially cultural capital can explain unequal achievement in education. That is, the transmission of cultural capital is named as the most determinant educational investment. All forms of capital are acquired and accumulated through early socialization and domestic transmission, and are marked by the conditions of acquisition, thus varying along social class lines (Bourdieu, 1986). The distribution of economic, cultural and social capital follows the structure of social positions in society. In addition, each form of capital has the capacity to produce profits (of material and symbolic nature) and to reproduce itself. Cultural capital is conceptualized by Bourdieu (1986) in three forms. In its objectified state, cultural capital refers to cultural goods such as books, dictionaries, musical instruments and paintings. In its institutionalized state, cultural capital represents educational qualifications. In its embodied state, cultural capital is an integral part of a person in mind and body, consisting of dispositions that make up a class-based habitus.

Bourdieu’s (1974, 1986) concept of cultural capital implies that the extent to which learning activities at school are translated into educational success depends on familiarity with the dominant culture in society. According to Bourdieu (1974; 1977), this familiarity with the dominant culture is evident in cultural practices such as the use of educated language, habitual manners, knowledge and linguistic or cultural competencies. Cultural capital is presented by Bourdieu (1986) as the most hidden source of hereditary transmission. The symbolic efficacy of cultural capital is most evident in this high degree of concealment of its transmission. The fact that cultural capital disguises its own function allows the institutionalized form of cultural capital – that is educational qualifications – to be legitimized as the products of natural ability.
A central characteristic of Bourdieu’s (1986) forms of capital is their tendency to reproduce and accumulate. According to Bourdieu (1974, 1986) objectified cultural capital – that is cultural goods – is only effective if it is invested in a field that allows its valorisation. In line with this argument, Jaeger (2009) states that a high level of cultural capital amounts to a preference for educational options that enable the investment of cultural capital. Jaeger (2009) investigated the hypothesis that children transform their cultural capital in educational success through what is called “the child investment effect”. This implies that high cultural capital amounts in a higher likelihood of choosing upper-secondary education because it presents an opportunity to invest cultural capital in education and occupation for a long-term advantage. According to Jaeger (2009), this suggests that, in educational decision-making, children and their parents are inclined to prefer educational destinations in which their amount of cultural capital can be successfully valorised. This way, the possession of cultural capital would result in different dispositions towards learning (Bourdieu, 1974; Bourdieu & Passeron, 1977). A system of dispositions is described by Bourdieu and Passeron (1977) with the concept of habitus, which is further defined as a manner of being, a habitual state.

Although the concept of habitus has been criticized for being unclearly defined (Sullivan, 2002), and for being overly deterministic (King, 2000), it is useful in depicting processes of self-selection in education. The habitus provides a sense of the current tendency of the entire class to pursue certain options and not to pursue other options (Sullivan, 2002). Class-based habitus provides the confines of an unconscious anticipatory evaluation of the likelihood to succeed, applied to and shared by the entire social class. This way, self-selection in education can be seen as deriving from the operation of a “practical sense”, a feel for the non-compatibility of certain educational options with one’s social position (Hatcher, 1998). According to Sullivan (2002), the concept of habitus is not particularly useful for empirical research, but the concept of cultural capital is substantive enough to be used in empirical studies.

The concept of cultural capital has been used by several studies to enhance our understanding of social inequality in education (De Graaf, De Graaf, & Kraaykamp, 2000; Dumais, 2002; Jæger, 2009). De Graaf and colleagues (2000) conclude that parental
reading behaviour as a measure of parents’ linguistic and cognitive skills is the most important aspect of cultural capital that positively affects the number of years in education. According to De Graaf and colleagues (2000), pupils who have fewer cultural resources available at home, and who have not been socialized into highbrow cultural activities, lack important skills, habits and styles that are positively valued in education. De Graaf and colleagues (2000) view this line of thought as resulting in either self-selection (refraining from entering higher levels of education), indirect exclusion (achieving lower results) or teacher selection (referring to different teacher expectations or recognition). Similarly, Jaeger (2009) showed that cultural capital affects educational decision-making. High cultural capital is, even when controlling for academic ability, positively related to the preference for what the author calls the ‘cultural capital heavy academic track’ over the ‘cultural capital light vocational track’ (Jæger, 2009, p. 1959).

In addition, Jaeger and Holm (2007) found that cultural capital is negatively related with the probability to choose vocational education or to quit school after primary education. The authors (2007) argue that cultural capital is the primary determinant of choosing upper secondary education.

In addition, the work of Lareau (1987, 1989) has drawn attention to how cultural capital facilitates family-school relationships for middle-class parents and their children. For example, Lareau (2001) suggests that cultural practices of the middle-class family, that are evident in for example child rearing practices, are more in line with what schools expect from parents, than those cultural practices of working-class families. Lareau’s (2003; 1987, 1989, 2001) focus on the micro-interactional processes between the school and the family is also reflected in research that shows how strategies in the process of educational decision-making are class-related (Barg, 2012; Reay, 2004; Van Zanten, 2005). For example, Reay (2004) suggests that the educational background of middle-class mothers translates into a higher confidence and effectiveness in dealing with teachers in case of disagreements. Middle-class parents experience a higher sense of entitlement in their involvement at school. In contrast, working-class mothers display much more doubt and anxiety in interacting with teachers, resulting in a more careful, less empowered approach of teachers. This pattern equally applies to strategies used in
educational decision-making. Gewirtz and colleagues (1995b) show how middle class parents are more capable of decoding the education system due to their higher cultural capital in terms of the necessary knowledge and skills to engage in school choice. According to Reay (2004), working-class families lack the entitlement to use freedom of school choice to their advantage, while middle-class parents are more able to choose and to get the choices they want. In addition, studies have shown that highly educated parents are more involved in track or group placement of their child and are more inclined to influence the teacher in his/her educational recommendations (Barg, 2012; Bonizzoni et al., 2016; Elbers & de Haan, 2014; Useem, 1992).

2.1.2.2 Educational decision-making is facilitated by social capital

The concept of social capital has its origin in two different intellectual streams (Bourdieu, 1986; Coleman, 1988). Coleman (1988) departs from the intellectual stream of rational action, but proposes the concept of social capital as a tool to introduce social structure into this paradigm. In this respect, Coleman’s (1988) definition of social capital is fundamentally different from that of Bourdieu (1986). While Coleman (1988) provides a functionalist account of the concept, assuming human agency, Bourdieu’s (1974, 1986) conceptualization of social capital needs to be seen in light of his broader conflict theory of social reproduction (see also: Ballantine & Spade, 2012; Boone, 2016). Bourdieu’s (1986) concept of social capital refers to the resources that can be gained from the membership of a group; that is, a durable network of institutionalized relationships. The creation of a durable network results from individual or collective, conscious or unconscious efforts to secure the benefits and obligations in relationships. Social capital is defined by Bourdieu (1986) as a collectively-owned capital, of which the volume depends on the size of the network and on the extent to which the network members possess other forms of capital.

According to Coleman’s (1988) definition, social capital is not an attribute of human actors but exists only in social relations. This means that social capital is context-specific, and produces certain resources or facilitates certain actions depending on the social structure. The concept of social capital thus expresses the function of social relations for
the actors involved in it. Coleman (1988) argues that actors purposefully engage in the acquisition and use of resources produced in social relations. Coleman’s (1988) concept of social capital can present itself in the form of three different resources. First, trustworthiness of the social environment, constituted by the obligations and expectations actors hold towards each other. Second, information channels, providing information that an actor would otherwise have to acquire on itself. Third, norms and effective sanctions, facilitating actions that are in line with the norm, while constraining other actions that go against it. According to Coleman (1988), closure of a social structure – for instance, when parents know other parents at school – is especially important in facilitating the latter: the normative function of social capital. Furthermore, Coleman (1988) argues that among peers at school, there exists a high degree of closure, since they see each other very frequently. This can be seen as related to the normative function of peers, that has been established with regard to educational aspirations (see Section 2.3.2.1).

With regard to the benefits of social capital, Coleman (1988) specifically denotes the effects of social capital on the creation of human capital in the next generation. That is, independent of the amount of human capital within a family (i.e. parents’ educational background), the amount of time and energy that parents spend on the transfer of their human capital to their children determines the children’s educational success. Empirically, Coleman (1988) established the relationship between social capital within the family (as operationalized by the ratio of parents to children) and drop-out of high school. For example, Coleman’s (1988) analyses show that children with four siblings and only one parent have a higher drop-out rate than children with one sibling and two parents. In addition, social capital outside the family, existing for example in relations among parents, can influence the education of the next generation. For example, Coleman’s (1988) analyses show lower drop-out rates for children of Catholic schools compared to children of public or other private high schools, due to the fact that Catholic schools are most surrounded by a community based on religious background.

Studies have shown how social capital is related to educational aspirations (Byun, Meece, Irvin, & Hutchins, 2012; Jæger & Holm, 2007). Jaeger and Holm (2007) found
that social capital, operationalized as whether respondents know people that might help their children be successful in vocational education, is positively related to the probability to choose vocational education. In addition, Buyn and colleagues (2012) found that educational aspirations for post-secondary education of students in rural areas are higher for students with high social capital, following Coleman’s (1988) original conceptualization of social capital within the family. Those students who frequently discussed college plans with their parents and who perceived that their parents had high college expectations of them, had higher educational aspirations.

In addition to these social capital effects on educational aspirations, studies have shown how social capital facilitates the process of educational decision-making (Ball, 2003; Ball & Vincent, 1998; Horvat et al., 2003; Reinoso, 2008). Horvat and colleagues (2003) show how middle-class parents feel more confident in influencing their children’s school career, since they can rely on their relation with other parents to react collectively in problematic situations. In addition, the authors (2003) found that the social network of middle-class parents more often included professionals that can provide important information, expertise and authority on educational matters, as compared to the social network of working-class and poor parents. Similarly, Ball (2003) shows how social capital allows parents to mobilize support for their child (such as private tutors) and thus to intervene in their child’s educational trajectory. In Ball’s (2003) work, the role of social capital for educational decision-making is especially evident in the opportunity to access informal information about the education market. It is argued that information that relates to the education market can be divided into formal and informal information (Ball, 2003; Ball & Vincent, 1998). Formal information is provided by schools, through for example the publication of examination results and is designated as “cold knowledge”. Informal, or “hot knowledge”, is gained through the exchange of experiences and impressions of people within their social network. In this respect, Reinoso (2008) showed how high social capital of parents translates into cultural capital through the exchange of informal information about specific schools and about the education system in general.
2 Theoretical framework

2.1.2.3 Educational decisions derive from a rational calculation

According to Breen and Goldthorpe (1997) the cultural explanations for class inequalities in education are unsatisfactory. Boudon (2008, p. 194) denotes his rational choice theory as a reaction to ‘a classical sociologist’s notion of the homo sociologicus being the product of his environment’. Rational choice theory assumes that self-sufficient explanations of social phenomena are only obtained by capturing the collection of individual actions or decisions. These individual actions or decisions are based on strong, understandable reasons that derive from the actor’s consideration of the consequences of action for him/herself. In other words, according to Boudon (1986), the social phenomenon of inequality in educational choice is explained by the mere summary of individual decisions that are made purposefully and rationally.

This way, rational action theory (Boudon, 1974; Breen & Goldthorpe, 1997) and cultural reproduction theory (Bourdieu & Passeron, 1977) represent very dissimilar theoretical explanations for the secondary effect. Both theories are concerned with the relationship between original class membership and ultimate class membership, but while cultural reproduction theory attributes a prominent role to the education system in mediating this relationship (Bourdieu & Passeron, 1977; Sullivan, 2002), rational choice theory ascribes an important role to a purposeful and rational actor in this process (Boudon, 1974; Breen & Goldthorpe, 1997). While rational choice theory is a micro-level theory, the reproduction theory of Bourdieu and Passeron (1977) embeds macro-level structures in day-to-day life, bridging macro-level and micro-level explanations (Ballantine & Spade, 2012; Hatcher, 1998). While rational action theory ignores culture, reproduction theory states that the dominant middle-class culture is embedded in education.

However, unlike cultural reproduction (Bourdieu & Passeron, 1977) and social capital theory (Coleman, 1988), rational choice theory (Boudon, 1974) was explicitly developed to explain class differences in educational choice. Boudon (1974) assumes that educational decisions are made rationally, based on a cost-benefit calculation, with the aim of maximizing the utility of a specific educational decision. The parameters of this
rational calculation (cost, benefit and utility) are a function of social background. The cost parameter is a decreasing function of social class. Thereby, the costs are both financial and social, the latter concerning the loss of solidarity with peers or family members and thus with the social class of origin. That is, social costs are higher for a working-class student who chooses a prestigious option which most of his working-class friends will not choose. The lower the costs of a certain educational decision, the higher the expected utility of making this decision. In addition, both the benefit and utility parameters are increasing functions of social status. This class-related nature of benefit and utility is mainly due to the differing likelihood of social promotion or demotion after obtaining a certain educational level. For example, a student of lower class background can expect social promotion if he/she chooses vocational education, while for a student of higher class background the vocational option most likely entails social demotion. Therefore, anticipated benefits of choosing a prestigious educational option are higher for children of higher social class. The utility of an educational decision is a function of the cost and benefit parameter. The expected utility of choosing an educational option will be high if the anticipated benefits exceed the costs. The greater the utility of choosing a specific educational option, the higher the probability that this option will be chosen.

The parameters of the cost-benefit calculation are further explained in the extension of rational choice theory by Breen and Goldthorpe (1997). Although Breen and Goldthorpe (1997) only focus on the monetary costs of educational decisions, they further distinguish these costs between direct costs of education (i.e. tuition fees and material costs) and indirect costs (i.e. forgone earnings by delayed entry into the labour market). The benefit of an educational decision is framed by Breen and Goldthorpe (1997) as a function of the likelihood of success in a certain educational option. That is, the benefit is conditional on a subjective evaluation of the probability to succeed (i.e. to pass examinations). In addition, the authors (1997) argue that each educational option is, after completion, related to a probability of access to a specific social class. According to Breen and Goldthorpe (1997) a societal consensus exists about the extent to which each educational option provides access to a certain social position.
Based on this societal consensus, the authors (1997) conceptualize relative risk aversion as a mechanism through which social class impacts on educational decisions. This mechanism identifies people’s motive of status maintenance. The authors (1997) argue that the tendency to avoid downward social mobility is a driving force for people of all social classes and influences the preference for certain educational choices. More specifically, relative risk aversion conceptualizes the fact that parents prefer their children to occupy a position that is at least as advantageous as their own. Considering the differing social status of parents, this risk aversion is relative to the social class position of origin. For example, this implies that working-class parents will prefer to minimize their child’s chances of being poor or unemployed, while middle-class parents will try to maximize their child’s chances of access to the middle or higher class.

Breen and Goldthorpe (1997) describe their theory in strong contradiction to culturalist explanations of class inequalities in education. Most notably, the authors (1997) do not attribute any importance to social class other than describing a position in the social structure, and they are especially hesitant to recognize the existence of class-specific values and norms. In addition, differences between classes are, according to their assumptions, only evident in the different average ability of students and in differing monetary resources. According to Breen and Goldthorpe (1997) the subjective evaluation of the likelihood to succeed in education is influenced by social class only through its relationship with ability. Additionally, a differing availability of economic resources affects the perception of which educational option is most interesting. An extension of the model of Breen and Goldthorpe (1997), was provided by Esser’s (1999) subjective expected utility model. This model suggests that the probability to proceed to a higher level of education depends on the educational motivation exceeding the investment risk. Thereby, educational motivation is the sum of the expected benefit of higher education and the impact of an expected status decline. The investment risk is a function of the costs and the subjective probability to succeed in a specific educational option.

A study by Stocké (2007) confirms that the subjective evaluation of the probability to succeed is related to social class and based on ability. According to the analyses of Stocké
(2007), both the evaluation of the likelihood to succeed and the motivation to avoid downward mobility affect educational decisions. However, the analyses of Stocké (2007) do not support the fact that the influence of social class on educational decisions is explained by these mechanisms. Stocké (2007) further contradicts the assumption that relative risk aversion is identical across all social classes, as he shows that routine non-manuals and small proprietors are more inclined to avoid downward mobility.

In addition, a study by Breen and colleagues (2014) shows how relative risk aversion influences the educational choice for secondary education, but only for students from middle socio-economic status or disadvantaged backgrounds. Within these socio-economic groups, students who are more risk-averse (i.e. prefer less uncertainty in expected returns) are less likely to choose the academic track over the vocational track. This means that the risk of choosing an academic track outweighs the returns for less advantaged risk-averse students. The authors (2014) argue that students from advantaged socio-economic backgrounds will choose academic secondary education even when they are risk-averse, since choosing any other option would entail social demotion. In addition, Breen and colleagues (2014) found that time discounting preferences constitute another mechanism of educational decision-making in rational choice theory. Time discounting preferences depict the value students attach to long-term returns of educational decisions, as compared to short-term immediate returns. A student with a high time discount rate prefers lower but short-term returns over higher but long-term returns. Students who prefer delayed but higher returns have a higher probability to choose an academic track over a vocational track. Nevertheless, Breen and colleagues (2014) also showed that the effect of social class on educational choice is not explained by the class-related mechanisms of risk aversion and time discount rate. The latter conclusion is also supported by Gabay-Egozi and colleagues (2010).

The rigid notion of instrumental rationality that rational choice theory assigns to pupils and their parents in educational decision-making has been criticized (e.g. Ball, 2003). In addition, sociologists have disapproved of the methodological individualism with which rational choice theorists explain social facts (see: Boone, 2016). Using a reductionist approach, rational action theories reduce complex social phenomena such as inequality
in educational choice to the mere summary of rational, individual decisions, ignoring the influence not only of irrational and intuitive elements but also of cultural barriers in educational decision-making (see Section 2.1.2.1) (Hatcher, 1998). Moreover, for pupils and their parents to be able to make a rational calculation of costs and benefits, reliable information about the probability to succeed is required. Especially in education systems with early tracking, educational decisions at the transition to secondary education are likely based on incomplete information (Dustmann et al., 2014).

Despite the marked differences between cultural reproduction theory (Bourdieu & Passeron, 1977) and rational choice theory (Boudon, 1974), a number of studies have combined rational choice mechanisms with the concept of cultural capital or habitus to explain educational inequality (Glaesser & Cooper, 2013; van de Werfhorst & Hofstede, 2007). Van de Werfhorst & Hofstede (2007) showed that differences in cultural capital account for variation in school performance (i.e. the primary effect), whereas the relative risk aversion mechanism, rather than cultural capital, accounts for differences in educational ambitions (i.e. the secondary effect). In addition, a mixed-method study by Boone and Van Houtte (2013a) suggests that parents make rational calculations in educational decision-making, while no effect of cultural and social capital was found. According to Glaesser & Cooper (2013), pupils’ and parents’ reasoning about educational choice can be explained in terms of rational choice mechanisms, but the confines of the cost-benefit analyses, and its upper and lower boundaries, are determined by class-based habitus.

Both cultural reproduction theory (Bourdieu & Passeron, 1977) and rational choice theory (Boudon, 1974) suggest that schools and teachers can play an important role in educational decision-making of pupils and their parents. First, in contemporary conflict theory, the process of teaching plays a vital role in the way schools reproduce inequality (Ballantine & Spade, 2012). That is, studies show that pupils’ cultural capital is related to preferable teacher treatment (De Graaf et al., 2000; Jæger, 2009). Teachers differential rewarding of basic skills and work habits of students from different social and ethnic backgrounds would be especially important with respect to the exclusion and recruitment of students to high status positions (Farkas, Sheehan, Grobe, & Shuan,
Therefore, Farkas and colleagues (1990) call for an investigation of how micro-processes of stratification influence the construction of teachers’ gatekeeper judgements in day-to-day interactions. Farkas and colleagues (1990) argue that the behaviour and perceptions of teachers as gatekeepers will enlarge our understanding of how cultural resources influence educational success. Similarly, Lareau and Weininger (2003) call for a focus on institutionalized standards of evaluation, and on the knowledge, skills and competencies necessary to comply with these standards in institutional encounters between the family and the school. In addition, Lareau and Horvat (1999) suggest investigating moments of inclusion and exclusion in education. Moments of inclusion are moments of reproduction where various forces (e.g. parents and the educational institution) converge to benefit a child in his/her educational trajectory. In these moments of inclusion, parents activate their cultural and social capital in interaction with educational professionals, which results for example in placement in a prestigious course or program, or encouragement for applying to college. A moment of exclusion can include, for example, placement in a low ability group.

Second, in rational choice theory, the teacher and the school context can be of particular importance in providing the information based on which a rational consideration can be made. Glaesser and Cooper (2013) have suggested the concept of subjective rationality as opposed to objective rationality, in trying to challenge the limited view of instrumental rationality in rational choice theory. The authors (2013) argue that the concept of subjective rationality captures the fact that choices are not always made based on complete information but often on the information available at reasonable cost. It follows that some people make decisions on the basis of subjectively valid reasons but objectively incomplete information. The school and the teacher can be important providers of such subjective information on the suitability of educational options at the transition to secondary education. However, although the role of the teacher and the school is acknowledged as vital in the reproduction of social inequality, studies that investigate the mechanisms through which this is evident with regard to educational decision-making are scarce.
2 Theoretical framework

2.2 The role of the teacher in educational decision-making

2.2.1 Introducing the tertiary effect

Previous research has shown that teachers allocate equally able students differently according to their socio-economic background (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner et al., 2009). Pupils with a higher SES are more likely to be advised to enrol in an academic, more demanding track, irrespective of achievement. Therefore, Hartmut Esser (2016) proposes to add a tertiary effect of social class to Boudon’s (1974) original distinction between the primary and secondary effect.

The central aim of Esser’s (2016) study was to build a theoretical Model of Ability Tracking (MoAbiT) to study the impact of differentiation on educational inequality and achievement. According to Esser’s model (2016), institutionalized sorting and subsequent attainment are the combined result of two factors. First, achievement at the end of primary school, including the primary effect of social class. Second, deviations from the expected sorting outcome based only on achievement due to parents’ decisions (i.e. the secondary effect) and due to teachers’ socially biased recommendations (i.e. the tertiary effect). This way, Esser (2016) comes to the conclusion that inequality in educational attainment is due to three, not two, distinctive effects of social origin. While the primary and secondary effect are situated within the family, the tertiary effect captures the role of the school in institutional sorting, by pointing to the influence of teachers’ attitudes in the allocation process.

In general, the tertiary effect of social class can be seen as depicting the variation in teachers’ attitudes towards children of different social origin and the consequences for allocation. More specifically, the tertiary effect concerns inequality in educational allocation through varying teacher ‘expectations, efforts, evaluations and recommendations’ (Esser, 2016, p. 30). In particular the teachers’ evaluation and the recommendations given in the sorting process are important aspects of the tertiary effect of social class. However, since the original focus of Esser’s study (2016) was on the effects of ability tracking on educational inequality and achievement, and this
concept is only mentioned as a result of the development of his ability tracking model, the author (2016) does not go into greater detail with regard to the mechanisms of the tertiary effect.

2.2.2 Mechanisms of the tertiary effect

Teachers can influence pupils and parents in educational decision-making – either consciously or unconsciously – mostly with respect to the provision of information about suitable options in secondary education. This information can be deliberately given during a parent-teacher conference in the form of the educational option the teacher would recommend, but can also rather unintentionally influence educational decisions through expressions of different evaluations and expectations of pupils from different social backgrounds. Thus, to gain insight into the way in which teachers can impact on inequality in educational decision-making, three mechanisms can be of particular importance: teacher expectations, teacher recommendations and the teacher-parent interaction with regard to educational decision-making.

2.2.2.1 Teacher expectations

Teachers will most likely unintentionally inform students and their parents about the suitability of educational options through the expression of their expectations of pupils’ future performance. Research interest into teacher expectations has derived most notably from the Pygmalion study by Rosenthal and Jacobson (1968). In this influential study, Rosenthal and Jacobson (1968) conducted an experiment in a primary school, to investigate whether teacher expectations influence pupils’ achievement. Participating teachers were told that certain (in fact randomly picked) students were expected to be rapid learners, based on the (in fact non-existent) ‘Harvard Test of Inflected Acquisition’. Results of this study (1968) showed that pupils the teacher expected to be rapid learners made more intellectual progress than pupils the teacher did not have particularly high expectations of. The authors (1968) conclude that teacher expectations of pupils’ performance can create a self-fulfilling prophecy. Rosenthal and Jacobson (1968) found the self-fulfilling prophecy effect to be of greater importance for children in the lower grades. One of the explanations suggested for this finding by Rosenthal and Jacobson
(1968) is that younger children would be more sensitive to the way the teacher communicates his/her expectations. This finding points to the need to consider the role of teacher expectations for educational choice in differentiated systems with early tracking.

The concept of self-fulfilling prophecy was developed by Merton (1948), who was inspired by the symbolic interactionist idea that people respond to the meaning of a situation and not to the objective situation itself. In line with symbolic interactionism, it is the meaning ascribed to the situation that determines behaviour and the consequences of that behaviour. This way, Merton (1948) departs from the Thomas theorem (1928) which states that ‘If men define their situations as real, they are real in their consequences’. A self-fulfilling prophecy in the classroom can be seen as the process through which a student starts to attune to teachers’ expectations of him/her as either a talented or unpromising student. Self-fulfilling prophecies are also related to the basic theorems of labelling theory, originally applied mostly to the study of social deviance. Teacher expectations can be seen as labels given to pupils. According to Rist (1977), teachers’ labels are primarily based on two sources of information: face-to-face interaction, for example the interaction between pupil and teacher, and second-hand information, for example information heard or gathered through colleagues. The self-fulfilling prophecy can then be seen as an outcome of labelling students as high or low achievers.

Inherent in Merton’s (1948) original definition of the concept, is the presumption that it concerns an unreal or false definition of a situation. As Merton (1948, p. 195) argues: ‘the self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behaviour which makes the originally false conception true’. This presumption has induced a lot of discussion in teacher expectancy research. Consequently, studies have focused on whether, and under what circumstances, self-fulfilling prophecies occur in the classroom (Brophy, 1983; Jussim, 1989; Jussim et al., 1996; Jussim & Harber, 2005; Timmermans, Kuypers, & van der Werf, 2015). These studies have shown that teacher expectations predict student achievement more because they are accurate than because they produce a self-fulfilling prophecy (Brophy, 1983; Jussim, 1989). Similarly,
Van Houtte and colleagues (2013) suggest that teachers’ judgments of their students are fairly accurate because they reflect students’ self-reported attitudinal and behavioural characteristics. However, according to Van Houtte and colleagues (2013), the remaining stereotypical influences of student background characteristics (such as gender and migration background) on teacher judgements, controlling for students’ self-reported attitudes, indicate that the accuracy of teacher expectations does not undo the possible negative influence of prejudiced teacher judgements. Several studies have investigated the importance of individual pupil characteristics for teacher expectations (for a comprehensive overview, see: Jussim & Harber, 2005). These studies have shown that low teacher expectations are common for ethnic minority and lower-class pupils (Glock & Krolak-Schwerdt, 2014; Tenenbaum & Ruck, 2007; van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). These lower teacher expectations for low SES or ethnic minority pupils are used to emphasize the role of the teacher in educational inequality (Jussim et al., 1996).

The basic mechanism that is put forward to explain the fact that pupils adapt their behaviour in accordance with teacher expectations is the differential teacher treatment of low and high expectancy students (Brophy & Good, 1970; Cooper, 1979; Rubie-Davies, 2007). This behavioural mechanism would be apparent in more positive feedback, more support and higher performance goals for students for whom the teacher has high expectations (Brophy & Good, 1970). For example, Brophy and Good (1970) showed how teachers react differently to children’s attempts to answer questions in the classroom depending on their expectations. In their study, the authors (1970) showed that teachers more frequently praise correct answers of high expectancy students and even less frequently criticize them when they respond incorrectly. Moreover, teachers who have high expectations of their students would be more inclined to sustain a warm emotional interaction with their students (Cooper, 1979; Rubie-Davies, 2007). Due to these differential treatments, pupils of whom the teacher has high expectations are offered more opportunities to learn important scholastic skills.

A consensus exists among educational researchers that teacher expectations influence student behaviour, albeit in a rather modest way (Cooper, 1979; de Boer, Bosker, & van
der Werf, 2010; Ferguson, 2003; Jussim, 1989; Jussim & Eccles, 1992). For example, Ferguson (2003) suggests that teacher expectations affect students’ beliefs, behaviours and work habits, and thereby sustain the Black-White performance gap. In addition, a study by Jussim (1989) suggests that teacher expectations not only affect cognitive student performance but also non-cognitive student outcomes such as students’ self-concept of ability. Similarly, Trouilloud (2002) shows that teacher expectations influence students’ self-perceived competence in physical education. Considering this influence of teacher expectations on student achievement (Ferguson, 2003) and students’ self-perceived competence (Jussim, 1989), it is likely that teacher expectations can influence educational decisions in two ways. First, students and parents who experience high teacher expectations will feel encouraged to choose an academically oriented option in secondary education. Second, we can assume that the sixth-grade teacher will be guided by his/her expectations of a pupil’s future educational success in deciding which educational option to recommend at the transition to secondary education. Both mechanisms predict that teacher expectations will influence students and their parents in educational decision-making by guiding them in the subjective evaluation of the probability to succeed.

First, an integration of ‘Pygmalion’ research into the subjective expected utility framework, inspired both by Breen and Goldthorpe (1997) and by Esser (1999), has been advocated by Becker (2013). Specifically, Becker (2013) suggests that the subjective evaluation of the probability to succeed – which is one of the parameters of the rational cost-benefit calculation (see Section 2.1.2.3) (Breen & Goldthorpe, 1997) – can be influenced by teacher expectations. Pupils would, for example, evaluate their probability of success in the academic track as lower if they experience low teacher expectations because they expect poorer future performance. Becker’s (2013) results show that teacher expectations affect the probability that students graduate from high school and proceed to university, although the latter effect might be unstable due to sample selection bias. Becker (2013) assumes that self-fulfilling prophecies influence educational decisions via their impact on students’ performance since, according to the model of Breen and Goldthorpe (1997), the subjective evaluation of the probability to
succeed depends only on ability. In addition, research has suggested a direct link between teacher expectations and student aspirations, even when controlling for student achievement. Buyn and colleagues (2012) found that, in rural areas, a students’ educational aspirations for post-secondary education were higher when the teacher had high educational expectations for the student in question, irrespective of student achievement. In addition, according to a study by Frost (2007) students’ college expectations are higher if teachers encourage college attendance, even when controlling for student achievement.

Second, we can assume that the teacher’s recommendation for an educational option in secondary education is based on his/her expectations of a pupil’s future performance. In most central-European education systems, the teacher recommendation is an important part of the educational decision-making process, and constitutes the official advice given to pupils and their parents on behalf of the primary school (e.g. in the Netherlands, France, Germany, and Flanders, Belgium). The claim that teachers’ recommendations are related to their expectations is supported by the fact that several studies have used teacher recommendations as a means to operationalize teacher expectations (de Boer et al., 2010; Timmermans, de Boer, & van der Werf, 2016).

### 2.2.2.2 Teacher recommendations

The teacher recommendation – either binding or not – provides pupils and their parents with important information on the suitability of educational options (as is also argued by Bonizzoni et al., 2016). The influence of teachers in the allocation process is most apparent in the criteria used by them to formulate an educational recommendation. In allocating pupils to tracks, some education systems use standardized tests (e.g. the UK), while other systems attach most importance to the teacher recommendation, either accompanied by a form of standardized testing or not (e.g. the Netherlands, Flanders, Germany and France). Most studies on the role of the teacher in educational allocation have focussed on investigating the extent to which teacher recommendations are meritocratic or biased by pupils’ background characteristics (Dollmann, 2016; Driessen et al., 2008; Luyten & Bosker, 2004; Schneider, 2011). Previous studies have shown that
schools reproduce class differences in allocating students to tracks because teacher recommendations at the transition from primary to secondary education are biased by pupils’ socio-economic background, irrespective of achievement (Barg, 2012; Boone & Van Houtte, 2013a; Schneider, 2011; Wagner et al., 2009). In addition, Bonizzoni and colleagues (2016) have shown that teachers are hesitant to recommend an academic option to students with an ethnic minority background. To explain this social and ethnic bias in teacher recommendations, studies have referred to three main arguments: teachers’ perceptions of pupils’ study attitude (Boone & Van Houtte, 2013b; Timmermans et al., 2016), teachers’ perceptions of pupils’ parental involvement and support (Barg, 2012; Ditton, Krüsken, & Schauenberg, 2005; Duru-Bellat, 2002), and teachers’ biased expectations (Glock & Krolak-Schwerdt, 2014; Glock, Krolak-Schwerdt, Klapproth, & Bohmer, 2013).

Social and ethnic bias in teacher recommendations can be explained by lower teacher expectations of low SES and ethnic minority students. Studies suggest that stereotypical expectations are activated when teachers judge and allocate pupils of ethnic minority or low socio-economic background (Glock & Krolak-Schwerdt, 2014; Glock et al., 2013). This suggests that investigating teachers’ assumptions and perceptions is of vital importance to understand their role in inequality in educational decision-making. In addition, studies have emphasized two class-related non-cognitive pupil characteristics are taken into account by teachers in allocating pupils to tracks: pupils’ study attitude and their parents’ involvement (Bonizzoni et al., 2016).

Studies indicate that teacher perceptions of pupils’ work habits influence teachers’ track recommendations (Boone & Van Houtte, 2013b; Timmermans et al., 2016). A study by Boone and Van Houtte (2013b) shows that teachers deem non-cognitive student behaviours such as self-reliance, capacity to plan and punctuality, as suitable for the academically oriented tracks. These behaviours would not only be more typical of the middle class, but would also express a class based habitus. According to the theory of Kohn and Schooler (1969), values such as self-reliance and capacity to plan are emphasized by parents from higher SES (see also: Weininger & Lareau, 2009). In addition, Rist (1970) argues that students’ work habits are evaluated by their teacher
with specific reference to middle-class characteristics that are expected to lead to educational success. That is, Rist (1970) suggests that behavioural and cultural characteristics that are most desired by educated members of the middle class, such as leadership skills, educated language, a clean appearance and the ability to participate in a group, are seen as essential criteria for educational success. Bonizzoni and colleagues (2016) show that ethnic bias in teacher recommendations occurs because teachers want to protect ethnic minority students from failure. According to the authors (2016), teachers expect that ethnic minority students will be like a “fish out of water” in university-oriented tracks based on a lack of cultural and linguistic resources. Based on this assumption, teachers directed ethnic minority students to safer, less ambitious educational tracks.

Similarly, Smyth and Banks (2012) emphasize the importance of teachers’ assumptions in educational allocation at the transition to post-secondary education. That is, their qualitative analyses show that the nature of guidance differs across schools. In the middle class school they studied, the nature of guidance given to students is detailed and provides extensive information on higher education, based on the assumption that most of their students will go to university. On the contrary, in the working-class school, the nature of guidance is limited to information about realistic options other than university.

In addition, studies have shown that teachers take into account their perception of parental support in formulating an educational recommendation (Barg, 2012; Ditton et al., 2005; Duru-Bellat, 2002). Teachers’ perceptions of parental support appear lower for parents of low socio-economic backgrounds (Ditton et al., 2005; Duru-Bellat, 2002). According to Barg’s (2012) model, teachers evaluate their educational recommendation not only in terms of the extent to which parents are involved in their child’s schooling, but also in terms of the probability that parents would reject the option recommended. Previous studies have suggested that parents of higher social classes are more likely to exert pressure on teachers to get the recommendation for an academic option (Blossfeld, 2013; Dronkers, van Erp, Robijns, & Roelevend, 1998) (see also Section 2.1.2.1 and 2.1.2.2).
2.2.2.3  The parent – teacher interaction

The biased nature of teacher recommendations does not undo their importance. Considering the young age of pupils at the transition to secondary education in systems that include early tracking, parental aspirations also play an important role in making educational decisions. Yet, several studies have shown that teacher recommendations are less biased than parental aspirations (de Boer et al., 2010; Ditton & Krüsken, 2006; Ditton et al., 2005; Dollmann, 2011). Teachers can thus provide a correction to the secondary effect. For example, a study by De Boer and colleagues (2010) shows that teacher recommendations mediate the relationship between parental aspirations and a student’s educational choice. That is, the effect of parental aspirations on educational choice is attenuated by the teacher’s recommendation.

Nevertheless, choice-driven systems allow a great deal of freedom and responsibility to parents in the process of educational decision-making. Since research has shown that cultural and social capital are necessary to be able to beneficially participate in the education market (see Section 2.1.2.1 and 2.1.2.2) (1994; Ball, 2003; Lareau & Weininger, 2003), we can assume that teacher information is of particular importance for low SES or ethnic minority parents. In addition, research has shown that middle class parents are more confident in interacting with the teacher with regard to educational decision-making, while working class parents experience more constraints in this interaction (Seghers, Boone, & Van Avermaet, 2015). However, the teacher recommendation can only offer important support to parents if communicated and received explicitly. In this respect, receptive and supportive attitudes on behalf of the teacher can encourage a productive dialogue, especially for low SES parents (Deslandes & Bertrand, 2005; Domina, 2005).

Investigations into the role of the teacher in educational allocation have focussed mostly on the biased nature of teacher recommendations (Dollmann, 2016; Driessen et al., 2008; Luyten & Bosker, 2004; Schneider, 2011). Thereby, little attention has been paid to the actual communication of the teacher recommendation in a parent-teacher interaction. The communication of the teacher recommendations typically takes place
within the setting of a parent-teacher conference at the end of primary education. However, research has suggested diverging ranges of parental influence on track placement in this interaction (Barg, 2012; Horvat et al., 2003; Reay, 2004). Contemporary literature on parental involvement has been highly influenced by the model of Hoover-Dempsey and colleagues (2005). This model includes both parents’ motivation and background characteristics, and the school’s and teacher’s invitations as influencing the extent to which parents become involved. Thereby, invitations from the school and teachers are seen as the strongest predictors for parental involvement at school (Reynolds, Crea, Medina, Degnan, & Mcroy, 2015). In addition to invitations from the school, teacher beliefs are found to influence parents in their involvement at school (Eccles & Harold, 1993). These beliefs can be related to the value of parental involvement (i.e. the openness of teachers towards parents being involved), but also to the teacher’s sense of self-efficacy in involving parents (Hoover-Dempsey, Walker, Jones, & Reed, 2002; Symeou, Roussounidou, & Michaelides, 2012). A study by Symeou and colleagues (2012) suggests that a greater sense of teacher efficacy is related to more invitations for parental involvement through increasingly persistent behaviour.

The concept of self-efficacy has its origins in the social cognitive theory of Bandura (1986), who emphasizes an agency perspective in which people have control over their own behaviour. Self-efficacy is defined by Bandura (2006, p. 307) as ‘people’s beliefs in their capabilities to produce given attainments, and these beliefs can be related to different domains of functioning. The basic principle concerning self-efficacy is that, when people believe in their own capability to complete a certain task successfully, this enhances their motivation and persistence in the task, eventually also enhancing the efficiency with which the task is performed (Bandura, 1993, 2012). Self-efficacy thus affects the amount of effort that is put into an activity. According to Bandura (1993), four processes explain the influence of self-efficacy beliefs. First, higher self-appraisal of abilities is related to setting higher goals for oneself and being more highly committed to these goals (i.e. cognitive goal-setting processes). Second, higher self-efficacy encourages self-regulation of motivation (i.e. motivational processes). For example, this self-regulation of motivation is related to stronger task perseverance and stronger effort.
to complete a task successfully. Third, self-efficacy beliefs influence the amount of stress and anxiety associated with a task (i.e. affective processes). Fourth, self-selection processes can be explained by people avoiding tasks and situations they feel incapable of handling (i.e. selection processes). Hoover-Dempsey and colleagues (1987) suggest that teacher efficacy enhances the extent to which teachers discuss their teaching program with parents. Similarly, we might expect that teacher’s sense of self-efficacy can be of particular importance in educational allocation, for it can encourage teachers to elaborately discuss their educational recommendation with parents. In addition, since studies have suggested that the communication of an educational recommendation can provoke conflict or debate (Barg, 2015; Elbers & de Haan, 2014), teachers’ self-efficacy can be of particular interest with regard to the parent-teacher interaction on educational decision-making.

2.3 The role of the primary school in educational decision-making

The role of the primary school in educational decision-making in general is twofold. First, the school context can influence educational decision-making of pupils and their parents, a premise that is supported by previous school effects studies on educational choice (Goldsmith, 2004; Jæger, 2007; Jonsson & Mood, 2008; Kauppinen, 2008). Second, the school can influence the teacher in educational allocation. Previous studies have shown that teachers adapt their practices and beliefs to the school context in which they teach (Fang, 1996; Stevens & Vermeersch, 2010; Van Houtte, 2011b). With regard to educational allocation, research suggests that teachers’ expectations, evaluations and recommendations are influenced by the class and school context (Brault, Janosz, & Archambault, 2014; Tiedemann & Billmann-Mahecha, 2007; Trautwein, Ludtke, Marsh, Köller, & Baumert, 2006). Studies that investigate the role of the teacher in educational allocation have however paid little attention to the school context within which the teacher operates.

Since the late 1960s, school effectiveness research has focused on the question of whether schools can override the influence of students’ cultural and social backgrounds (Creemers, 1994). Since then, a vast body of research has been centred on ascertaining
the role of the school in social inequality. The study of school effects has been central to the school effects research tradition within the broader field of general school effectiveness research (Reynolds, Teddlie, Creemers, Scheerens, & Townsend, 2000).

2.3.1 School effectiveness research

According to a historical analysis of the development of school effectiveness research by Reynolds and colleagues (2000), this broader field can be divided into three main stages or strands: school effects research, effective schools research and school improvement research. These three strands differ mainly with regard to their research goals and applied methodology, but they derive their strength from the same basic developments in the broader field of school effectiveness research.

2.3.1.1 School effects research

In the first period of school effectiveness research (1966 to the early 1970s), economic input-output models dominated the field in what is termed the school effects research strand (Reynolds et al., 2000). The origins of school effects research are situated in the United States, most notably introduced by a government requested research programme on equality of educational opportunity, referred to as the Coleman study (1966). The Coleman study (1966) was one of the first influential large-scale investigations into the relationship between school characteristics and student achievement, with a specific focus on ethnic inequality and ethnic school segregation in both primary and secondary education. Thereby, school characteristics were mostly operationalized as school resources, such as the presence of libraries, laboratories, high qualified teachers and a strong curriculum. The findings of the Coleman report (1966) mainly suggested that school resources do not account for much of the variation in student achievement on standardized tests, when controlling for student background variables. As Coleman and colleagues (1966, p. 21) put it: ‘Schools are remarkably similar in the way they relate to the achievement of their pupils when the socio-economic background of the students is taken into account’. This conclusion was interpreted as encouraging the sociological pessimism of the 1970s and underscoring the general belief that ‘education cannot compensate for society’ (Bernstein, 1970).
However, the results of the Coleman study (1966) do show that the achievement of minority students was more affected by school resources than the achievement of majority students. Since ethnic minority students were often segregated into schools with lower-quality resources (e.g. fewer books per pupil, fewer science laboratories, lower quality of teachers), an improvement in school quality mattered most for the achievement of these pupils. Nevertheless, the strongest school effect that was found to be influencing student achievement, was related to the student body in terms of educational background (measured by the proportion of pupils with encyclopaedias at home) and aspirations (measured by the proportion of pupils planning to go to college). Although leading to a somewhat pessimistic conclusion, the Coleman report (1966) – along with a more sophisticated replication study by Jencks and colleagues (1972) in the USA and the Plowden report (1967) in the UK – stimulated further school effects research. Using the dominant input-output models, early school effects studies mostly considered student background and school resources as input variables, and student achievement measured by standardized tests as the output variable (Reynolds et al., 2000). Nevertheless, the one-sided focus on achievement in this first period of school effectiveness research has been heavily criticized, along with the ignorance of school processes (Reynolds et al., 2000). It has been argued that the lack of consideration paid to school processes led to an underestimation of school effects and to a sole focus on family background as the explanatory mechanism for the variation in student achievement.

2.3.1.2 School processes

In trying to move beyond the initial input-output models, more attention was directed towards school behavioural and attitudinal processes (Reynolds & Teddlie, 2000b). With this, school effectiveness research in general became known as a reaction to the pessimism that followed the Coleman results (1966) and as deriving its strength from the basic premise that ‘schools can make a difference’ (Beady, Flood, & Brookover, 1979). On the one hand, the original input-output models of school effects research were extended with a focus on school processes and became input-process-output models. On the other hand, the increased focus on school processes led to the
separation of effective schools studies as a second strand of school effectiveness research (Reynolds et al., 2000). Effective schools studies aim to identify school characteristics that produce effective schools through qualitative case studies – and later through mixed-method investigations – of success stories, that is, high-performing but low SES schools. Influential in this field was Edmonds’ study (1979) ‘Effective schools for the urban poor’ in which the author (1979) generated the ‘five factor model’ including five effective school characteristics: strong administrative leadership, high teacher expectations for all students, an orderly school atmosphere, a focus on basic school skills and a constant monitoring of pupils’ progress.

The focus on school processes was facilitated by the development of social psychological scales that measured the perception of school ethos (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979) and school climate (Brookover et al., 1978), allowing a rich picture of the school as a social system. Within this shift towards a focus on school processes, two factors are apparent: first, an inclusion of the classroom level (and most notably the teacher behaviour) and second, an increased focus on the attitudes, beliefs and perceptions of students and teachers (Reynolds & Teddlie, 2000b). In a departure from the originally more economic focus on a school’s physical resources, human resources (such as the quality of teachers, students’ sense of control or teacher expectations) began to attract more attention (e.g. Murnane & Nelson, 1984; Summers & Wolfe, 1977). These human resources, in terms of the attitudes and behaviours of teachers and other students, were now seen as more important predictors of student achievement than physical or economic school resources related to expenditures (such as teachers’ salary, the teacher-student ratio, or the presence of a library) (e.g. Hanushek, 1986; Murnane & Phillips, 1981). In addition, the emergence of teacher effectiveness research, allowed for an identification of teaching behaviour that effectively influences student achievement (e.g. Brophy, 1988; Reynolds & Teddlie, 2000b).

However, this increased focus on school processes also eclipsed the attention paid to the socio-economic school context that had appeared so important in the first period of school effects research (Coleman et al., 1966; Jencks et al., 1972; Plowden, 1967). While
2 Theoretical framework

the shift towards looking at effective school processes led to the emergence of effective schools studies, the description of successful school processes that these studies generated, was limited to a specific type of schools, namely those outlier schools that were successful in disadvantaged areas. Moreover, building on the effective school correlates of effective schools studies (e.g. Edmonds, 1979), a third strand of school effectiveness research emerged: school improvement research. School improvement studies aimed not only at describing, but also at actually creating effective schools, especially for the urban poor (Reynolds et al., 2000). This focus on the urban poor, entailed that the methodology of both effective school studies and school improvement studies contained severe sampling bias, investigating schools only in areas with high proportions of low SES students. In answer to this critique, school context factors were (re)-introduced in school effectiveness research (Reynolds et al., 2000). This was facilitated by the development of more sophisticated methodologies, in particular the development of multilevel analysis. This re-introduction of school context factors enabled school effect studies to expand the input-process-output model to the currently dominant CIPO-model: context-input-process-output. The first school effects studies focusing on the study of school contextual variables are situated in the UK, where in particular SES context effects – termed ‘compositional effects’ – were found to influence student achievement (e.g. Teddlie et al., 2000; Willms, 1986). Additionally, effective schools studies and school improvement studies in the USA shifted their focus towards the factors that produce effective schools not only for the urban poor, but for all students, through contextually sensitive school effectiveness studies (Teddlie et al., 2000).

2.3.2 School effects in educational decision-making

According to Jonsson and Mood (2008), the development of contextual school effectiveness research coincided with theoretical developments in reference group theory. The authors (2008) argue that this led to a growing attention to school and neighbourhood context effects in educational achievement and aspirations. Since peer group mechanisms were seen as the primary explanation for school context effects,
school effects studies were dominated by the study of so-called peer effects (for a comprehensive overview, see Thrupp, Lauder, & Robinson, 2002).

2.3.2.1 Peer effects in educational decision-making

Although school effects studies on educational decision-making are scarce, the few studies that do consider school effects follow the trend of looking at the composition of the student body in terms of peer effects for educational aspirations or educational choice (Goldsmith, 2004; Jæger, 2007; Kauppinen, 2008). Jæger (2007, p. 451) shows how students consider the social returns, as defined by ‘the preservation of existing peer groups and social networks’, as well as economic returns (i.e. a high income in the future) when deciding on an educational option for secondary education, although the latter are of somewhat greater importance. Thus, Jæger (2007) suggests that interaction with peers influences pupils’ educational decisions, since pupils aim to maximize the probability of preserving existing relations by adjusting their choice to the educational aspirations of friends and classmates. Similarly, Kauppinen (2008) speculates that peers can exert a normative influence on pupils’ educational choices, by showing that applications for upper-secondary school are more common in schools with a high proportion of white-collar employees among the students’ parents. In addition, Goldsmith (2004) shows that in mixed and especially in separate-minority schools — those with a high proportion of ethnic minority students and teachers — the educational and occupational aspirations of black and Latino students are more ambitious than those of their counterparts in separate-white schools. Goldsmith (2004) shows that eighth-grade black and Latino students have higher aspirations for their educational and occupational attainment and have more positive concrete attitudes about education at schools with a higher proportion of ethnic minority students. This is equally the case for white students, although only very few of them attend separate-minority schools. As a possible explanation, the author (2004) suggests that schools with a high proportion of ethnic minority students raise students’ aspirations, since the presence of minority peers with high aspirations creates a positive normative climate. This is in line with the findings of Frost (2007), showing that the educational expectations of high-school
students are greater at schools with a large proportion of ethnic minority students, holding other school factors constant, and irrespective of individual ethnicity.

The existence of a normative climate is in line with the normative function of reference groups (Kelley, 1968). Through this function, peers act as a reference group that sets standards and encourages fellow pupils to comply with these norms. The theory of reference groups is primarily concerned with how people evaluate their circumstances in relation to those of others. This way, reference group theory provides the theoretical underpinnings for the fact that self-evaluations or self-appraisals are shaped by social interaction (Hyman & Singer, 1968). Based on some atypical results in the publication of *The American Soldier* by Stouffer and colleagues (1949), Merton – in collaboration with Rossi – (1968) built a systematic theoretical basis for reference group theory around the concept of relative deprivation. This concept is used to depict the processes of self-appraisal in relation to others. It conceptualizes the fact that people can feel relatively deprived compared with peers who are better-off, experiencing feelings of dissatisfaction while the objective situation would not necessarily produce such feelings. The concept can however also apply when people experience feelings of satisfaction when comparing themselves to peers who are in a more difficult position. In fact, multiple comparisons are often used to offset feelings of dissatisfaction. The concept of relative deprivation falls under the comparative function of reference groups, by which a reference group acts as a point of comparison that people use when evaluating their own position and accomplishments (Kelley, 1968).

In line with the comparative reference group mechanism, Goldsmith (2004) suggests an additional explanation for the fact that the aspirations of black and Latino students are higher at separate-minority schools. At these schools, minority pupils can compare themselves with their minority peers, who are more likely to achieve lower than white students. This provides the students with a more optimistic evaluation of their own achievement. Similarly, a study by Van Houtte and Boone (2012) suggests that the SES composition of a school moderates the effect of individual SES on educational choice. Although the effect is very small, parents with a low SES will be less likely to choose an academic option at schools where the average SES is high, suggesting they evaluate their
opportunities in comparison to parents that are better-off. In a similar vein, but with regard to a school’s ability composition, Jonsson and Mood (2008) show that a student in a high achieving school is less likely to make an ambitious choice than a student in a low achieving school, although the actual achievements of the students are the same. Although the effect is small compared with the effect of absolute achievement and parental characteristics, the authors conclude that relative achievement is also of importance for educational decision-making. Jonsson and Mood (2008) define this social contrast mechanism as ‘a particular type of social-influence effect that explicitly builds on individuals’ conscious and sub-conscious comparisons with others in estimating their own academic capacity’. Probably the best known empirical study of the comparative influence of reference groups is the “Frog Pond” study by Davis (1966). In this study, Davis (1966) describes the high school campus as a “frog pond”, where comparative self-evaluation in terms of grade point average (GPA) influences the career choices of college and university students. The results of this study show that a high proportion of high achieving students on campus discourages students from pursuing a high-performance career.

2.3.2.2 The role of the teacher as part of the primary school

The fact that school composition effects were originally conceptualized as peer effects on students’ educational outcomes has been criticized. This is evident in Thrupp’s (2002) call for studies that examine the effect of school composition not only on peer group processes, but also on instructional and school organizational processes. To underscore this suggestion, Thrupp (2002) refers to studies that have shown how characteristics of the student body influence teachers’ instructional practices and school organization (e.g. Dreeben & Barr, 1988; Opdenakker & Van Damme, 2001; Thrupp, 1999). For example, Opdenakker and Van Damme (2001) showed how the cooperation among the teaching staff with regard to teaching methods and student counselling is higher at schools with a high mean ability and where pupils’ fathers on average have a high education level. Furthermore, the mean ability level is positively related with the process variable of ‘orderly learning environment’. This orderly learning environment is,
according to the study of Opdenakker and Van Damme (2001), in turn strongly positively related to students’ achievements in mathematics.

In addition, studies have shown that teachers adapt their practices and beliefs to the context within which they teach (Fang, 1996; Stevens & Vermeersch, 2010; Van Houtte, 2011b). For example, Stevens’ (2007) conceptual model suggests that teachers’ mental frames of reference (including their preconceptions, beliefs and attitudes) are influenced by proximal school processes (such as for example teacher-pupil and teacher-teacher interactions), which in turn are influenced by school characteristics such as school subject department cultures or the school social composition. In general, in social psychological literature, it is assumed that people’s perceptions and actions are influenced by their immediate context (e.g. Sherif, 1968). In line with this, we can argue that teachers’ behaviour and beliefs are influenced by the school as the immediate frame of reference within which they teach. Specifically with regard to educational allocation, studies have shown how high-school tracking decisions differ between schools, due to organizational exigencies (Oakes & Guiton, 1995), school composition – in terms of school size, test score variation, the relative number of minority students and students who receive free or subsidized lunch (Kelly & Price, 2011) – or unstated rules of mobility (Cicourel & Kitsuse, 1978).

Although teacher behaviour and instructional practices are acknowledged as important factors influencing student outcomes, teachers and their mediating role as both an outcome of school composition and a determinant of student outcomes have received little attention. This has led to the emergence of studies considering teacher cultural measures as ideal mediating variables between school composition and student outcomes (Agirdag, Van Avermaet, & Van Houtte, 2013; Van Houtte, 2011b). The teacher culture is thereby defined as the set of shared assumptions that teachers hold with regard to work-related beliefs and appropriate ways of acting at school (Van Houtte, 2004b, 2005). The staff culture can influence pupils both through socialization and through teachers’ classroom behaviour as the surface manifestation of teacher culture (Kemper, 1968; Schein, 1984; Van Houtte, 2004b; Wentzel, 1999). The staff culture can be seen as functioning as a normative reference group that determines what
is to be expected of students, which students will internalize (Kemper, 1968; Van Houtte, 2004b; Wentzel, 1999). In addition, the staff culture can influence pupils through teachers’ individual beliefs and visible behaviour as the surface manifestations of the teacher culture (Schein, 1984; Van Houtte, 2004b).

Teachers’ visible behaviour towards pupils is influenced by their expectations of pupils’ future performance in particular (Brophy & Good, 1970). These individual teacher expectations are in turn shaped by socialization into the staff culture of teacher expectations at school (Agirdag, Van Avermaet, et al., 2013; Brault et al., 2014; Rumberger & Palardy, 2005). However, teacher expectancy research has mostly focused on individual teacher and pupil characteristics. For example, Trouilloud (2002) argues that contextual moderators of teacher expectation effects have received little attention. In this respect, McKown and Weinstein (2008) identified high-bias classrooms (i.e. where the ethnic expectations gap is greater) as those that are characterized by a high degree of ethnic diversity and by high differential teacher treatment towards low and high achieving students. In addition, Rubie-Davis (2007, 2010) looks at teacher expectations as class-centred and identifies how high-expectation teachers create a warm instructional and socio-emotional classroom climate, for example by managing students’ behaviour positively. At the school level, a few studies have suggested that teacher expectations are shared among teachers of the same school and are related to the socio-economic and ethnic composition of the school (Agirdag, Van Avermaet, et al., 2013; Brault et al., 2014; Rumberger & Palardy, 2005). For example, Agirdag and colleagues (2013) have demonstrated that the shared perceptions of teachers concerning the teachability of their students are negatively influenced by the ethnic composition of primary schools. In addition, the authors (2013) showed that the lower teachability culture at ethnically diverse schools negatively influences student achievement because of pupils’ increased feeling of futility. Similarly, Demanet and Van Houtte (2012) show how a less positive culture of teachability among secondary school teachers increases pupils’ school misconduct, because pupils perceive lower teacher support.
It is likely that the teacher’s expectations for a pupil’s future educational performance are reflected in the educational option the teacher will recommend (de Boer et al., 2010; Timmermans et al., 2016). However, since the school and the classroom provide an immediate frame-of-reference in which the teacher forms a judgement of every pupil, the school and classroom composition will also likely influence teacher recommendations. Reference group theory (Merton, 1968) has mostly been applied to self-evaluation processes, but can also be applied to teachers’ evaluations of their pupils.

A few studies suggest that teacher expectations and recommendations are influenced by the class context in which they teach (Klapproth, Glock, Krolak-Schwerdt, Martin, & Böhmer, 2013; McKown & Weinstein, 2002; Tiedemann & Billmann-Mahecha, 2007). More specifically, research suggests that teachers are influenced by the ability, ethnic and socio-economic composition of the classroom in deciding which educational option to recommend to each individual pupil, but results are inconsistent (Klapproth et al., 2013; Kristen, 2002; Rothenbusch, Zettler, Voss, Losch, & Trautwein, 2016; Schulze, Wolter, & Unger, 2009; Tiedemann & Billmann-Mahecha, 2007; Timmermans et al., 2015; Trautwein et al., 2006). For the effect of the average ability level of the classroom on teacher recommendations, the social contrast mechanism appears particularly important (Davis, 1966; Jonsson & Mood, 2008; Van Houtte & Boone, 2012). For example, both Klapproth and colleagues (2013), and Tiedeman and Billmann-Mahechan (2007) show how teachers are less likely to recommend an academic track for secondary education, when the average ability of the pupils in their classroom is high. On the contrary, Timmermans and colleagues (2015) found a positive association between the class ability composition and the likelihood that the teacher will recommend an academic option. With regard to socio-economic composition, studies suggest that teachers are more likely to recommend an academic option if the average SES of pupils in their classroom is high (Schulze et al., 2009; Timmermans et al., 2015). On the contrary, Kristen (2002) showed a negative effect of the proportion of ethnic minority students in the classroom on the probability that teachers will recommend an academic option.
In addition, educational scholars agree that institutional characteristics and school organizational features influence the allocation process (Blossfeld et al., 2016). Studies have investigated how institutional arrangements, such as the use of standardized tests, can influence the extent to which teachers allocate their pupils in a meritocratic way (Bol, Witschge, van de Werfhorst, & Dronkers, 2014; Luyten & Bosker, 2004). However, less attention has been paid to how these institutional arrangements are reflected in school-specific policies that influence educational allocation. Nevertheless, studies suggest that school features, and day-to-day practices in schools influence the allocation decisions of teachers (Cicourel & Kitsuse, 1978; Gillborn & Youdell, 2000; Kelly & Price, 2011; Oakes & Guiton, 1995). School policy is an important organizational feature of the primary school but its effects on non-cognitive student outcomes are rarely studied quantitatively (Kyriakides, Creemers, Antoniou, & Demetriou, 2010; Van Petegem, Devos, Mahieu, Kim, & Warmoes, 2005).

With regard to educational allocation, a school’s policy can include the extent to which the school encourages teachers to professionalize in educational allocation by providing a clear vision and opportunities to collaborate on this matter. For example, research has shown that teachers’ self-directed learning is influenced by organizational learning goals set by the school, and by the provision of opportunities for learning and for teacher collaboration (Louws, Meirink, van Veen, & van Driel, 2017). This way, the attention paid to educational allocation as part of the school policy could influence teachers’ allocation practices. This can come about through, for example, influencing the extent to which class-related criteria (such as parental involvement) are taken into account in teachers’ recommendations. In addition, the extent to which teachers are supported in formulating an educational recommendation, for example by deliberately discussing it with colleagues, can influence teachers’ sense of self-efficacy in formulating an educational recommendation.

2.3.2.3 Remaining shortcomings of school effectiveness research

Despite the development from the originally narrow input-output models to the increasingly complex CIPO-models, school effects research suffers from some remaining
shortcomings. In answer to the recurrent criticism that many school effectiveness studies lack a profound theoretical basis, school effectiveness scholars have mostly used organizational theories – most notably contingency theory – as a framework for analysing the results of contextually sensitive school effectiveness studies (Creemers, Scheerens, & Reynolds, 2000; Thrupp, 2001). However, Thrupp (2001) argues that this provides an insufficient theoretical foundation for school processes. In addition, the way the notions of school ethos and school climate were used to provide a theoretical basis for early school effectiveness studies has been criticized for being too pragmatic (Goldstein & Woodhouse, 2000). According to Thrupp (2001), school effectiveness research would benefit from including theories from various disciplines, most notably theories from the sociology of education. Lacking a theoretical knowledge base, quantitative studies in the school effectiveness tradition have been criticized for generating a list of effective school correlates based on common sense, but with scant theoretical argumentation (Coe & Fitz-Gibbon, 1998).

Although the entire field of school effectiveness research has made attempts to investigate student outcomes beyond cognitive achievement (e.g. Mortimore & Sammons, 1987), the dominance of student achievement as the outcome variable remains characteristic of most school effects literature. Mortimore and Sammons (1987) introduced social outcomes of education such as students’ behaviour, their self-concept and their attitudes towards school. Contemporary studies that look at non-cognitive student outcomes have built on these social outcomes of behavioural and attitudinal nature, and consider for example school misconduct (Demanet & Van Houtte, 2012), educational aspirations (Frost, 2007; Goldsmith, 2004; Kauppinen, 2008) and academic self-concept (Marsh, 1987).

Nevertheless, school effectiveness research has in general been driven by the assumption that improving student achievement is the primary goal of school effectiveness. In this respect, Creemers (1994) defines the concept of school effectiveness as comprising two dimensions, a quality dimension and an equity dimension. The quality dimension of school effectiveness looks at average student outcomes (e.g. average student achievement) and examines whether these are higher
Theoretical framework

or lower than what could be expected based on student input variables (e.g. the socio-economic school context). This way, school effectiveness offers a “one-size-fits-all model”, in which schools are assumed to be equally effective for every student. However, the equity dimension focuses on the gap in student outcomes (e.g. the gap in student achievement) according to different input variables (e.g. SES). The equity dimension of school effectiveness looks at which school characteristics reduce or enlarge this gap. From this viewpoint, an effective school compensates for a lack of cultural or social resources at home. Creemers (1994, p. 12) defines the compensatory power of schools as ‘the hypothesized influence of schools to interact in the relationship between student input and student output’. However, most studies in school effectiveness research have so far focused on the quality dimension and few studies have considered school effects on the equity dimension of school effectiveness. This is apparent in the fact that effectiveness factors and school process variables are primarily related to the quality of instruction, enhancing students’ academic progress, for example, intellectually challenging teaching (Mortimore & Sammons, 1987) or teaching staff cooperation and orderly learning environment (Opdenakker & Van Damme, 2001).

Reynolds and colleagues (2000b) argue that, even by the end of the 1980s, Australian researchers were concerned that educational issues such as equality and social justice were likely to be overlooked due to the dominant focus on student achievement. With regard to equality of educational opportunity, though, we have seen in section 2.1 that this is not only determined by unequal student achievement (i.e. the primary effect), but also by differing educational choices at branching points in education (i.e. the secondary effect). School effects studies on educational choice are, however, scarce and have paid little attention to school processes, or to school characteristics other than compositional measures.
3.1 Research goal

Several studies have demonstrated the importance of analysing choice for understanding educational inequality, by showing that a pupil with a lower socio-economic background is more likely to choose a less academically oriented track in secondary education than an equally able pupil with a higher socio-economic background (Flanders, Belgium: Boone & Van Houtte, 2012; Germany: Ditton & Krüsken, 2006; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009; Italy: Ress & Azzolini, 2014). Theoretical developments that explain the secondary effect of social class (Boudon, 1974) have been preoccupied with the significance of parental background. Cultural reproduction theory (Bourdieu & Passeron, 1977), social capital theory (Coleman, 1988), and rational choice theory (Boudon, 1974) have mostly developed concepts and mechanisms that are primarily situated within the family.

Nevertheless, the role of the teacher in allocating pupils to tracks has been acknowledged by previous studies (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner et al., 2009). Studies investigating the role of teachers in educational allocation have focussed on the extent to which teacher recommendations are meritocratic or biased by pupils’ social background (Dollmann, 2016; Driessen et al., 2008; Luyten & Bosker, 2004; Schneider, 2011). These studies have shown that teacher recommendations are biased by pupils’ socio-economic and ethnic background. Pupils with a higher SES and of the ethnic majority are more likely to be advised to enrol in an academic, more demanding track, irrespective of achievement. These findings has led Hartmut Esser (2016) to suggest the existence of a tertiary effect
of social class, conceptualizing teachers’ differing expectations, evaluations and recommendations towards pupils of different social background in the process of allocating pupils to tracks. However, since the tertiary effect is a newly introduced concept, few studies have theoretically elaborated on, and investigated the mechanisms of the tertiary effect. Moreover, studies that investigate the role of the teacher in educational allocation at the transition from primary to secondary education have paid little attention to features of the primary school. At the same time, school effects studies on educational decision-making have been preoccupied with school context effects and have paid little attention to the role of the teacher. This is despite the fact that studies suggest that the school and classroom context influences teachers’ expectations, evaluations and recommendations (Brault et al., 2014; Tiedemann & Billmann-Mahecha, 2007; Trautwein et al., 2006).

Therefore, the central aim of this dissertation is to investigate the role of the teacher, as part of the primary school, in educational decision-making. This research goal contributes to existing literature in three ways. First, investigating how teachers influence educational decision-making adds to previous research that has mostly been concerned with the role of parents in educational choice. Second, acknowledging that teachers are influenced by the school context within which they operate, adds to existing studies on the role of the teacher in educational allocation that have been neglecting the school context. Third, a focus on school processes adds to existing school effects studies on educational decision-making that have previously been preoccupied with the study of peer effects.

The conceptual model presented below (see Figure 1), graphically displays the central aim of this dissertation. At the bottom of the model, the primary, secondary and tertiary effect of social class are displayed. The primary effect of social class (1) denotes the influence of a student’s background on his/her ability (Boudon, 1974). The secondary effect of social class (2) represents the influence of a student’s background on educational choice, over and above the impact of the student’s ability (Boudon, 1974). Lastly, the tertiary effect of social class (3) shows how the teacher (and his/her expectations, recommendations and evaluations) can mediate the relationship between
student background and educational choice (Esser, 2016). However, the teacher is part of, and influenced by the broader context of the primary school (see school context) (Fang, 1996; Stevens & Vermeersch, 2010; Van Houtte, 2011b). In addition, school processes related to the school context (for example, the culture of teacher expectations) are expected to influence the teacher in his/her role in educational decision-making. Lastly, the school context can also influence students’ educational choices in a direct way (Goldsmith, 2004; Jæger, 2007; Kauppinen, 2008).

**Figure 1** Conceptual model

3.2 Research questions

It was suggested that teacher expectations can influence educational decision-making in two ways. First, they influence pupils’ and parents’ subjective evaluation of the probability to succeed in a specific educational option. This argument is supported by studies suggesting that teacher expectations influence pupils’ aspirations and their self-perceived competence (Byun et al., 2012; Jussim, 1989; Trouilloud et al., 2002). In addition, studies have shown that expectations can develop into a shared culture of teacher expectations that is influenced by the school’s ethnic composition (Agirdag, Van Houtte, & Van Avermaet, 2013; Brault et al., 2014). Since research has shown that
shared teacher expectations are lower at ethnically diverse schools (Agirdag, Van Houtte, et al., 2013; Brault et al., 2014), but also that pupils’ educational aspirations are higher at these schools (Frost, 2007; Goldsmith, 2004), research should consider how the culture of teacher expectations in ethnically diverse schools influences pupils’ educational choices. Therefore, the first empirical study investigates the influence of the primary school’s ethnic composition on pupils’ educational choices and analyses whether its effect is mediated by the culture of teacher expectations (see Figure 2).

Below, the general conceptual model is presented in relation to each empirical study. The black solid lines display the main focus of each study, while the dotted lines were not investigated in the study in question. The solid lines in grey display relationships that were either empirically tested or theorized as part of the research framework, but that were not the main focus of the study.

**Figure 2 Conceptual model Study 1**

A second way in which teacher expectations can influence educational decision-making is through the provision of the teacher recommendation, which is most likely based on the teacher’s expectations for a pupil’s future performance (de Boer et al., 2010; Timmermans et al., 2016). Studies that investigate the role of the teacher in educational
allocation have paid little attention to the class and school context within which the teacher operates. Therefore, the following two empirical studies investigate how teacher recommendations are influenced by the class composition and by the extent to which the school denotes educational allocation as an explicit part of the school policy.

Research suggest that the classroom composition influences teachers’ educational recommendations, but results are inconsistent (Klapproth et al., 2013; Kristen, 2002; Rothenbusch et al., 2016; Schulze et al., 2009; Tiedemann & Billmann-Mahecha, 2007; Timmermans et al., 2015; Trautwein et al., 2006). Based on previous research, we can however expect that three class compositional measures are of particular importance for teacher recommendations: ability, SES and ethnic composition. Thus, the second study aims to gain more insight into how teacher recommendations are formulated in relation to the classroom composition, in terms of pupils’ ability, SES and ethnicity (see Figure 3 below).

Figure 3 Conceptual model Study 2
Studies on school-based professional development suggest that the organizational learning goals set by the school influence the direction of teachers’ learning (Coburn, 2001; Louws et al., 2017). Research on teacher recommendations has paid little attention to the role of school policy, although the extent to which the school pays explicit attention to educational allocation could raise teachers’ awareness of the social bias in teacher recommendations. The third empirical study examines whether teachers’ perceptions of the school’s explicit attention to educational allocation, in terms of providing opportunities to professionalize and cooperate on this matter, influence the social bias in teacher recommendations (see Figure 4 below).

**Figure 4 Conceptual model Study 3**

Finally, when knowing how the teacher recommendation is formulated and framed within the frame of reference of the class and the school, the question that inevitably pops up is how this teacher recommendation is communicated to, and received by parents. Since parents enjoy a great deal of discretion in educational decision-making in choice-driven systems, their perception of having received an educational recommendation indicates the extent to which the teacher recommendation offers an important aid in educational choice, and a possible corrective force for parental
aspirations (de Boer et al., 2010; Ditton & Krüsken, 2006; Ditton et al., 2005; Dollmann, 2011). Research on teacher recommendations has however paid little attention to the actual communication of the teacher recommendation in interaction with parents, while studies indicate that the type of recommendation given by the teacher can be a source of conflict or debate (Barg, 2012; Elbers & de Haan, 2014). Since previous studies have shown that teachers’ sense of self-efficacy influences the extent to which teachers discuss their teaching program with parents (Hoover-Dempsey et al., 1987), we can expect that teachers’ self-efficacy is of particular importance for the parent-teacher interaction on educational decision-making. Therefore, the last empirical study investigates how teachers engage with parents in communicating their educational recommendation and how this relates to both parents’ experience of educational decision-making and the teacher’s sense of self-efficacy in formulating an educational recommendation (see Figure 5 below).

**Figure 5** Conceptual model Study 4
The Flemish education system provides a particularly interesting context to study the secondary and tertiary effect of social class. Compulsory education in Flanders starts at age 6 with a comprehensive primary education, and ends at age 18, upon completion of the sixth year of secondary education. The transition to secondary education usually occurs when pupils are twelve years old, which is particularly early compared to other education systems in Europe (for example: Denmark, age 16; France, age 15; Italy, age 14; Spain, age 16) (OECD, 2013). Secondary education lasts six years and is divided in three grades that each encompass two years and entail increasing differentiation (see Figure 6 below).

Officially, the first two years of secondary education do not include tracks, they are broad and comprehensive, to minimize the impact of this early transition on future educational choices. At the beginning of secondary education, students and their parents can officially only choose between A- or B-stream. B-stream is meant for pupils who have been experiencing prior study difficulties, who are deemed less able for theoretically oriented education, or who did not obtain the certificate of primary education (Department of Education, 2008). Previous research has shown that the choice for B-stream is almost entirely determined by pupils’ prior performance, and is often based on an explicit recommendation by the teacher (Boone & Van Houtte, 2010). The majority of pupils enters A-stream, which, in theory, provides a comprehensive curriculum, said to prepare for all future educational options. However, in reality, within the first grade of A-stream, students and their parents have to choose between at least four optional courses: Latin, modern sciences, technology and arts.
Starting from the third year of secondary education (the beginning of the second grade), grades are organized in accordance with four educational tracks: academic or general, technical, arts and vocational education. At the end of first grade, after two years of secondary education in one of the optional courses, pupils who finished A-stream, can choose between each of the four educational tracks. However, the optional courses available in first grade are each seen as specifically preparing for one of the educational tracks starting from second grade. This is because the first grade of secondary education is organized complementary to the tracks offered in the second grade. Latin and modern sciences are perceived to prepare for the more prestigious academic track, technology would prepare for technical education and arts for artistic education. This entails that path dependencies clearly exist. Therefore, the first choice at age 12 already comprises diverse educational opportunities that define future educational choices, against official efforts to offer a comprehensive and broad curriculum in first grade. This is also apparent in the fact that many secondary schools offer only one or two educational tracks, leading to the existence of academic schools, technical/vocational schools and vocational schools (Van Houtte, Demanet, & Stevens, 2012).

In public opinion, a strong hierarchy exists between the four educational tracks. The distinction that Jaeger (2009) makes between vocational and academic education, is equally applicable to the Flemish education context. On the one hand, vocational education is defined by Jaeger (2009, p. 1951) as “cultural capital light” because of its practical rather than academic character and because it leads to relatively low-status occupations. On the other hand, upper secondary education is defined by Jaeger (2009, p. 1951), as “cultural capital heavy” because it is highly academic and constitutes a gateway to higher education and high-status occupations. A Flemish study by Boone and Van Houtte (2013a) shows that pupils have internalized this perceived hierarchy between the educational tracks and perceive of Latin as the most prestigious option and as the reference point. In addition, research on tracking has shown that tracks do not only differ in subject material, but also in how this subject material is dealt with by teachers (for an overview of studies, see: Van Houtte, 2004b). This research strand generally concludes that the curriculum is taught in a less challenging way in the
vocational track. Due to the hierarchical structure of secondary education, and due to the fact that upward mobility between tracks is virtually non-existent (so called “cascade system”), pupils and their parents are often preoccupied with aiming as high as possible (Van Houtte, 2011a). Officially, switching back and forth between every educational track is possible, but in practice pupils almost exclusively “fall back” from academic to technical or vocational education (Van Damme et al., 1997).

The Flemish system can be characterized by what Blossfeld and colleagues (2016) call “an open-choice model”, since the ultimate responsibility for decision-making lies with the family. According to Boudon (1974) the secondary effect of social class is greater when the family, and not only the pupil, is involved in the decision-making process. In Flanders, parental aspirations play an important role in educational decision-making, since pupils are 12 years old when making the transition from primary to secondary education. While parents hold a great deal of discretion in educational decision-making, an informal and non-binding educational recommendation of the teacher is the only official and individual advice offered by educational professionals in the allocation process. Although an important source of information for pupils and parents, there are no official guidelines on how to formulate an educational recommendation and on which criteria to take into account. Overall, the process of educational allocation at the transition to secondary education is loosely organized with few formal regulations. There are no centrally administered standardized tests and track placement relies heavily on teachers’ and parents’ judgement of pupils’ abilities (Boone & Van Houtte, 2013b). Due to the minimal central regulations, schools and teachers enjoy a lot of autonomy in organizing educational allocation for pupils and their parents. Therefore, especially in the Flemish education system, studying the secondary and the tertiary effect could enhance our understanding of inequality in educational opportunity.
Figure 6 Flemish education system

PRIMARY SCHOOL

6 years
(age 6-12)

SECONDARY SCHOOL

A-STREAM
+optional course
2 years
+Latin
+modern sciences
+technology
+arts

B-STREAM
2 years

SECONDARY SCHOOL

(1st grade)

(2nd and 3rd grade)

TERTIARY EDUCATION

General education (4 years)

Technical education (4 years)

Artistic education (4 years)

Vocational education (4 years)
(+1)

University
(4 or 5 years)

College of higher education
(3 or 4 years)

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5.1 Data

5.1.1 The research project

In order to answer each research question as introduced above, quantitative and qualitative data were collected as part of a broader research project called Transbaso, funded by VLAIO (Flemish Agency for Innovation and Enterprise). Transbaso is a large-scale interuniversity project that studied educational choice with specific attention to all stakeholders involved: pupils, parents and their teachers. The project’s research goal was to study the underlying processes and mechanisms of educational choice at the transition from primary to secondary education in Flanders.

5.1.2 Sample

Data were collected in 36 schools, sampled in the Flemish cities of Ghent and Antwerp. These two cities were chosen because of their urban character and the high level of social and ethnic diversity in their schools. Since the research project was particularly interested in studying educational choice for low SES and immigrant pupils, it was important to select schools with a diverse socio-economic and ethnic composition. In addition, these two cities provide interesting case-studies for the topic of educational decision-making because their schools were characterized by high percentages of unqualified school leavers in 2010 (Antwerp: 26%, Ghent: 19%, Flanders: 13.9%) (Van Landeghem, De Fraine, Gielen, & Van Damme, 2013). Studying educational choices of pupils in these cities can contribute to our understanding of this high risk of early school
leaving, by examining how pupils’ early choices – that largely determine their future educational trajectories – are made.

In the sampling of schools, the complex nature of the Flemish education system was taken into account. All schools in Flanders are state-subsidized but the majority of schools are private (not organized by the authorities) and mostly Catholic. Primary schools within Ghent and Antwerp were selected using multistage sampling, based on two criteria: school denomination (public or private schools) and percentage of low SES pupils. Information on these two criteria for all schools in Ghent and Antwerp was based on the official school dataset of the Flemish Department of Education and Training (2015). The primary schools in Ghent and Antwerp were first divided in public schools and private, Catholic schools. Then, we divided each group of schools in three equally sized groups according to their percentage of pupils with a lowly educated mother. Based on the percentage of pupils whose mother is poorly educated, three groups of schools were created for each sector within each city: schools in the lowest 33% (L), schools in the average 33% (A), and schools in the highest 33% (H) (see Figure 7). Finally, three schools were randomly selected out of each of these three groups within every sector for Ghent and Antwerp. This sampling method provides a sample of schools that contains an equal amount of public and private schools, meanwhile maximizing the ethnic and socio-economic diversity of the schools included. The final sample contains 18 schools within each city, consisting of 9 public and 9 private schools. Thus, in general, 18 schools of each denomination were selected (thereby oversampling public schools). Of these 18 schools per denomination, 6 schools include a high percentage of low SES pupils (H), 6 schools have an average percentage of low SES pupils (A) and 6 school are characterized by a high percentage of low SES pupils (H).
The selected schools were contacted by an invitation letter, by a reminding email and later on by telephone. In case of refusal to participate in the research project, a corresponding school from a second sample was contacted. Four random samples were drawn in Ghent and five in Antwerp. In total, 76 schools were contacted in order to reach the intended number of 36 schools for the research project. Thus, the response rate of all contacted schools was 47.37%. In Ghent, 39 schools were contacted of which 21 rejected and 18 were willing to participate; the response rate for Ghent was 46.15%. In Antwerp, 37 schools were contacted of which 19 denied participation and 18 answered positively to our request to participate; the response rate for Antwerp was 48.65%. Rejection to participate in the research project was mostly due the high number of requests to urban schools for participating in research projects, and to the high workload for teachers and principals in general. In all participating schools, written questionnaires were distributed for sixth-grade pupils, their parents and teachers.

In addition, out of the entire sample of Transbaso schools, one school in Ghent was purposefully selected for an instrumental case-study (Stake, 1995). In this school, qualitative data were collected. The school in question was selected because of its mixed socio-economic and ethnic background and its explicit approach in communicating an educational recommendation to parents (for a more detailed account of this approach, see Section 6.4.6.2).
The proportion of each group of schools in our sample, based on the two criteria, is not in accordance with the distribution in the entire population of primary schools in Flanders. Thus, the sampling method is disproportionately stratified (Billiet & Waege, 2003). This implies that analyses on these data do not provide results that are representative of the entire population. However, this sampling method facilitates a comparison between schools with diverging ranges of low SES pupils, and allowed us to obtain a picture of educational decision-making in diverse schools in urban areas. For a more detailed picture of descriptive characteristics of the pupils and parents in our sample, see Section 5.2.2 below.

5.1.3 Data collections

In this dissertation quantitative data of 1049 sixth-grade pupils, collected in May 2015, and of 1128 parents, collected in May 2016, are used. Before every data collection, the sixth-grade teacher received a letter for every pupil’s parents informing them about the research project and asking them for consent in a passive way. Parents who did not want to participate in the research project, had to notify the teacher on this by signing a form included with the letter. Pupils filled in the questionnaire in the classroom, in the presence of at least one researcher. This researcher explained the purpose of the questionnaire, assured pupils that their responses would be treated confidentially, and emphasized that there were no right or wrong answers. The presence of the researcher ensured consistency in the answers to pupils’ questions about the survey. We obtained a response rate of 95.6% for this pupil questionnaire of May 2015. Out of a total of 1086 pupils that where eligible to fill in our questionnaire, 37 were absent at the time of survey-completion.

For parents, data of May 2016 were used. The questionnaire for parents was distributed via the sixth-grade pupils. When the researcher was present in the classroom, he/she distributed the parent-questionnaires to the pupils, while inquiring them to ask one of their parents to fill in the questionnaire. In addition, this was discussed with the sixth-grade teacher, who mostly agreed to remember the parents about this and to collect these questionnaires. In May, 2016, the questionnaire for parents was completed by a
total of 1044 parents out of the 1128 parents that received the questionnaire: a response rate of 92.55%.

In addition, in May 2015, 471 primary school teachers filled in a written questionnaire that was distributed by the principal or a staff member of the school. For the sixth-grade teacher in particular, an additional questionnaire was distributed. In this questionnaire, sixth-grade teachers were asked to rate every pupil in his/her classroom on a number of characteristics (for example, cognitive skills, study attitude, parental support). Moreover, the sixth-grade teacher was asked to indicate which educational option he/she would recommend to every pupil in his/her classroom. Because this was very time consuming for some teachers, they received an incentive for filling in this questionnaire. In both datasets, all of the sixth-grade teachers completed this questionnaire: 61 in May 2015 and 65 in May 2016. The sixth-grade teacher received this questionnaire from the researcher. Some sixth-grade teachers immediately started filling in this questionnaire while the researcher supervised the students. This probably lead to the excellent response rates that were obtained for these sixth-grade teacher surveys: 100% for both datasets.

Qualitative data were collected in a case-study school in Ghent, through a combination of observations and in-depth interviews. In this school, 40 parent-teacher conferences in sixth grade were observed at two moments in time: in November 2015 and in February-March 2016. In addition, a formal staff meeting preceding and preparing the parent-teacher conference in February-March 2016 was observed. Out of the 40 parent-teacher conferences, 14 parents were selected for an in-depth interview. This selection was driven by the aim of involving a mix of parents based on three criteria: first, the parents’ socio-economic background; second, their progress in the process of educational decision-making; and third, their child’s achievement. Since two parents were absent during the second parent-teacher conference, 38 parent-teacher conferences were observed in February-March 2016 of which 12 parents were interviewed.
5 Methodological framework

5.2 Variables

5.2.1 Dependent variables: Educational decision-making

We assume that students, parents and teachers make a series of binary choices in deciding which educational option to choose or to recommend at the transition to secondary education (see Figure 8). First, we can distinguish between the recommendation or the choice for A- or B-stream. However, since previous Flemish research has shown that opting for B-stream is almost entirely dependent on school performance (Boone & Van Houtte, 2010), we do not investigate the determinants of the choice or recommendation between A- or B-stream. In addition, pupils that would receive the recommendation for B-stream are often already directed towards the B-stream from the fifth grade on, for example on the basis of study difficulties. This means that these pupils are not included in our samples that contain data from sixth-grade pupils. Moreover, since the probability distribution of the recommendation for A stream (93.7%) or B-stream (6.3%) is very skewed (see Table 1), investigating this binary distinction would be problematic.

Educational recommendation

To obtain a measure for educational recommendation, the sixth-grade teachers were asked to indicate which educational alternative they would recommend in the first year of secondary education for every individual pupil in his/her class. Educational recommendation was studied in two steps, in which we consider two different dichotomous dependent variables. Within A-stream, we distinguished between the theoretical options that are perceived to precede general secondary education (Latin and modern sciences (74.4%)) and the practical options perceived to precede technical or arts secondary education (technology and arts (25.6%)). Within the recommendation for the academic options of A stream, we distinguish between Latin (35.3%) and modern sciences (64.7%).
Educational choice

For educational choice, we used a slightly different logic. Within the A-stream, we also distinguish between the academic options that are perceived to precede general secondary education (Latin and modern sciences (70.5%)) and those practical options that are perceived to precede technical or artistic secondary education (technology and arts (14.8%). However, even though the questionnaires were completed at the end of sixth grade, 14.8% of the entire sample of students had not made their choice by May 2015. Including these students into the analyses, does not only diminish the possible disturbing effect of these missing values, it can also produce useful insights into the decision-making process of pupils and their parents. That is, it allows us to investigate which characteristics explain late decision-making (diminishing the probability to get enrolled in the school of choice). Therefore, we also included those pupils who had not made their choice, as a distinct category of the dependent variable. The dependent variable of educational choice thus consists of three categories: the undecided (14.8%), the academic option (70.5%), and the practical option (14.8%).

Parents’ perceptions of having received an educational recommendation

To take into account parents’ perceptions of receiving an educational recommendation, the last empirical study investigates the determinants of parents’ perception of having received an educational recommendation from the teacher. This was measured by simply asking the parent whether or not they had received an educational advice from
the primary school at the transition to secondary education. In May 2016, 49.8% of the parents indicated they had not received an educational recommendation, while 50.2% indicated they did (N= 1009).

Table 1 Descriptive statistics: educational decision-making

<table>
<thead>
<tr>
<th>Educational recommendation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>A- or B-stream</td>
<td>996</td>
</tr>
<tr>
<td>B-stream</td>
<td>6.3%</td>
</tr>
<tr>
<td>A-stream</td>
<td>93.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options within A-stream</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical</td>
<td>25.6%</td>
</tr>
<tr>
<td>Academic</td>
<td>74.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options within the Academic track</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin</td>
<td>35.3%</td>
</tr>
<tr>
<td>Modern sciences</td>
<td>64.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational decision-making</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undecided</td>
<td>14.8%</td>
</tr>
<tr>
<td>Practical option</td>
<td>14.8%</td>
</tr>
<tr>
<td>Academic option</td>
<td>70.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perception of having received advice</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>50.2%</td>
</tr>
<tr>
<td>No</td>
<td>49.8%</td>
</tr>
</tbody>
</table>

5.2.2 Independent variables: Pupils’ and parents’ background characteristics

Socio-economic status

Pupils’ socio-economic status was based on the current occupation of both parents. In case of unemployment, previous occupation was used. The parental occupations were recoded according to two internationally known indices. Erikson, Goldthorpe and Portocarero’s classification (EGP) (1982) was used to create eight categories of
occupations, based on similar labour market and work situations. In the sample of May 2016 the eight categories were recoded into four categories often used in sociological research: working class or unemployed parents (25.7%), lower middle class parents (18%), middle class parents (33%) and upper middle class parents (23.3%) (see Table 2). However, the EGP-classification has the disadvantage that it does not adequately include job specific aspects that influence social status or social prestige, such as for example job sector (Reynders, Nicaise, & Van Damme, 2005).

Therefore, the EGP classification was supplemented by the International Socio-economic Index of Occupational Status (ISEI) of Ganzeboom, De Graaf, Treiman, & De Leeuw (1992). This index assigns prestige scores to occupations based on a revision of the SEI (Socio-economic Index) classification. The ISEI offers a continuous approach to occupational stratification which facilitates multivariate analyses. Moreover, it presents an internationally comparable index that takes into account the influence of educational attainment on occupational status. Scores on ISEI can range from 0 to 100, and in our samples of May 2015 they range from 11.74 (equals manual labour without schooling in agricultural sector) to 88.96 (equals judge). To obtain a measure for family SES, the highest score of both parents was used for both occupational indices. The mean ISEI score of pupils in the sample of May 2015 is 51.82 with a standard deviation of 23.38. Because the ISEI scores offer a more detailed classification of occupations, and because its continuous nature facilitates multivariate analyses and interpretations, three of the four empirical studies use the ISEI classification. In the last empirical study, the EGP classification was used because of its compatibility with the qualitative data.

**Ethnicity**

Pupils’ ethnic background was based on their maternal grandmother’s birthplace, similar to most sociological research in the Netherlands and Belgium (Jacobs, Rea, Teney, Callier, & Lothaire, 2009; Timmerman, Hermans, & Hoornaert, 2002). Based on the birthplace of the maternal grandmother, nine ethnic groups were created: Belgium and North-Western Europe (58.3%), Eastern Europe (7.3%), Maghreb (18.3%), Turkey (6.5%), Asia (3.4%), Sub-Saharan Africa (3.7%), Mid- and South-America (0.7%), the Middle East (0.8%), and Southern Europe (1%). Pupils with a maternal grandmother born
Methodological framework

In Belgium or a North-Western European country were seen as ethnic majority pupils (coded 0) (58.3%), pupils with a maternal grandmother born in other countries were seen as ethnic minority pupils (coded 1) (41.7%). The birthplace of maternal grandmother was used because research has shown that second or third generation pupils are still disadvantaged in education and on the labour market, compared to native pupils (Hammerstedt, 2009; Timmerman, Vanderwaeren, & Crul, 2003). Moreover, the OECD report on the latest PISA results (OECD, 2016, p. 244), classifies Belgium based on its immigrant population as a ‘long-standing destination country with many settled, low-educated migrants’. This means that immigration is not a new phenomenon but is mostly due to guest workers coming to Belgium after World War II and settling permanently, resulting in a high share of second- and third-generation immigrant students. It is important to take this profile of the immigrant student population into account in educational research.

Table 2 Descriptive statistics: pupils’ and parents’ background

<table>
<thead>
<tr>
<th></th>
<th>Mean (standard deviation) or percentage</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pupils – May 2015 (N= 1049)</td>
<td>Parents – May 2016 (N= 1044)</td>
<td></td>
</tr>
<tr>
<td>SES (ISEI)</td>
<td>51.82 (23.38)</td>
<td>55 (22.32)</td>
<td>11.74-88.96</td>
</tr>
<tr>
<td>SES (EGP)</td>
<td>N= 988</td>
<td>N= 996</td>
<td></td>
</tr>
<tr>
<td>Working class/unemployed</td>
<td>31.2%</td>
<td>25.7%</td>
<td></td>
</tr>
<tr>
<td>Lower middle class</td>
<td>22.9%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Middle class</td>
<td>19.1%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Upper middle class</td>
<td>26.8%</td>
<td>23.3%</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>N= 984</td>
<td>N= 1041</td>
<td></td>
</tr>
<tr>
<td>Native</td>
<td>58.3%</td>
<td>59.1%</td>
<td></td>
</tr>
<tr>
<td>Immigrant</td>
<td>41.7%</td>
<td>40.9%</td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>42.06 (6.50)</td>
<td></td>
<td>13-55</td>
</tr>
<tr>
<td>Gender</td>
<td>N= 956</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girl</td>
<td>51.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>48.7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ability
Due to the absence of nationwide standardized tests, pupils’ ability was operationalized by means of a standardized Raven test, measuring pupils’ capacity for abstract reasoning. This test is a non-verbal capacity test of 60 items that measures pupils’ capacity for problem solving. Each correct answer is awarded one point, so theoretically pupils’ scores could range from 0 to 60. In our sample of May 2015, the minimum score on the Raven test was 13, and the maximum score was 55. The average test score for the pupils in the sample of May 2015 is 42.06 with a standard deviation of 6.50.

Gender
In the first three studies, analyses control for pupil’s gender, because research has shown that gender affects educational choice (Beattie, 2002). In the sample of May 2015, 51.3% of the pupils are girls, while 48.7% are boys.

5.2.3 Independent variables: School composition and school processes

School and classroom composition
With regard to school or classroom composition, three variables are of interest: SES composition, ethnic composition and ability composition. These school and classroom context variables were systematically operationalized by aggregating individual background variables to the school or classroom level. School socio-economic composition was operationalized as the mean of pupils’ ISEI-score per school. The lowest mean SES per school was 24.10, and the highest was 68.73, based on data of May 2015 (See Table 3). The mean score for SES composition was 51.27 with a standard deviation of 11.69. A school’s ethnic composition was operationalized as the percentage of ethnic minority students per school. The minimum percentage of immigrant students is 0, and the maximum is 100, based on data of May 2015. The mean percentage of immigrant students is 40.49 with a standard deviation of 26.47. The socio-economic and ethnic context of the classroom were calculated in the same way but at the classroom level. The lowest mean SES per class is 24.10, and the highest mean is 74.20. The mean SES composition of the classroom is 51.28, with a standard deviation of 12.43. The mean ethnic classroom composition is 42.23, with a standard deviation of
28.16, a minimum of 0 and a maximum of 100. Ability composition was used only as a classroom context variable, since it is more conceivable that teachers compare their students with other students in the classroom than with other students in the entire school. Pupils’ individual ability scores were aggregated to the classroom-level to obtain a measure for the average ability per classroom. The mean ability composition of the classroom was 41.42, with a standard deviation of 2.72, a minimum score of 35.40 and a maximum score of 46.45.

Table 3 Descriptive statistics: school and classroom composition

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCHOOL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES composition</td>
<td>51.27</td>
<td>11.69</td>
<td>24.10</td>
<td>68.73</td>
</tr>
<tr>
<td>Ethnic composition</td>
<td>40.49</td>
<td>26.47</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td><strong>CLASSROOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES composition</td>
<td>51.28</td>
<td>12.43</td>
<td>24.10</td>
<td>74.20</td>
</tr>
<tr>
<td>Ethnic composition</td>
<td>42.23</td>
<td>28.16</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Ability composition</td>
<td>41.42</td>
<td>2.72</td>
<td>35.40</td>
<td>46.45</td>
</tr>
</tbody>
</table>

Culture of teacher expectations

To transcend the original input-output model of school effects research, school process variables were introduced in the empirical studies. The culture of teachers’ expectations is operationalized as an aggregation of individual teacher scores on their expectations of the pupils in their school. This aggregation is based on the mean score of teacher expectations per school, as is common in studies considering school cultural measures (Hofstede, Neuijen, Ohayv, & Sanders, 1990; Van Houtte, 2004b). This aggregation was tested for legitimacy based on an intra-class correlation, calculated through a one-way analysis of variance (ANOVA). An analysis of between- and within-school variances indicates whether an individual teacher characteristic can reliably be seen as shared by members of the same school. In the case of teacher expectations, the one-way analysis
of variance showed that the mean value of teacher expectations differs significantly between schools (F = 6.793, p < 0.001). Aggregation of individual teacher variables is legitimized by an intra-class correlation (ICC) of at least 0.60 (Between Mean Square - Within Mean Square/Between Mean Square) (Glick, 1985; Shrout & Fleiss, 1979). An ICC of at least 0.60 implies that the mean of the individual teacher measure can be treated as reflecting a school characteristic, since the variation between schools is greater than the variation within schools. For teacher expectations is supported by an ICC of 0.85.

Individual teacher expectations were measured by a standardized five-point scale that consists of three items (totally disagree to totally agree). These items measure the expectations that teachers held concerning their pupils’ future success. The three items are: ‘I expect most of my pupils will perform well in their future school career’, ‘I expect most of my pupils to perform well in secondary education’, and ‘I think most students will find their way in life’. Cronbach’s alpha for this scale was sufficient (0.804) (see Table 4). The three items were summed up and the individual scores of teachers were aggregated to form a measurement of the culture of teachers’ expectations at school. This variable ranges from 8.18 to 12.36 and has a mean of 11.27 and a standard deviation of 0.84, based on the sample of May 2015.

**Table 4** Descriptive statistics: school process variables

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum-Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture of teacher expectations</strong></td>
<td>0.804</td>
<td>11.27</td>
<td>0.84</td>
<td>8.18 - 12.36</td>
</tr>
<tr>
<td>May 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School policy</strong></td>
<td>0.828</td>
<td>16.96</td>
<td>1.26</td>
<td>14.18 - 20.71</td>
</tr>
<tr>
<td>May 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teacher’s sense of efficacy</strong></td>
<td>0.820</td>
<td>27.77</td>
<td>2.92</td>
<td>14 - 35</td>
</tr>
<tr>
<td>May 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
School policy on educational allocation

Because teachers are important mediators between policy and practice, we chose to operationalize school policy in terms of teachers’ perceptions (Brain, Reid, & Boyes, 2006). A school’s specific policy on educational allocation was operationalized as teachers’ perceptions of the school as paying explicit policy attention to educational allocation. Teachers’ perceptions are preferred over more objective measures because previous studies point to the importance of teachers’ perceptions of the school as a learning context for their continuous school-based professional development (Coburn, 2001; Louws et al., 2017). Teachers’ perceptions of the extent to which the school pays explicit attention to educational allocation were measured by a standardized scale consisting of five items. With these items, teachers were asked whether they agreed that the school provides a clear vision on educational allocation, and opportunities to professionalize and to cooperate (on a five-point Likert scale of totally disagree to totally agree). Example items are: ‘In this school there is a clear policy about educational choice guidance’ and ‘In this school, a great deal of attention goes to educational career guidance of pupils’ (for all scale items, see Appendix A1). The scale is based on the instrument for measuring policy making capacity regarding evaluation and assessment, developed by Vanhoof, Deneire, and Van Petegem (2011). Cronbach’s alpha for this scale is 0.828.

The items were summed up, and the observed minimum score is 14.18, the observed maximum score is 20.71. An ANOVA-analysis shows that the mean value for the policy differs significantly between schools (F=2.772, p< .001). Therefore, individual scores were aggregated to the school level by computing the mean of teachers’ perceptions per school. Aggregation of this variable is reliable based on an intra-class correlation of 0.64, indicating that teachers’ ratings are shared by teachers of the same school (Glick, 1985; Shrout & Fleiss, 1979). The average score for school policy on educational allocation was 16.96, with a standard deviation of 1.26.

Teachers’ sense of efficacy in educational allocation

The efficacy of the sixth-grade teacher was measured by a standardized Likert-scale consisting of seven items, based on Bandura’s (2006) guidelines for constructing a self-
efficacy scale. This scale specifically assessed teacher’s sense of efficacy in formulating an educational recommendation and supporting pupils and their parents in the decision-making process. Teachers could rate every item with a score of one (totally disagree) to five (totally agree). Example items are: ‘I manage to recommend an educational option that fits the pupil’s capacities’ and ‘I manage to actively involve parents in educational choice counselling’ (for all scale items, see Appendix A1). Cronbach’s alpha for this scale was 0.820. The scores of the seven items were summed up and treated as a classroom variable. The minimum score of sixth-grade teachers’ sense of efficacy in educational allocation is 14 and the maximum score is 35, based on the sample of May 2016. On average, the sixth-grade teachers had a score of 27.77 on self-efficacy with a standard deviation of 2.92.

5.3 Design

Since all studies focus on school effects in educational decision-making, multilevel analyses were most appropriate. Every study considers both characteristics of pupils and teachers, and of classrooms or schools. Since pupils are nested within classrooms and within schools, pupils in the same classroom or school are more similar to each other with regard to school characteristics (Hox, 2010; Van Rossem, 2010). This in turn implies that these pupil characteristics are not independent of each other and that independence of the error factors cannot be assumed, violating the assumption of non-autocorrelation. Using standard multivariate analyses would overestimate significant effects because standard errors would be too small. Multilevel techniques take the different hierarchical levels of the data into account by allowing a different intercept and slope coefficient for different classrooms and schools, thereby also allowing for heterogeneity of the data.

The analyses presented in this dissertation where consistently conducted using the MLwiN program (version 2.26). The estimation method applied in every study is based on the principle of least squares. The first empirical study applied the Iterative Generalized Least Squares method using first order Marginal Quasi Likelihood (MQL) approximations. However, since after this study, I learned that second order Penalized
Quasi Likelihood approximations (PQL) are more accurate than first order MQL approximations (Hox, 2010; Kreeft & De Leeuw, 1988; Rodriguez & Goldman, 2001), the latter were used for the second, third and fourth study. Each study uses only random intercept models, because random slope models did not add to the results and were not expected theoretically.

An advantage of multilevel techniques is that they allow for a decomposition of the variance in the dependent variable, in a within-group and between-group component. This gives an idea of the percentage of variance explained by school or class level characteristics and by individual features. However, since the dependent variable in our studies always considered a series of binary choices, hierarchical logistic analyses were used. When the dependent variable consists of a dichotomous variable with the values 0 and 1, the distribution of the residuals violate the assumptions of normal linear regression (Van Rossem, 2010). The residuals are not normally distributed, and the assumptions of homoscedasticity and the absence of autocorrelation are also violated. That is, the residuals are not independent of the values of the dependent variable (heterogeneity) and not independent of each other (autocorrelation). The use of logistic regression to some extent limits the scope of the multilevel analyses. The decomposition of the variance in a within-group and between-group component is not appropriate in logistic multilevel analyses, because of the low variation in the dichotomous outcome variable. However, the within- and between-group variances can give an idea of the importance of considering class- and school-level variables (Frost, 2007; Lee & Burkam, 2003). Therefore, most of the articles present within-group and between-group variances as an indication of the variance composition. To facilitate substantive interpretation of the effects and to increase stability of the models, grand mean centring was used for every independent continuous variable (Hox, 2010; Kreeft & De Leeuw, 1988). The last empirical study uses a simultaneous mixed method design, in which quantitative multilevel analyses complement qualitative analyses of observations and in-depth interviews (Teddlie & Tashakkori, 2003).
6.1 The primary school’s ethnic composition and the culture of teacher expectations

6.1.1 Abstract

The authors investigate whether teachers’ expectations (TE) at the school-level mediate the relationship between ethnic school composition and educational choice at the transition from primary to secondary education in Flanders. The link between TE and pupils’ educational choices is explored without neglecting school-level variables. Hierarchical logistic models were tested using data of May 2015. Results show that pupils’ educational choices are more ambitious at ethnically diverse schools. These ambitions are tempered by TE at the school-level, which are lower in these schools. The importance of TE for the educational progress of students in the increasingly diverse Flemish landscape is demonstrated.

Keywords: Social inequality, educational choice, primary education, ethnic composition, teacher expectations

6.1.2 Introduction

Since the 1970s, considerable attention has been paid to teacher expectations and self-fulfilling prophecies, due to the well-known Pygmalion study of Rosenthal and Jacobson

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(1968). Several meta-analyses and reviews later, we can conclude that teacher expectations influence student performance (Brophy, 1983; Jussim & Harber, 2005; Spitz, 1999). Nowadays, these findings are frequently applied to argue that teacher expectations play an important role in the reproduction of social inequalities at school (Jussim & Harber, 2005; Williams, 1976). Jussim, Eccles, and Madon (1996, p. 294), ascribe this interest in the power of teacher expectations to ‘their potential to further understanding social injustice’. However, the role of teacher expectations in explaining social inequalities at school has not yet been explored to its full potential.

Original teacher expectancy research focused mostly on cognitive outcomes for students, but subsequent research shows that non-cognitive student outcomes, such as motivation and self-esteem, are also influenced by teacher expectations (de Boer et al., 2010; Jussim, 1989; Jussim & Eccles, 1992; Trouilloud et al., 2002). However, it is only recently that research dealing with expectancy has examined a non-cognitive student variable that is directly related to educational inequality, namely educational choice (Becker, 2013). Social inequality in educational choice has been demonstrated by research in various countries (Flanders: Boone & Van Houtte, 2013a; Germany: Ditton & Krüskem, 2006; France: Duru-Bellat, 2002; England & Sweden: Jackson et al., 2012; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009). These recent studies show that pupils’ educational choices are influenced by their socio-economic background. Norwegian research shows that although the effect of social class on educational opportunities operates throughout people’s entire educational progression, it is greatest at the first major transition to secondary education at 15-16 years of age (Hansen, 1997). In Flanders, this first important transition occurs even earlier, at the age of 12. Previous German research by Becker (2013) investigated the effect of teacher expectations on educational choices, and advocated for the integration of expectancy research with research about inequality in educational opportunity. Both research traditions, however, have a history of neglecting school-level variables. Although recent expectancy research has focused on discovering the situations in which the most powerful self-fulfilling prophecies occur, this quest has concentrated on the individual characteristics of students or teachers, whilst neglecting environmental influences
Empirical studies

(Jussim et al., 1996; Jussim & Harber, 2005). Studies about educational choice at the transition from primary to secondary education have likewise paid little attention to features of the primary school (Ditton & Krüsken, 2006; Kloosterman et al., 2009; Van Houtte & Boone, 2012).

The present article aims to fill this research gap by considering school-level variables that are related to both teacher expectations and inequality in educational choice. By doing this, we further the ongoing investigation into the link between teacher expectations and educational choice, without neglecting school-level variables. Recent research suggests that teacher expectations are related to both educational choice and the ethnic composition of a school (Agirdag, Van Houtte, et al., 2013; Becker, 2013). In Flemish primary education, the level of ethnic school segregation is high, and in secondary education ethnic minority students are overrepresented in the “lower” tracks, especially in vocational education (Agirdag, Van Houtte, & Van Avermaet, 2011; Opdenakker & Hermans, 2006). However, little research has considered both ethnic composition and teacher expectations in relation to educational choice. Knowing this, we examine the possibility that ethnic composition is related to educational choice through its impact on teacher expectations. Therefore, the objective of this study is to examine whether the culture of teacher expectations, seen as the aggregation of teachers’ expectations at the school-level, mediates the relationship between ethnic composition and educational choice in the transition from primary to secondary education in Flanders.

6.1.3 Theoretical background

6.1.3.1 Educational choice and teacher expectations

In many European countries, educational choice at the transition from primary to secondary education is not only based on a pupil’s interests or talents, but is also influenced by the social position of a pupil’s parents (Flanders: Boone & Van Houtte, 2013a; Germany: Ditton & Krüsken, 2006; France: Duru-Bellat, 2002; England & Sweden: Jackson et al., 2012; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009). Educational choice embodies the secondary effect of class differentials in educational
attainment according to Boudon (1974). Research demonstrates that, irrespective of achievement, pupils with a high socio-economic status (SES) have a greater likelihood of choosing one of the more demanding academic tracks, compared with pupils who have a low SES background (Boone & Van Houtte, 2013a). A study by Hansen (1997), shows that social class has the strongest impact on the early transition to secondary education at 15-16 years of age. As a consequence, a pupil’s educational path is influenced by his/her socio-economic background from a very young age.

Because of the importance of parental background, research into the process of educational choice has focused on the perspective of parents and has neglected the role of the school, and more specifically, the role of teachers (Boone & Van Houtte, 2013b). However, in the absence of nationwide standardized tests or entrance requirements for tracks, teachers and the advice they offer might play a very important role at the time of the transition from primary to secondary education. Research in various countries has shown that these teacher recommendations are unconsciously socially biased (Flanders, Belgium: Boone & Van Houtte, 2013b; Germany: Ditton et al., 2005; France: Duru-Bellat, 2002). The probability to get the advice to enrol in the more demanding academic tracks is greater for pupils with a high socio-economic background, regardless of their level of achievement. Teachers presumably base the advice on their expectations concerning a pupil’s future educational progress. Teacher expectancy research has shown that high-expectancy students are given the benefit of the doubt in borderline situations (Finn, 1972).

In line with Rosenthal and Jacobson (1968), expectancy research has been primarily concerned with the impact of teacher expectations on student intellectual development (Jussim & Harber, 2005). According to literature, different teacher expectations produce differential treatment of students, in the form of giving high-expectancy students more emotional support, clearer and more positive feedback, more attention, more opportunities to learn, and different learning materials (Brophy, 1983; Brophy & Good, 1970; Cooper, 1979; Jussim, 1986). This differential treatment of high versus low-expectancy students can be explained by a number of psychological mediators, for example the perception of control over students. According to Cooper (1979), teachers
Empirical studies may feel they have greater control over the behaviour of high expectancy students than over that of low-expectancy students. Therefore, they will emphasize controlling and structuring the behaviour of low-expectancy students to a greater extent than they will for high expectancy students. This comes about through minimizing student-initiated interactions with low-expectancy students, by providing a less emotionally-supportive environment with less positive feedback for success (Jussim, 1986). The differential treatment of students can invoke performance consistent with the expectations, by the lack or abundance of opportunities to develop important scholastic skills. Low expectancy students receive less positive feedback regarding their success, although appropriate feedback provides a student with the information needed for good school performance. Through these mechanisms of differential treatment, teacher expectations can influence student achievement (Brophy, 1983; Jussim & Harber, 2005; Spitz, 1999).

More recent teacher expectancy research has focused not only on student cognitive outcomes, but also on non-cognitive outcomes, such as motivation and self-esteem (de Boer et al., 2010; Jussim, 1989; Jussim & Eccles, 1992; Trouilloud et al., 2002). Research concludes that teacher expectations are also related to student perceived control over outcomes, motivation, and self-concept of ability (Jussim, 1989). A greater degree of emotional support and positive feedback given to a high-expectancy pupil can affect that student’s self-esteem concerning school affairs (Jussim et al., 1996). Becker (2013) links these concepts to the subjective evaluation of the likelihood to succeed, within the cost-benefit calculation of an educational decision. According to the rational action approach of Breen and Goldthorpe (1997), educational choices are based on a rational calculation of costs and benefits, thereby taking into account the subjective evaluation of the likelihood to succeed in a particular educational track. It is this subjective evaluation – which is closely related to self-concept of ability and self-esteem regarding school affairs – that is influenced by teacher expectations.
6.1.3.2 Educational choice and teachers’ expectations in ethnically diverse primary schools

Studies into the educational choice at the transition from primary to secondary education have not only neglected the role of teachers, but have also paid remarkably little attention to features of the primary school in general (Van Houtte & Boone, 2012). However, there are a number of recurrent findings that demonstrate the importance of the school context with regard to educational inequality. Research shows that a high SES composition of a school enlarges the difference in educational choice between pupils with a high and a low socio-economic status (Van Houtte & Boone, 2012). Moreover, because of growing concerns about ethnic segregation in schools, researchers have been turning their attention to the effects of ethnic school composition (Agirdag et al., 2011; Agirdag, Van Houtte, & Van Avermaet, 2012; Brault et al., 2014). Although studies have considered the effect of ethnic composition on educational aspirations (Dawkins, 1983; Epps, 1975; Frost, 2007; Goldsmith, 2004; Van Houtte & Stevens, 2010), virtually no research has investigated the effect of ethnic school composition on pupils’ actual educational decisions. Frost (2007) shows that the educational expectations of high-school students are greater at schools with a large proportion of ethnic minority students, irrespective of individual ethnicity. Moreover, Goldsmith (2004) claims that a high proportion of ethnic minority students creates a positive normative climate at school, because of the more optimistic and more pro-school attitudes of ethnic minority students. However, these studies relate to high-school students in the USA, and use data collected after the time at which the first important educational transition has already been made (pupils were 18 and 14 years old respectively).

Teacher expectancy research has also neglected school-level variables. In trying to find the situations in which the most powerful self-fulfilling prophecies occur, teacher expectations have been related to individual background characteristics of pupils and teachers (Jussim et al., 1996; Jussim & Harber, 2005; Tenenbaum & Ruck, 2007). For example, most studies into the relationship between a pupil’s background characteristics and the teacher’s expectations have shown that low expectations are common with regard to ethnic minority pupils (Tenenbaum & Ruck, 2007; van den Bergh...
et al., 2010). However, instead of looking at expectations for individual students, Rubie-Davies (2006, 2007, 2010) looked at teacher expectations as class centred. This means that teacher expectations for all students in the classroom were examined. This way, the attention was shifted from looking at student features that are related to low or high expectations, to teacher characteristics or behaviours that are related to having high or low expectations for all students in the classroom. These teacher characteristics were examined as mechanisms or moderators in the communication of teacher expectations (Rubie-Davies, 2007, 2010). Despite the fact that these studies look at teacher expectations at the class-level, teacher expectancy research did not proceed with examining the school context. But research also demonstrates that teacher expectations are negatively related to the proportion of ethnic minority students at school (Brault et al., 2014). Moreover, beliefs about the teachability of students are shared among teachers at the same school (Demanet & Van Houtte, 2012; Van Houtte, 2011b). These shared perceptions of teachability are influenced by a school’s ethnic composition, in a way that they are lower at schools with a high percentage of non-native pupils (Agirdag, Van Houtte, et al., 2013). Shared beliefs about students can produce a common culture of teacher expectations (Demanet & Van Houtte, 2012). Rosenthal and Jacobson (1968) also explored the possibility of collective self-fulfilling prophecies based on shared beliefs held by members of the same group. The culture of teacher expectations can accordingly be defined as the set of shared assumptions that teachers hold about the expected performance of students (Van Houtte, 2005). School cultural variables are interesting mediating variables, because they can be related both to compositional school characteristics and to individual-level variables. More specifically, as previously indicated, teachers’ expectations can be dependent on a school’s ethnic composition and can affect the educational choices of pupils. The culture of teacher expectations may influence pupils’ individual attitudes or behaviour through overt manifestations of this teacher culture (Van Houtte, 2011b). Specifically, this consists of the differential treatment, elaborated on above, of pupils of a certain group in the classroom or at the playground. Studies have shown that in this way, the culture of teachers’ beliefs about the teachability of students influences both cognitive and non-cognitive student behaviours, such as math performance and school misconduct (Agirdag, Van Avermaet,
et al., 2013; Demanet & Van Houtte, 2012). In schools where teachers’ expectations are generally low, students may feel demotivated by the less academically-oriented and less emotionally-supportive behaviour of teachers, and hence be less likely to make ambitious educational choices.

6.1.4 The Flemish education system

In Flanders, pupils make the transition from primary to secondary education at the age of 12. Secondary school comprises six years, and is divided in three, two-year stages (see Figure 6 above). Theoretically, the first two years of secondary education are broad and comprehensive, to minimize the impact of this early educational choice on the future educational path of students. Students and their parents can choose between A-stream or B-stream. B-stream is intended for pupils who are less suitable for theoretically oriented education (Department of Education, 2008). The choice of B-stream is mostly determined by pupils’ performance. The majority of pupils enter the A-stream, which provides a comprehensive theoretical curriculum preparing for future educational options. Within the first stage of A-stream, four optional courses are offered: Latin, modern sciences, technology, and arts. The process of educational allocation at the transition from primary to secondary education is loosely organized, with few formal regulations. A recommendation from the sixth-year teacher is the only advice offered by educational professionals in the allocation process (Boone & Van Houtte, 2013b). There are no centrally administered standardized tests and the allocation of pupils is mostly dependent on the judgement of teachers and parents about the student’s abilities. The judgement of teachers is communicated in the form of informal advice that is not binding.

Starting from the third year of secondary education, the stages are organized in accordance with four educational tracks: academic, technical, artistic, and vocational tracks. At the end of the first stage of secondary education, pupils who complete the A-stream can choose between these four educational tracks. Pupils who complete the B-stream can only enrol in vocational education, except those who choose to repeat the first stage, moving to the A-stream. The optional courses available during the first stage,
however, are each seen as specifically preparing for one of the educational tracks starting from the third stage. Latin and modern sciences are perceived to prepare students for the more prestigious academic track, technology prepares them for technical education, and arts for artistic education. This entails that, against official efforts to offer a comprehensive and broad A-stream in the first two years of secondary education, it already comprises diverse educational opportunities that define future educational choices. This is also apparent in the fact that many schools offer only one or two optional courses and educational tracks, which means there are academic schools, technical/vocational schools, and vocational schools (Van Houtte et al., 2012). Switching back and forth between educational tracks is theoretically possible, but in practice, pupils mostly “fall back” from academic to technical or vocational tracks.

6.1.5 Methodology

6.1.5.1 Sample

Data were collected in May 2015, in a sample of 36 primary schools in Ghent and Antwerp, two cities in Flanders, the northern Dutch-speaking part of Belgium. These cities were chosen because of the high level of diversity in their schools and because of their urban character. The collection of data was part of the research project Transbaso, examining inequality in educational choice at the transition from primary to secondary education. The sample of schools was selected based on their school denomination and the proportion of low SES pupils. First, the sample was divided into state and private schools within each city. It needs to be noted that all schools in Flanders are state-subsidized, but that the majority are private Catholic schools. We then divided the schools per city and per denomination into three groups according to their percentage of low SES pupils. This percentage is based on information from the Flemish Department of Education and Training (Department of Education, 2015). Using these criteria, three random samples were drawn, each comprising 36 schools. We started by contacting the schools in the first sample and in case of refusal to participate in the research project, a corresponding school from the next sample was approached. We ultimately selected 18 schools of each denomination, of which 6 schools include the lowest proportion of low
SES pupils, 6 schools represent the middle proportion, and 6 schools include the highest proportion of low SES pupils. A written questionnaire was completed by a total of 1049 sixth-year pupils, after their parents had received an informed consent letter. At the same time, we distributed questionnaires for their teachers and school leaders. This yielded a response from 471 primary school teachers. For the current research, we use only pupils who chose the A-stream or had not made their choice, because opting for the B-stream is mostly not a voluntary choice, but is primarily based on a pupil’s school performance (see Section 6.1.4) (Boone & Van Houtte, 2013b). The analyses were carried out on cases that had a valid value for each of our selected variables, which results in data of 860 pupils.

6.1.5.2 Variables

Individual-level variables

Educational choice. Within the A-stream, we distinguish between the academic options that are perceived to precede general secondary education (Latin and modern sciences (72.6%)), and those perceived to precede technical or artistic secondary education (technology and arts (15.1%)) (see Table 5). Even though the questionnaires were completed at the end of the sixth year, 12.3% of the students had not made their choice by then. Therefore, we also include those pupils who had not made their choice, as a distinct category of the dependent variable. The dependent variable thus consists of three categories: the undecided (12.3%), the academic option (72.6%), and the practical option (15.1%).

Gender. There are 419 (48.7%) girls (coded 1) and 441 (51.3%) boys (coded 0) in the sample.

Ability. A standardized Raven test was used to measure pupils’ capacity for abstract reasoning. The average score for our sample is 42.27 (with a standard deviation of 6.5), a minimum score of 13, and a maximum score of 55.

Ethnicity. Ethnic background is assessed by the birthplace of the pupil’s maternal grandmother, which is commonly used in Flemish and Dutch research (Jacobs et al., 2009; Timmerman et al., 2002). If this information was missing (in 22 cases), the
birthplace of the paternal grandmother was used. If this information was also missing (in 16 of the earlier 22 cases), the birthplace of respectively the mother (in 15 of the earlier 16 cases) or the father (in 1 of earlier 16 cases) was used. Based on the birthplace of the maternal grandmother, nine ethnic groups were created: Belgium and North-Western Europe (62.2%), Eastern Europe (6.6%), Maghreb (16.5%), Turkey (5.8%), Asia (2.7%), Sub-Saharan Africa (3.3%), Mid-America and South-America (1.3%), Middle East (0.7%), and Southern Europe (0.9%). For our purposes, pupils from the category Belgium and North-Western Europe are treated as native students (Ethnicity= 0). The other eight categories are treated as having an immigrant background (Ethnicity= 1). The sample contains 535 native pupils (62.2%) and 325 pupils with an immigrant background (37.8%).

SES. The socio-economic status of the students is based on the occupation of their parents. In the case of unemployment, the previous occupation was used. These parental occupations were recoded according to the International Socio-economic Index of Occupational Status (ISEI) (Ganjeboom et al., 1992). Scores range from 11.74 to 88.96. To obtain the measurement for family SES, the highest score out of the two parents is used. The mean SES score is 53.26 with a standard deviation of 23.15.
### Table 5 Descriptive characteristics: variables under consideration in study 1

<table>
<thead>
<tr>
<th>Variable (N=860)</th>
<th>Mean or percentage (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Educational choice</strong></td>
<td></td>
</tr>
<tr>
<td>Undecided</td>
<td>12.3%</td>
</tr>
<tr>
<td>Academic option</td>
<td>72.6%</td>
</tr>
<tr>
<td>Practical option</td>
<td>15.1%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Girls (1)</td>
<td>48.7%</td>
</tr>
<tr>
<td>Boys (0)</td>
<td>51.3%</td>
</tr>
<tr>
<td><strong>Ability</strong></td>
<td>42.27 (6.5)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Immigrant (1)</td>
<td>37.8%</td>
</tr>
<tr>
<td>Native (0)</td>
<td>62.6%</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>53.26 (23.15)</td>
</tr>
<tr>
<td><strong>Ethnic school composition</strong></td>
<td>37.35% (24.22)</td>
</tr>
<tr>
<td><strong>Culture of teacher expectations</strong></td>
<td>11.37 (0.75)</td>
</tr>
</tbody>
</table>

### School-level variables

**Ethnic composition.** The percentage of ethnic minority students is used as an indicator for the ethnic composition of the school. This percentage was calculated by using the number of pupils with a valid value on the ethnicity variable. For the sampled schools, the minimum percentage of pupils with a migration background is 0%, and the maximum is 100%. The mean percentage of immigrant students is 37.35% with a standard deviation of 24.22.

**Culture of teacher expectations.** Teachers’ expectations of pupils are measured by a standardized scale that consists of three items. These items measure the expectations that teachers held concerning their pupils’ future school progress. The three items are: ‘I expect most of my pupils will perform well in their future school career’, ‘I expect most of my pupils to perform well in secondary education’, and ‘I think most students will find their way in life’. The three items were summed, which results in a minimum score of
8.18 and a maximum of 12.36. Cronbach’s alpha for this scale is 0.804. The average score on the teachers’ expectations scale is 11.37, with a standard deviation of 0.75. These individual expectations for the students were aggregated to form a measurement of the culture of teachers’ expectations. ANOVA analysis shows that the mean value for the teachers’ expectations scale differs significantly between schools (F = 6.793, p < 0.001). Aggregation of these teachers’ expectations is legitimated by an intra-class correlation (ICC) of 0.85 (Between Mean Square - Within Mean Square/Between Mean Square) (Glick, 1985; Shrout & Fleiss, 1979). This means that teachers’ expectations about their pupils’ future educational path can be seen as a manifestation of a shared culture between teachers at the same school.

6.1.5.3 Design

Taking into account the two-level variable structure, with the main determinants at the school level – namely school ethnic composition and the culture of teacher expectations – and the dependent variable, educational choice, at the student level, multilevel analysis is most appropriate. Moreover, since the categorical outcome variable has three categories, we performed a two-level multinomial logistic analysis (using the MLwiN program). The categorical outcome of three categories provides two comparisons. First, we compared the pupils who did not know what to choose with those who were going to choose an academic option. Second, we compared the pupils who were going to choose an academic option with those who were going to choose a practical option. An estimation of unconditional models to divide the outcome variance into a within-school and between-school component is commonly the start of a multilevel analysis. However, this is not appropriate for hierarchical logistic models (Frost, 2007; Lee & Burkam, 2003). In a first model, we test the relationship between the percentage of ethnic minority students and the educational choices of pupils. A second model investigates whether this relationship remains significant when controlling for the individual-level factors of ethnicity, gender, and ability. We control for these factors because previous research shows that these can influence the educational choices of pupils (Ball, Reay, & David, 2002; Trusty, Ng, & Plata, 2000; Trusty, Robinson, Plata, & Ng, 2000). A third and last model examines what happens to the relationship between ethnic composition and
educational choice when entering the culture of teacher expectations into the model. Missing values are dealt with by applying list-wise deletion, which leaves 860 cases to examine.

6.1.6 Results

Bivariate analyses show that the culture of teacher expectations correlates in a negative way with the ethnic composition of a school (Pearson correlation= 0.572, p< 0.001): the higher the percentage of ethnic minority students at school, the lower the teachers’ expectations for pupils’ future educational progress. The first model of the multilevel analysis shows that the ethnic composition of the primary school is unrelated to educational choice (see Table 6, Model 1). However, ethnic school composition is related to the probability of not knowing what to choose versus choosing an academic option (see Table 7, Model 1). At schools with a high percentage of ethnic minority students, the odds of indecisiveness is higher than the odds of choosing an academic track, when compared with schools having a lower percentage of ethnic minority students (odds ratio= 1.020, p< 0.01). Examining the individual-level variables, we see that the probability of not knowing what to choose versus choosing an academic option is dependent on a pupil’s ability (see Table 7, Model 2). For pupils with a high score on ability, the probability of not knowing what to choose is lower than the probability of choosing an academic track. For a one unit increase in ability, the odds of indecisiveness is 0.93 times lower than the odds for pupils with an average ability (odds ratio= 0.934, p≤ 0.001). This effect of ability reduces the significance of the effect of ethnic composition. The effect of ethnic composition on the probability of not knowing what to choose versus choosing an academic option is no longer significant when controlling for pupils’ ability. Controlling for those pupils who had not yet made a decision, the likelihood of choosing a practical option rather than an academic one, is related to pupils’ ethnicity, ability, gender, and SES (see Table 6, Model 2). SES and ability are negatively related to the likelihood of choosing a practical rather than an academic option (respectively odds ratio= 0.972, p≤ 0.001; odds ratio= 0.924, p≤ 0.001).
### Table 6 Results study 1: Practical option (1) or Academic option (0)

<table>
<thead>
<tr>
<th></th>
<th>Model 1: School composition</th>
<th>Model 2: Individual variables</th>
<th>Model 3: Expectancy culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>$\gamma$ -1.621 (0.184)***</td>
<td>-1.120 (0.225)***</td>
<td>-1.154 (0.217)***</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.198</td>
<td>0.326</td>
</tr>
<tr>
<td><strong>Ethnic composition</strong></td>
<td>$\gamma$ -0.001 (0.007)</td>
<td>-0.010 (0.007)</td>
<td>-0.019 (0.008)*</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.999</td>
<td>0.990</td>
</tr>
<tr>
<td><strong>Ethnicity – immigrant (1)</strong></td>
<td>$\gamma$ -0.724 (0.269)**</td>
<td>-0.730 (0.271)**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.485</td>
<td>0.482</td>
</tr>
<tr>
<td><strong>Ability</strong></td>
<td>$\gamma$ -0.078 (0.016)***</td>
<td>-0.079 (0.016)***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.925</td>
<td>0.924</td>
</tr>
<tr>
<td><strong>Gender – girl (1)</strong></td>
<td>$\gamma$ -0.928 (0.221)***</td>
<td>-0.926 (0.221)***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.395</td>
<td>0.396</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>$\gamma$ -0.030 (0.006)***</td>
<td>-0.028 (0.006)***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.970</td>
<td>0.972</td>
</tr>
<tr>
<td><strong>Culture of teacher expectations</strong></td>
<td>$\gamma$ -0.489 (0.224)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td>0.613</td>
</tr>
<tr>
<td><strong>Between school variance</strong></td>
<td></td>
<td>0.726 (0.273)**</td>
<td>0.697 (0.270)**</td>
</tr>
</tbody>
</table>

Note: Presented are the gamma coefficients ($\gamma$) with standard errors between brackets, and odds ratios. *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$. 
Table 7 Results study 1: Undecided (1) or Academic option (0)

<table>
<thead>
<tr>
<th></th>
<th>Model 1: School composition</th>
<th>Model 2: Individual variables</th>
<th>Model 3: Expectancy culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>γ</td>
<td>-1.920 (0.184)***</td>
<td>-1.833 (0.243)***</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.147</td>
<td>0.160</td>
</tr>
<tr>
<td><strong>Ethnic composition</strong></td>
<td>γ</td>
<td>0.020 (0.007)**</td>
<td>0.012 (0.007)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.020</td>
<td>1.012</td>
</tr>
<tr>
<td><strong>Ethnicity – immigrant (1)</strong></td>
<td>γ</td>
<td></td>
<td>0.040 (0.282)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.041</td>
<td>1.073</td>
</tr>
<tr>
<td><strong>Ability</strong></td>
<td>γ</td>
<td></td>
<td>-0.068 (0.017)***</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.934</td>
<td>0.934</td>
</tr>
<tr>
<td><strong>Gender – girl (1)</strong></td>
<td>γ</td>
<td></td>
<td>-0.257 (0.223)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.773</td>
<td>0.765</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>γ</td>
<td></td>
<td>-0.009 (0.006)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.991</td>
<td>0.990</td>
</tr>
<tr>
<td><strong>Culture of teacher expectations</strong></td>
<td>γ</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Between school variance</strong></td>
<td></td>
<td>0.595 (0.259)*</td>
<td>0.571 (0.250)*</td>
</tr>
</tbody>
</table>

Note: Presented are the gamma coefficients (γ) with standard errors between brackets, and odds ratios. *p ≤ .05, **p ≤ .01, ***p ≤ .001.
The odds of choosing a practical track is 0.97 times lower when there is a one-unit increase in SES. The odds of choosing a practical track is 0.92 times lower with a one-unit increase in ability. Moreover, girls are less likely than boys to choose a practical rather than an academic option (odds ratio= 0.396, p≤ 0.001). Immigrant students, finally, have a lower probability of choosing a practical rather than an academic track (odds ratio= 0.482, p≤ 0.01). Their choices thus seem to be more ambitious than those of native pupils. For immigrant students, the odds of choosing a practical track over an academic track is 0.48 times smaller than for native pupils.

The third model shows that the probability of indecisiveness versus choosing an academic option is unrelated to ethnic composition or to the culture of teacher expectations, but is related to pupils’ ability (see Table 7, Model 3). When controlling for expectancy culture, the ethnic composition of the school is negatively related to choosing a practical rather than an academic track (odds ratio= 0.981, p≤ 0.05) (see Table 6, Model 3). At schools with a high percentage of ethnic minority students, pupils are less likely to choose a practical track, and are thus more ambitious in their educational choices. For a school situated 10 percent above the average for the percentage of ethnic minority pupils, the odds of choosing a practical track over an academic is 4% lower than for a school with an average percentage of ethnic minority pupils. This effect of school ethnic composition, however, is suppressed by the fact that teachers’ expectations are low at schools with a high percentage of ethnic minority students. Pupil’s educational choices are more ambitious at schools with a high percentage of ethnic minority students, but these ambitions are tempered by the culture of teacher expectations, which is lower in these schools. Furthermore, the culture of teacher expectations is negatively associated with choosing a practical option over an academic option (odds ratio= 0.613, p≤ 0.05) (see Table 6, Model 3). This means that pupils have a higher likelihood of choosing a practical track if they attend a school where teachers’ expectations are low, regardless of the individual pupils’ ability, ethnicity, gender, or SES. When the culture of teacher expectations increases by one unit, the odds of choosing a practical over an academic track decreases by roughly 6%.
6.1.7 Discussion

Inequality at school is evident in the educational choice at the transition from primary to secondary education (Flanders: Boone & Van Houtte, 2013a; Germany: Ditton & Krüsken, 2006; France: Duru-Bellat, 2002; England & Sweden: Jackson et al., 2012; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009). Studies demonstrate that irrespective of achievement, the likelihood of choosing a more demanding academic track is greater for pupils from a higher middle-class background than for pupils from a working-class background (Boone & Van Houtte, 2013a). In Flanders, the educational choice at the transition from primary to secondary education is mostly not based on a pupil’s interests or talents, but on aiming as high as possible (Boone & Van Houtte, 2014; Van Houtte, 2011a). Even though switching back and forth between educational tracks is theoretically possible, in practice pupils mostly “fall back” from academic tracks to technical or vocational ones (Boone & Van Houtte, 2014). The Flemish educational system is therefore commonly referred to as a cascade system. These findings point to the idea of education as a reproduction of, rather than a counter pressure to, social inequality. In this reproduction of social inequality, teachers have been assigned an important role by previous literature. More specifically, teacher expectations have been explored as mechanisms that could help explain social inequality at school (Jussim et al., 1996; Jussim & Harber, 2005; Williams, 1976).

In this article, we argue that teachers’ expectations play an important role in the process of educational decision-making. Because of the loosely organized educational orientation in Flanders, the choice that pupils and their parents make is influenced by the teachers’ judgements of the abilities of their students (Boone & Van Houtte, 2013b). This study builds upon the integration of Pygmalion research and the subjective expected utility framework advocated by Becker (2013). However, because of the lack of regard paid to school-level variables - in both the expectancy research tradition and in research about inequality in educational choice - this relationship has not been investigated at the school level. This paper aimed to investigate the link between teachers’ expectations and pupils’ educational choices, without neglecting school-level variables. Therefore, we examined whether the ethnic composition of a school
influences pupils’ educational choices at the transition from primary to secondary education through its impact on the culture of teachers’ expectations.

Multilevel logistic analysis show that the ethnic composition of a primary school influences pupils’ educational choices. At schools with a high percentage of ethnic minority students, the probability of choosing a practical instead of an academic option is lower. This means that pupils’ educational choices at the transition from primary to secondary education are more ambitious at schools with a high proportion of ethnic minority students, irrespective of pupils’ own ethnicity. This confirms recent research, which shows that the educational expectations of students in secondary education are greater at schools with a high percentage of ethnic minority students (Frost, 2007). A possible explanation for the relationship between educational expectations and ethnic school composition is offered by Goldsmith (2004), who claims that a high proportion of ethnic minority students creates a positive normative climate at school, because of the more optimistic and more pro-school attitudes of ethnic minority students. These pro-school attitudes of ethnic minority students have also been acknowledged by previous research (Jackson et al., 2012; Mickelson, 1990; Teney et al., 2013). Our study confirms the optimistic attitudes of ethnic minority students with regard to educational choice. Results show that ethnic minority students have a higher likelihood of choosing the more demanding academic track. One possible explanation for these effects focuses on the more positive abstract attitudes of ethnic minority students and their parents, with which they praise the role of education for social mobility (Mickelson, 1990). Another explanation given by Jackson and colleagues (2012) points to the possibility that ethnic minority pupils try to counteract perceived unemployment risks by staying in school longer. However, Jackson and colleagues (2012) also pinpoint that ethnic minority groups may assess their probability of success in education too optimistically. According to Goldsmith (2004), these optimistic attitudes of ethnic minority students create a positive normative climate that could raise the educational beliefs or expectations of all students. Previous Flemish research also concluded that so called “concentration schools” (with more than 50% immigrant students) are ‘not necessarily detrimental for students’ educational aspirations’ (Van Houtte & Stevens, 2010, p. 209). However, since
pupils in this study were only 12 years old, their educational decision at the transition between primary and secondary education is heavily reliant upon their parents. Specifically, parental cultural capital has been related to educational outcomes of students (De Graaf et al., 2000; Jæger, 2009; Sullivan, 2001). According to Kalmijn and Kraaykamp (1996), there has been an integration of ethnic minority groups in the cultural domain and cultural capital can be of particular importance for the social mobility of ethnic minority groups. On the other hand, previous Flemish research has shown that cultural capital does not explain the socio-economic inequality in educational choice (Boone & Van Houtte, 2013a). Future research should concern the impact of cultural capital on the educational choices of ethnic minority students in more detail.

The present study shows that the way teachers react to ethnic diversity at school is an even more important factor than the ethnic diversity itself. Specifically, the results show that teachers’ expectations are a shared characteristic among teachers at the same school. There is considerably more between-school variance in teacher expectations than within-school variance. These shared teacher expectations are related to educational choice at the transition from primary to secondary education in Flanders. At schools where teachers’ expectations are high, a pupil’s likelihood to choose a more demanding academic track is greater, irrespective of individual ability. One possible way in which this could happen is through overt manifestations of the culture of teacher expectations, specifically through the differential treatment of high versus low expectancy pupils, which will have consequences for pupils’ academic self-concept (Van Houtte, 2011b). Whereas a high proportion of ethnic minority students has a positive effect on the normative climate at school, low teachers’ expectations affect this climate in a negative way. This finding confirms previous Flemish research, which shows that in schools where teachers’ expectations are generally low, students feel demotivated by the less academically oriented and less emotionally-supportive teacher behaviour (Agirdag, Van Avermaet, et al., 2013; Demanet & Van Houtte, 2012).

Lastly, this study shows that the effect of ethnic composition on educational choice is suppressed by the culture of teacher expectations at school. This means that the more
ambitious choices at schools with a high percentage of ethnic minority students are tempered by the culture of teacher expectations, which is lower at these schools. Because of the absence of nationwide standardized tests in Flanders, teachers’ recommendations might be of particular importance related to this finding. Teachers presumably base the advice for an educational option on their expectations concerning a pupil’s future educational progress, and previous Flemish research shows that the recommendation given by teachers is socially biased (Boone & Van Houtte, 2013b). Low teacher expectations would then result in recommending a less ambitious option. Whereas these teacher recommendations are not binding, they constitute an important guideline for parents. We hypothesize that, at schools with a high share of ethnic minority students, teachers give lower recommendations or might advise against a, what they perceive as too ambitious, choice. However, this study is limited to the use of a dichotomous measurement of student ethnicity. Based on earlier research, we know that teacher expectations can vary according to the ethnic minority group it concerns (McKown & Weinstein, 2002; Tenenbaum & Ruck, 2007). For example, Tenenbaum and Ruck (2007) found that teachers hold high expectations for Asian American students. Further studies should test whether the results of the current study can be generalized to all ethnic minority groups.

When discussing these results, the debate about the nature of teacher expectations inevitably pops up: Are they erroneous interpretations of social reality or are they accurate predictions of pupils’ educational achievement (Jussim & Harber, 2005)? In the former case, the high ambitions of pupils at schools with a high percentage of ethnic minority students are suppressed by the culture of teacher expectations, which is lower at these schools. This would indicate that a culture of low teacher expectations negatively influences pupils’ ambitions. In the latter case, the more ambitious educational preferences are adjusted to be more realistic, based on the teachers’ expectations. This would imply that pupils’ ambitions are too optimistic, and are unrealistic based on their abilities. Research into self-fulfilling prophecies based on teacher expectations, has previously concluded that self-fulfilling prophecies do occur, but mostly because of the accuracy of teacher expectations (Jussim, 1989). It needs to
be noted that the current study controls for the ability of students, so the results are
irrespective of this factor. However, to really say something about the accuracy of
teacher expectations, it might be necessary to include a measurement of school
achievement or school grades. This study is limited to using a measurement of ability
that is based on a standardized Raven test. Furthermore, working with cultural
measurements in a quantitative way also limits the scope of the study. Future
educational research should qualitatively explore the underlying mechanisms of the way
in which the culture of teacher expectations influences students’ educational decisions
in ethnically diverse schools. Despite these limitations, the findings indicate that student
teachers should be made more aware of this impact of teachers’ expectations and of
the way teachers’ expectations can influence the educational progress of pupils. Teacher
education should pay attention to the subtle ways in which teachers’ expectations are
communicated to pupils, and to the necessity of having high expectations. This study
shows the importance of teachers’ expectations with regard to the educational progress
of students in the increasingly diverse educational landscape of Flanders.
6.2 The influence of class composition on teacher recommendations

For a permission document, see appendix A2.

6.2.1 Abstract

Teacher recommendations are an important factor in the process of track placement, but research has shown that they are biased by pupils’ social background. Pupils from higher socio-economic backgrounds are more likely to get the advice to enrol in an academic track than pupils from lower socio-economic backgrounds, irrespective of prior achievement. Previous studies primarily looked at individual pupil or parent characteristics and their influence on teacher recommendations. However, in this article, the authors argue that the class context forms the frame of reference within which a teacher forms his/her recommendation for pupils. Therefore, this paper investigates class composition effects on teacher recommendations at the transition between primary and secondary education in Flanders. More specifically, we look at the socio-economic, ethnic and ability composition of a class. Multilevel logistic models where tested on data, collected in 36 primary schools in the cities of Ghent and Antwerp in May 2015. Results show that only the ability composition of the classroom exerts a frame-of-reference-effect on teacher recommendations for academically versus practically oriented tracks. A pupil with a low individual ability in a low ability class was more likely to get the advice to enrol in an academically oriented track than an equally able pupil in a high ability class. This study demonstrated the limited importance of class composition in teacher recommendations, but calls for more research on teacher bias in the process of track assignment.

Keywords: Teacher recommendations, class composition, inequity and social justice, transition

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6.2.2 Introduction

In recent decades, there has been a growing interest within sociology of education in the different ways in which education systems allocate pupils to tracks. The reason for this rise in interest is the finding that these allocation procedures can influence the extent to which pupils’ assignment to tracks is merit-based rather than determined by their social background (Dollmann, 2016; Driessen et al., 2008). We can roughly distinguish between two allocation models. On the one hand, there are education systems which use standardized tests to assign pupils to educational pathways (e.g. the UK). On the other hand, there are systems in which the teachers’ expectations regarding pupils’ future performance in the form of a teacher recommendation play an important role in the allocation process, whether or not accompanied by a form of standardized testing (e.g. the Netherlands, Germany, France, Flanders (Belgium)). The use of standardized tests is generally found to decrease the influence of pupils’ social background on their track placement, although studies have also shown that standardized testing does not entirely eliminate bias in teacher recommendations (Luyten & Bosker, 2004). Numerous studies have clearly demonstrated that teacher recommendations are biased by pupils’ social background in education systems without standardized testing (Barg, 2012; Boone & Van Houtte, 2013b; Ditton et al., 2005; Duru-Bellat, 2002; Schneider, 2011; Wagner et al., 2009). Pupils from lower SES backgrounds less often receive the advice to enrol in academically oriented tracks than pupils from higher SES backgrounds with comparable scholastic achievement.

Overall, the leading question in studies on teacher recommendations has been to what extent they reflect pupils’ abilities and effort, rather than their social background (e.g. Luyten & Bosker, 2004). Studies that take into account the broader class or school context in which teachers form their track recommendations are less numerous. This is remarkable as the class is the immediate context in which a teacher operates. Furthermore, classes differ with regard to their composition in terms of pupils’ ethnic and social background, but also regarding their ability composition. In Europe’s cities, school and class compositions are rapidly changing as increasing shares of the school-going population have an immigration background (Clycq, Nouwen, & Vandenbroucke,
Empirical studies

The few studies that have so far investigated the influence of contextual variables have suffered from suboptimal operationalisations (e.g. Tiedemann & Billmann-Mahecha, 2007; Wagner et al., 2009).

In this study we want to explore the influence of class level contextual features on teacher recommendations at the transition from primary to secondary education in Flanders (the northern, Dutch-speaking part of Belgium). More specifically, our aim is to study the influence of three compositional class characteristics on teachers’ recommendations, namely the socio-economic, ethnic and ability composition of a class. Past research has shown that schools’ socio-economic and ethnic composition influence teacher expectations (Agirdag, Van Avermaet, et al., 2013; Thys & Van Houtte, 2016). Teachers have lower expectations in schools with a high share of working class pupils and ethnic minority pupils. We might therefore expect to find that teacher recommendations will also be influenced by their class’ socio-economic and ethnic composition. Furthermore, research has suggested that the ability composition of a class influences teachers’ grading of pupils (Marsh, 1987; Trautwein et al., 2006). We might expect that the ability composition of a class will have a similar frame-of-reference effect on teachers’ track recommendations to pupils.

6.2.3 Teacher recommendations and pupils’ social background

Recent research on teacher recommendations has primarily been geared at ascertaining whether the advice given by teachers is merit-based, rather than determined by pupils’ social background (e.g. Luyten & Bosker, 2004). These studies, conducted in different institutional contexts, have demonstrated repeatedly that teacher recommendations are biased by pupils’ social background (France: Barg, 2012; Flanders, Belgium: Boone & Van Houtte, 2013b; Germany: Ditton et al., 2005; Dollmann, 2016; France: Duru-Bellat, 2002). In fact, pupils from higher socio-economic backgrounds are more likely to get the advice to enrol in the more demanding, academic tracks than pupils from lower socio-economic backgrounds, irrespective of achievement. Research on the origins of the socially biased nature of teacher recommendations is less well developed. One of the most frequently invoked explanations is that teachers take into account parents’ ability
and resources to support their children when learning problems arise (Ditton et al., 2005; Duru-Bellat, 2002). Teachers would deem parents from lower socio-economic backgrounds less well equipped to assist their children with school work and would therefore be more reluctant to recommend the academic track. A second explanation supposes that teachers base their recommendations on pupils’ behaviour in class (Blossfeld, 2013; Boone & Van Houtte, 2013b). The behaviour of pupils from higher socio-economic backgrounds would be more in line with the expectations held in academically oriented secondary education. However, recent research conducted in the Netherlands shows that teachers’ perceptions of pupils’ work habits can partly account for gender differences in educational recommendations but not for socio-economic differences (Timmermans et al., 2016). A third explanation found in literature is that parents from higher social classes exert pressure on teachers to get a recommendation for academic education (Blossfeld, 2013; Dronkers et al., 1998). A last strand of research focuses on the social cognitive roots of teacher bias (Glock & Krolak-Schwerdt, 2014; Glock et al., 2013 2013). A recent study by Glock and Krolak-Schwerdt (2014) suggests that the activation of stereotypical knowledge in teachers’ information processing when thinking about students of high and low SES might influence teachers’ judgements of these students. Almost all of the aforementioned studies have in common that they primarily take into consideration the influence of individual pupil characteristics on teacher recommendations.

6.2.4 Contextual features and teachers’ recommendations

How could contextual variables influence teacher recommendations? Past research linking structural class characteristics to teacher recommendations has not gone to great lengths to theorize the origins of these links (see: Driessen et al., 2008; Klapproth et al., 2013; Tiedemann & Billmann-Mahecha, 2007; Timmermans et al., 2015; Wagner et al., 2009) (for an exception, see: Schulze et al., 2009). Preceding research had nevertheless already suggested that teachers’ functioning is influenced by the composition of the classroom they teach (Driessen & Sleegers, 2000; McKown & Weinstein, 2008; Raudenbush, Rowan, & Cheong, 1992). Raudenbush and colleagues (1992) demonstrated that teachers feel less efficacious in low-track classes. The
research by Driessen and Sleegers (2000) showed that the socio-economic composition of a classroom influences teacher expectations, albeit in a rather modest way. In fact, teacher expectations are lower in classes with a higher number of disadvantaged pupils. McKown & Weinstein (2008) demonstrated that some teachers in highly diverse classes, operationalized in terms of number of ethnic groups, have lower expectations of African-American and Hispanic students.

Theorizing the relation between class level variables and teacher recommendations is warranted in view of the basic social psychological premise that people’s perceptions and actions are influenced by the immediate context (Sherif & Sherif, 1969). It is therefore plausible that teachers’ recommendations will be influenced by characteristics of the class they teach. Three compositional features might be of particular relevance for teachers’ recommendations, namely the ability composition, the socio-economic composition and the ethnic composition of a class. Although we might expect the latter two contextual features to be interrelated.

It is reasonable to suppose that teachers take into account (their perception of) pupils’ ability when deciding which track to recommend. However, pupils are grouped in classes and teachers face these classes daily, which makes it likely that the class group will function as a frame of reference for teachers’ perceptions. In fact, research has shown that pupils’ GPAs are influenced by a frame-of-reference effect, that is, pupils in low average ability classes receive higher GPAs than equally able pupils in high average ability classes (Marsh, 1987; Trautwein et al., 2006). Similarly, a recent German study showed that, controlling for individual intelligence, the average intelligence level of a class had a negative effect on 3rd graders’ chances of being nominated by their teachers for enrichment programmes for gifted students (Rothenbusch et al., 2016). This strand of research thus suggests that teachers tend to judge pupils’ ability relative to that of the other pupils in the class. It is therefore plausible that teachers’ recommendations for equally able pupils will differ according to the class they are in.

There are at least two reasons why we might expect the socio-economic composition to influence teacher recommendations. First of all, parents of higher socio-economic
backgrounds might push teachers to give their children a recommendation for academic education (see Blossfeld, 2013). The presence of a large number of parents from higher socio-economic backgrounds might create a normative environment that leads teachers to be less strict in their recommendations for all pupils in their class. Teachers will then more easily advise a pupil to enrol in academic education. Secondly, the socio-economic composition of a class might influence teachers’ expectations, which could then in turn influence the recommendations teachers give to pupils in that class. Research on teacher expectancies has long since shown that teachers have lower expectations of pupils of lower social class backgrounds (for early reviews, see: Baron, Tom, & Cooper, 1985; Dusek & Joseph, 1985). While most of these early studies have been geared at demonstrating differential teacher expectancies vis-à-vis individual students using experimental designs, more recent studies based on large scale surveys have shown that a school’s socio-economic composition may impact teachers’ general beliefs towards their students (Agirdag, Van Avermaet, et al., 2013; Rumberger & Palardy, 2005). Agirdag and colleagues (2013) showed that primary school teachers have lower teachability expectations of their pupils in schools with a higher share of children with a working class background. Similarly, Rumberger & Palardy (2005) found that teacher expectations could partly explain the impact of school SES on academic achievement, thereby showing that socio-economic composition of the student population affects teacher expectations. Given these findings, we might expect teachers in low SES schools to be more reluctant to recommend academic education. The ethnic composition of a class might influence teacher recommendations in the same way. In fact, studies on teacher expectancies have repeatedly found that teachers also have lower expectations of ethnic minority pupils (Baron et al., 1985; Dusek & Joseph, 1985). More recent research has demonstrated that teachers tend to have lower expectations of their pupils in schools with a higher share of ethnic minority pupils (Agirdag, Van Avermaet, et al., 2013; Thys & Van Houtte, 2016). We therefore expect that teachers will less often recommend academic education to pupils in classes with a high share of ethnic minority pupils.
Studies examining the influence of class-level characteristics on teacher recommendations have yielded mixed evidence. Some studies found that, after individual pupil performance was controlled for, the ability composition of a class had a negative influence on the probability of receiving a recommendation for the academic track (Driessen et al., 2008; Klapproth et al., 2013; Tiedemann & Billmann-Mahecha, 2007). In fact, pupils in classes with a low mean ability are more likely to get a recommendation to enrol in academic education than equally achieving pupils in classes with high mean ability levels. These studies support the frame-of-reference thesis. However, Schulze and colleagues (2009) did not find clear evidence for the influence of achievement composition of the class. Moreover, they found a positive influence of the socio-economic composition of the classroom. The higher the mean SES of a class, the higher a pupil’s chances of receiving the advice to start in academic education. Similar results were found by Timmermans and colleagues (2015), showing that pupils in classes with relatively few low SES background-pupils have a higher probability of receiving a recommendation for the more demanding tracks. Remarkably in this same study it was found that, controlling for pupils’ individual ability, ability composition had a positive influence on the chance of receiving an advice for a demanding track. This finding runs counter to the frame-of-reference thesis. With regard to the influence of ethnic composition of a class on teacher recommendations, results are also contradictory. In a study conducted in Germany, Kristen (2002) found that the share of pupils of non-German nationality in a class had a negative influence on pupils’ chances of receiving the advice for the more demanding tracks. On the other hand, Driessen and colleagues (2008) found no effect of percentage of ethnic minority disadvantaged pupils in a class on teacher recommendations in their large-scale study in the Netherlands.

The results of the research on the influence of compositional class characteristics on teacher recommendations are inconclusive. This might partly be due to differences in operationalisations. Some studies have aggregated the results of standardized tests to inquire into the impact of ability composition (Driessen et al., 2008; Klapproth et al., 2013; Tiedemann & Billmann-Mahecha, 2007), while others have aggregated pupils’ marks (Schulze et al., 2009). Socio-economic composition has also been measured in
different ways, some authors have operationalized it as percentage of disadvantaged pupils (Driessen et al., 2008), whereas others have used a measure based on parents’ income and education (Schulze et al., 2009), and still others have operationalized it as percentage of pupils with poorly educated parents (Timmermans et al., 2015). Moreover, there has also been variation in the operationalization of the dependent variable. Studies in the Netherlands have treated advice for the different forms of secondary education as an interval variable (Driessen et al., 2008; Timmermans et al., 2015), while studies in Germany have treated teacher recommendations as a dichotomous variable, opposing advice for academic education to advice for technical and vocational education (Schulze et al., 2009), or advice for academic and technical education to advice for vocational education (Kristen, 2002; Tiedemann & Billmann-Mahecha, 2007).

6.2.5 Study setting

The transition from primary to secondary education is the first important branching point in the Flemish education system. After six years of primary education Flemish pupils, normally in the year they turn 12, make the transition to secondary education, which also lasts six years. While primary education is undifferentiated, secondary education is tracked. We can distinguish between four hierarchically ordered tracks: general/academic education, technical education, arts education and vocational education (Figure 6 above). Whereas general/academic education is widely regarded as the most prestigious and demanding track, vocational education has very low esteem and is considered less demanding (Stevens & Vermeersch, 2010). Technical and arts education occupy an intermediate position within this hierarchy of educational tracks. However, according to Flemish educational legislation there are merely two broad tracks during the first two years of secondary education, namely A-stream and B-stream (Department of Education, 2008). B-stream is mainly meant to provide education for pupils that are less fit for theoretical tuition. Yet, most pupils start secondary education in A-stream. A-stream is said to offer a comprehensive curriculum to all pupils, which enables them to explore their talents and interests in view of their allocation to one of the previously mentioned tracks. Nevertheless, there is some differentiation within A-
stream in the form of optional courses such as Latin, modern sciences, technology, arts and so forth. Courses like Latin and modern sciences usually lead to general/academic education, with Latin being the most prestigious option, and being a reference point in pupils’ perception (Boone & Van Houtte, 2013a). Previous qualitative Flemish research has shown that pupils see the option of Latin, and to a lesser extent modern sciences, as a premise for good jobs and chances in higher education. Courses like technology and arts equip pupils for enrolment in technical and arts education. The option of B-stream mostly leads to vocational education. Basically, the transition from primary to secondary education comes down to allocating pupils to B-stream or A-stream, and if pupils are found suitable for A-stream, to either theoretically oriented (Latin and modern sciences) or non-theoretically oriented options (technology and arts) within A-stream. We can therefore say that tracking starts at the age of twelve in Flanders and not at the age of fourteen, as it is officially communicated. In fact, research has demonstrated that the choices made at the transition from primary to secondary education are difficult to revoke (Van Damme et al., 1997). Pupils who start in a technical option usually go on to technical education. Switching back and forth between every educational track is theoretically possible, but in practice pupils almost exclusively “fall back” from academic to technical or vocational tracks (so-called cascade system).

The decentralized nature of the Flemish educational system is reflected in the fact that the process of track assignment is very loosely organized. First of all, there are no centralized examinations that give parents an idea about their children’s position relative to a mean national score. As a result, parents can only rely on the recommendation of the primary school teacher. In addition, there are no preconditions for admission to A- or B-stream, nor for the optional courses within A-stream. Moreover, there are no guidelines as to which criteria teachers should take into account when deciding which course to recommend. Research by Boone & Van Houtte (Boone & Van Houtte) has suggested that Flemish teachers tend to attach a lot of importance to pupils’ study attitude in deciding which alternative to recommend. In this system, which places heavy emphasis on parental choice, the teacher recommendation is the only clue parents get from professionals. While teacher recommendations are non-binding in the
Flemish education system they nevertheless play an important role in the allocation process.

6.2.6 Hypotheses

Considering this loosely organized character of allocation in Flanders, we might expect Flemish teacher recommendations to be especially susceptible to frame-of-reference effects. Moreover, primary school teachers are usually assigned to only one class in Flanders, so they are confronted with the same group of pupils every day. Based on prior theorizing and research we can therefore formulate the following hypotheses:

Hypothesis 1: The ability composition of a class will have a negative influence on teachers’ recommendations once individual ability is controlled for.

Hypothesis 2: The SES composition of a class will have a positive influence on teachers’ recommendations irrespective of pupils own SES.

Hypothesis 3: The share of ethnic minority pupils in a class will have a negative influence on teachers’ recommendations irrespective of pupils own ethnic background.

An important additional matter is whether similar pupils get different recommendations depending on the class composition. Therefore, to ascertain potential moderation of individual effects by contextual features, we also test cross-level interactions between ability composition and individual ability, SES composition and individual SES and ethnic composition and individual ethnic background.

6.2.7 Methodology

6.2.7.1 Sample

Data were collected in May 2015, in 36 primary schools in Ghent and Antwerp, two cities in Flanders, the northern Dutch-speaking part of Belgium. These cities were chosen because of the high density of both primary and secondary schools and because of their high level of ethnic diversity. The data collection was part of a large-scale research project, examining inequality in educational choice at the transition from primary to secondary education. The sample of schools was selected based on school sector and
proportion of low SES pupils. First, the population of schools was divided into public and private schools within each city. We then divided the schools per city and per sector into three equally sized groups according to their percentage of low SES pupils. This percentage is based on information from the Flemish Department of Education (Department of Education, 2015). Using these criteria, random samples were drawn, each comprising 36 schools. We started by contacting the schools in the first sample and in case of refusal to participate (in 17 cases), a corresponding school from the next sample was contacted. In total, 76 schools had to be contacted to reach the intended number of 36 schools for the project; a general response rate of 47.37%. In the end we selected 18 schools of each sector, of which 6 schools stem from the 33% schools with the lowest number of low SES pupils, 6 schools represent the middle group, and 6 schools stem from the 33% schools with the highest number of low SES pupils. A written questionnaire was completed by a total of 1049 sixth-year pupils in 61 classes. Out of a total of 1086 pupils that were eligible to fill in our questionnaire, 37 were absent at the time of survey-completion. We thus obtained a response rate of 95.6% for pupils. However, since some cases had missing values on the included variables, the number of cases varies according to the model analysed (see Table 10 and Table 11). At the same time, we distributed questionnaires for their teachers. We managed to retrieve this questionnaire from all of the 61 sixth-grade teachers; a response rate of 100%. Due to missing data on two variables, the analyses are performed on only 58 out of the original 61 classes. These two variables are (1) the Raventest (see below), which was not performed in two of the 61 classes and (2) the dependent variable teacher recommendation, which was missing in one of the sixth-grade teacher’s questionnaires.

6.2.7.2 Variables

Dependent variable

Educational recommendation. To obtain a measure for educational recommendation, teachers were asked to indicate for every individual pupil which educational alternative they would recommend in the first year of secondary education. First, teachers had to indicate whether the pupil would be advised to start in A- or B-stream. In a second step, teachers had to indicate which option within A-stream they would recommend; Latin,
modern sciences, technology or arts. Since we cannot assume equal intervals between these values, and the variable is in origin a categorical variable, educational recommendation was studied in steps, in which we consider three different dichotomous dependent variables. First, we considered the recommendation for A-(93.7%) (1) or B-stream (6.3%) (0). Next, within A-stream, we distinguished between the theoretical options that are perceived to precede general education (Latin and modern sciences (74.4%)) (1), and the practical options perceived to precede technical or arts education (technology and arts (25.6%)) (0) (see Table 8). Lastly, we looked at the recommendation within the academic options of A-stream, that is Latin (35.3%) (1) and modern sciences (64.7%) (0).

**Individual-level independent variables**

*SES.* Pupils’ socio-economic status was based on parental occupation. In the case of unemployment of one of the parents, previous occupation was used. These parental occupations were recoded according to the International Socio-economic Index of Occupational Status (ISEI) (Ganzeboom et al., 1992). Scores range from 11.74 (equals manual labour without schooling in agricultural sector) to 88.96 (equals judge). To obtain a measure for family SES, the highest ISEI score of the two parents was used. The mean family ISEI score is 51.82, with a standard deviation of 23.38.

*Ethnic background.* As is common in sociological research in the Netherlands and Belgium, pupils’ ethnic background was based on maternal grandmother’s birthplace (Timmerman et al., 2002). Pupils with a maternal grandmother born in Belgium or a North-Western European country were seen as ethnic majority pupils (coded 0), pupils with a maternal grandmother born in other countries were seen as ethnic minority pupils (coded 1). Birthplace of maternal grandmother was used because research has shown that second or third generation pupils are still disadvantaged in education and on the labour market, compared to native pupils (Hammerstedt, 2009; Timmerman et al., 2003). In the sample there are 574 pupils (58.3%) with an ethnic majority background, and 410 (42.7%) with an ethnic minority background.

*Sex.* In the sample there are 495 (48.8%) girls (1) and 520 (51.2%) boys (0).
### Table 8 Descriptive statistics: variables under consideration in study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean or percentage</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-stream or B stream (N=996)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-stream (1)</td>
<td>93.7%</td>
<td></td>
</tr>
<tr>
<td>B-stream (0)</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>A academic or A practical within A stream (N=933)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Academic (1)</td>
<td>74.4%</td>
<td></td>
</tr>
<tr>
<td>A Practical (0)</td>
<td>25.6%</td>
<td></td>
</tr>
<tr>
<td>Latin or modern sciences within A academic (N=694)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Latin (1)</td>
<td>35.3%</td>
<td></td>
</tr>
<tr>
<td>A Modern Sciences (0)</td>
<td>64.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td>51.82</td>
<td>23.38</td>
</tr>
<tr>
<td>Ethnicity (N=984)</td>
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<td></td>
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<tr>
<td>Native (0)</td>
<td>58.3%</td>
<td></td>
</tr>
<tr>
<td>Immigrant (1)</td>
<td>41.7%</td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>42.06</td>
<td>6.50</td>
</tr>
<tr>
<td>Gender (N=956)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls (1)</td>
<td>48.7%</td>
<td></td>
</tr>
<tr>
<td>Boys (0)</td>
<td>51.3%</td>
<td></td>
</tr>
<tr>
<td>SES class composition</td>
<td>51.28</td>
<td>12.43</td>
</tr>
<tr>
<td>Ethnic class composition</td>
<td>42.33</td>
<td>28.16</td>
</tr>
<tr>
<td>Average ability</td>
<td>42.03</td>
<td>2.39</td>
</tr>
</tbody>
</table>

**Ability.** Ability was measured using a standardized Raven test that measured pupils’ capacity for abstract reasoning. This test consists of 60 items and each correct answer is awarded one point, so that theoretically pupils could score from 0 to 60. The average score in our sample is 42.06 (with a standard deviation of 6.50), a minimum score of 13, and a maximum score of 55.
Class-level independent variables

**SES composition.** SES composition of the classroom was operationalized as the mean of pupils’ ISEI-score per class. The lowest SES composition is 24.10, and the highest is 74.20. The mean SES composition is 51.28 with a standard deviation of 12.43.

**Ethnic composition.** Ethnic composition of the classroom was operationalized as the percentage of ethnic minority students per class. The percentages range from 0% (no pupils with an ethnic minority background in a class) to 100% (all pupils have an ethnic minority background). The mean is 42.33, with a standard deviation of 28.16.

**Ability composition.** The average ability score was aggregated to the class-level to obtain a measure for ability composition of each class. The lowest average ability composition score is 35.40 and the highest is 46.45. Mean average ability is 41.42 with a standard deviation of 2.72.

For the bivariate correlations between the variables at the class-level, see Table 9.

<table>
<thead>
<tr>
<th>Variables</th>
<th>SES composition</th>
<th>Average ability</th>
<th>Ethnic composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES composition</td>
<td>1</td>
<td>0.593**</td>
<td>-0.878**</td>
</tr>
<tr>
<td>Average ability</td>
<td>0.593**</td>
<td>1</td>
<td>-0.610**</td>
</tr>
<tr>
<td>Ethnic composition</td>
<td>-0.878**</td>
<td>-0.610**</td>
<td>1</td>
</tr>
</tbody>
</table>

*p ≤ .05, **p ≤ .01, ***p ≤ .001

6.2.7.3 Design

By means of multilevel-analysis, we studied whether the recommendation of a sixth-grade teacher varies according to SES, ethnic and ability composition of the class. Considering the clustered sample of pupils nested within classes, multilevel analysis was the most appropriate technique. Since the outcome variables were dichotomous, we performed two-level hierarchical logistic analyses (using MLwiN, version 2.26). The Iterative Generalised Least Squares method was applied and the algorithm converged, using second order Penalized Quasi Likelihood approximations (PQL). These are considered more accurate than first order MQL approximations (Hox, 2010; Kreeft & De
Leeuw, 1988; Rodriguez & Goldman, 2001). We assume that teachers consider a series of binary choices when recommending an educational alternative at the transition from primary to secondary education. First, sixth-grade teachers have to choose to recommend A- or B-stream. For the current study, we chose to include only the recommendations within A-stream, which is given to a vast majority of the pupils (93.7%). The minority of pupils to whom B-stream is recommended, have mostly been experiencing prior study difficulties or did not obtain the certificate of primary education. Hence, the recommendation for B-stream is almost entirely determined by pupils’ school performance (Van Houtte & Boone, 2012). Subsequently, within A-stream, teachers can decide to recommend an academic option or a more practical option. Finally, within the academic option, teachers can recommend Latin or modern sciences. We investigated the determinants of these two binary choices within A-stream in two separate analyses, using random intercept models.

Each of these two analyses starts with estimating an unconditional model to divide the outcome variance into a within-class and between-class variance component. Although some say that this is not appropriate for hierarchical logistic models - because the outcome is dichotomous - the between-class variance components can give an idea of the importance of considering class-level variables (Frost, 2007; Lee & Burkam, 2003). After this, we tested the relationship between SES, ethnic and ability composition of the class and the educational recommendation made by the teacher. Because of the very high correlation between SES and ethnic composition of the classroom (Pearson $r = -0.878$, $p<0.01$), we chose to include these variables separately in different models, following Agirdag and colleagues (2013). The second model investigated whether these relationships gain or lose significance when controlling for individual-level SES, ethnicity, ability and gender. We controlled for these variables because previous research indicates that the educational recommendation of teachers is influenced by these individual pupil characteristics (Boone & Van Houtte, 2013b). Lastly, we are not only interested in the effect of class composition variables in general, but also in the moderating impact of class composition on individual variables. Therefore, the third model includes cross-level interactions between every composition variable and the
corresponding individual variable. This way, we examine whether the impact of pupils’ individual features is moderated by the class composition. Every independent variable was grand mean centred – except for the dummy variables ethnicity and gender – since this facilitates substantive interpretation of the effects, especially for the cross-level interactions.

6.2.8 Results

For the first recommendation within A-stream, namely the choice between an academic or a practical option, the between-class variance in the unconditional model was 0.533 (SE 0.168). The first model of the multilevel analysis indicated a positive association between the mean SES of the class and the recommendation for an academic track, without controlling for pupils’ individual characteristics (OR= 1.045, p< 0.001) (Table 10, model 1a). Teachers teaching a class with a high average SES were more likely to recommend an academic track to their pupils. The first model including ethnic composition of the classroom, showed that the ethnic composition of the class was not significantly related to teacher’s recommendation (see Table 10, model 1b). As expected, we did not find an association between the ability composition and teacher’s recommendation without controlling for individual pupil characteristics. The second model showed the significance of individual SES, ethnic background, ability and gender. A high individual SES increases the odds of getting the advice to enrol in an academic option within A-stream (OR= 1.025, p< 0.001) (see Table 10, model 2a). For pupils with a high SES (based on the 75th percentile), the probability of getting the advice to enrol in an academic option was 64%, while this probability was 36% for pupils with a low SES (based on the 25th percentile). Similarly, teachers were more likely to recommend an academic option within A-stream to a pupil from the ethnic majority than to an equally able pupil with an immigrant background (OR= 0.563, p< 0.01) (see Table 10, model 2b). The difference in probability to get the advice to enrol in an academic option between pupils from the ethnic minority and the ethnic majority is 14 percentage points. Furthermore, the better a pupil’s result on the Raven-test, the more likely that the teacher will recommend an academic track (see Table 10, models 2). Also, teachers were more likely to recommend an academic track to girls than to boys.
The second model did not confirm the effect of SES composition of the class found in model one. The effect of SES class composition lost significance and the effect-size almost halved once we controlled for pupils' individual SES (see Table 10, model 2a). In this model, the effect of SES composition remains marginally significant. However, the average ability in the classroom showed a significant negative relationship with teacher's recommendation, once we controlled for individual ability (see Table 10, models 2). Sixth-grade teachers were less likely to recommend an academic track in high ability classes. In a classroom with an average ability, the probability of a pupil to get the advice to enrol in an academic track is 45%, whereas this probability is 58% in a classroom with a low average ability (based on the 25th percentile and on model 2a). This finding seems to confirm the existence of frame-of-reference effects on teacher recommendations based on ability composition. To further test this hypothesis, we investigated the significance of an interaction effect between individual ability and ability composition (see Table 10, models 3). This interaction effect showed significance in the model including pupil’s ethnicity and ethnic composition of the classroom (OR=1.014, p<0.05) (see Table 10, model 3b). Teachers are more likely to recommend an academic option to pupils with a low individual ability in a low average ability class than to pupils with the same ability in a high average ability class (see Figure 9). The same reasoning holds for pupils with a mean individual ability score. Pupils with a high individual ability seemed least affected by the average ability of the classroom. We also examined interactions between the two other composition variables and the corresponding individual variable, but these were not significant.
Table 10 Results study 2: Academic (1) or Practical recommendation (0)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\gamma$</td>
<td>1.121 (0.113)***</td>
<td>1.139 (0.124)***</td>
<td>1.096 (0.159)***</td>
<td>1.296 (0.193)***</td>
<td>1.041 (0.164)***</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>3.068</td>
<td>3.124</td>
<td>2.992</td>
<td>3.655</td>
<td>2.832</td>
</tr>
<tr>
<td>SES composition</td>
<td>$\gamma$</td>
<td>0.044 (0.012)***</td>
<td>--</td>
<td>0.026 (0.015)*</td>
<td>--</td>
<td>0.026 (0.015)*</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.045</td>
<td>1.026</td>
<td>--</td>
<td>1.026</td>
<td>--</td>
</tr>
<tr>
<td>Ethnic composition</td>
<td>$\gamma$</td>
<td>--</td>
<td>0.009 (0.006)</td>
<td>--</td>
<td>0.007 (0.007)</td>
<td>0.008 (0.007)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.991</td>
<td>0.993</td>
<td>0.993</td>
<td>--</td>
<td>0.992</td>
</tr>
<tr>
<td>Average ability</td>
<td>$\gamma$</td>
<td>-0.074 (0.058)</td>
<td>-0.011 (0.064)</td>
<td>-0.211 (0.071)**</td>
<td>-0.146 (0.078)*</td>
<td>-0.120 (0.078)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.929</td>
<td>0.989</td>
<td>0.810</td>
<td>0.864</td>
<td>0.829</td>
</tr>
<tr>
<td>SES</td>
<td>$\gamma$</td>
<td>0.025 (0.005)***</td>
<td>0.026 (0.005)</td>
<td>--</td>
<td>0.024 (0.005)***</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.025</td>
<td>1.024</td>
<td>--</td>
<td>1.024</td>
<td>--</td>
</tr>
<tr>
<td>Ethnicity - immigrant (1)</td>
<td>$\gamma$</td>
<td>--</td>
<td>--</td>
<td>-0.575 (0.212)**</td>
<td>--</td>
<td>-0.532 (0.213)*</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>--</td>
<td>--</td>
<td>0.563</td>
<td>--</td>
<td>0.587</td>
</tr>
<tr>
<td>Ability</td>
<td>$\gamma$</td>
<td>0.126 (0.017)***</td>
<td>0.138 (0.016)***</td>
<td>0.128 (0.017)***</td>
<td>0.140 (0.017)***</td>
<td>0.140 (0.017)***</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.134</td>
<td>1.148</td>
<td>1.137</td>
<td>1.150</td>
<td>1.150</td>
</tr>
<tr>
<td>Gender - girl (1)</td>
<td>$\gamma$</td>
<td>0.491 (0.188)**</td>
<td>0.442 (0.184)*</td>
<td>0.496 (0.189)**</td>
<td>0.457 (0.185)*</td>
<td>0.457 (0.185)*</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.634</td>
<td>1.556</td>
<td>1.642</td>
<td>1.579</td>
<td>1.579</td>
</tr>
<tr>
<td>Ability composition</td>
<td>$\gamma$</td>
<td>--</td>
<td>--</td>
<td>0.011 (0.007)</td>
<td>0.014 (0.007)</td>
<td>0.014 (0.007)</td>
</tr>
<tr>
<td>Ability</td>
<td>Odds ratio</td>
<td>--</td>
<td>--</td>
<td>1.011</td>
<td>--</td>
<td>1.014</td>
</tr>
<tr>
<td>Between class variance</td>
<td>$\gamma$</td>
<td>0.342 (0.133)</td>
<td>0.486 (0.162)</td>
<td>0.516 (0.188)</td>
<td>0.700 (0.221)</td>
<td>0.533 (0.192)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.342</td>
<td>0.486</td>
<td>0.516</td>
<td>0.700</td>
<td>0.533</td>
</tr>
<tr>
<td>Number of pupils</td>
<td>914</td>
<td>914</td>
<td>841</td>
<td>834</td>
<td>841</td>
<td>834</td>
</tr>
<tr>
<td>Number of classes</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
</tr>
</tbody>
</table>

Note: Presented are the gamma coefficients ($\gamma$) with standard errors between brackets, and odds ratios. °p ≤ .10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.
Figure 9 The interaction between ability and ability composition of the classroom

Note: The yellow line presents probabilities for pupils situated at the lowest quartile of the variable ‘ability’ (38), the green line plots probabilities for pupils situated at the mean of the variable ‘ability’ (42.06), the purple line plots probabilities for pupils situated at the highest quartile of the variable ‘ability’ (47).

For the recommendation within the academic options of A-stream; Latin or modern sciences, the unconditional model indicated a variance at the class level of 0.148 (SE= 0.096). Because this variance is only an indicator of the importance of the class level, and because we are dealing with data at both class- and individual level, we proceeded with our multilevel analyses. The first model displayed a significant effect of SES class composition, without controlling for individual variables (OR= 1.028, p< 0.01) (See Table 11, model 1a). This means that teachers were more likely to recommend Latin, when the average SES in the class is high. The first model including ethnic composition of the classroom, indicated that the ethnic class composition is significantly negatively related to teacher’s recommendation (OR= 0.991, p<0.05) (see Table 11, model 1b). When the percentage of ethnic minority students in the class is high, a teacher was less likely to
recommend Latin. As in the first analysis, ability composition was unrelated to the recommendations in a model without individual controls.

The second model, including pupils’ individual variables, showed the significance of a pupil’s individual SES, ethnicity and ability for this teacher recommendation. Teachers were more likely to recommend Latin to pupils with a high SES, irrespective of a pupil’s ability (OR= 1.021, p< 0.001) (see Table 11, model 2a). The probability to get the advice to enrol in Latin was 38% for pupils with a low SES (based on the 25th percentile), while this probability was 62% for a pupil with a high SES (based on the 75th percentile). Furthermore, teachers were less likely to recommend Latin to pupils with an immigrant background (OR= 0.298, p< 0.001) (see Table 11, model 2b). The difference in probability to get the advice to enrol in Latin between immigrant pupils and native pupils was 27 percentage points. Additionally, high individual ability implied higher odds of getting the advice to enrol in Latin (OR= 0.124, p< 0.001) (see Table 11, model 2a). For this analysis, there was no effect of gender on the recommendation for Latin versus modern sciences. Unlike in the previous analyses, the average ability in the classroom was not significantly related to a teacher’s recommendation for Latin or modern sciences, when controlling for individual variables. Also, the effect of SES composition disappeared upon control for pupils’ SES (see Table 11, model 2a). This means that the SES composition effect in model one, was a selection effect. The same holds for the effect of ethnic composition that appeared no longer significant when controlling for individual ethnicity. Interactions between the composition variables and the corresponding individual variables were non-significant.
Table 11 Results study 2: Recommendation for Latin (1) or modern sciences (0)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intercept</strong></td>
<td>$\gamma$ -0.675 (0.086)**</td>
<td>$\gamma$ -0.643 (0.085)**</td>
<td>$\gamma$ -0.977 (0.155)**</td>
<td>$\gamma$ -0.444 (0.176)*</td>
</tr>
<tr>
<td></td>
<td>Odds ratio 0.509</td>
<td>Odds ratio 0.526</td>
<td>Odds ratio 0.376</td>
<td>Odds ratio 0.641</td>
</tr>
<tr>
<td><strong>SES composition</strong></td>
<td>$\gamma$ 0.028 (0.009)**</td>
<td>$\gamma$ -0.009 (0.004)*</td>
<td>$\gamma$ 0.014 (0.013)</td>
<td>$\gamma$ 0.001 (0.006)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio 1.028</td>
<td>Odds ratio 0.991</td>
<td>Odds ratio 1.014</td>
<td>Odds ratio 1.001</td>
</tr>
<tr>
<td><strong>Ethnic composition</strong></td>
<td>$\gamma$ --</td>
<td>$\gamma$ -0.009 (0.004)*</td>
<td>$\gamma$ --</td>
<td>$\gamma$ 0.001 (0.006)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio --</td>
<td>Odds ratio 0.991</td>
<td>Odds ratio --</td>
<td>Odds ratio 1.001</td>
</tr>
<tr>
<td><strong>Average ability</strong></td>
<td>$\gamma$ 0.035 (0.043)</td>
<td>$\gamma$ 0.059 (0.043)</td>
<td>$\gamma$ -0.077 (0.058)</td>
<td>$\gamma$ -0.041 (0.063)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio 1.036</td>
<td>Odds ratio 1.061</td>
<td>Odds ratio 0.926</td>
<td>Odds ratio 0.960</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>$\gamma$ --</td>
<td>$\gamma$ --</td>
<td>$\gamma$ 0.021 (0.005)**</td>
<td>$\gamma$ --</td>
</tr>
<tr>
<td></td>
<td>Odds ratio --</td>
<td>Odds ratio --</td>
<td>Odds ratio 1.021</td>
<td>Odds ratio --</td>
</tr>
<tr>
<td><strong>Ethnicity – immigrant (1)</strong></td>
<td>$\gamma$ --</td>
<td>$\gamma$ --</td>
<td>$\gamma$ --</td>
<td>$\gamma$ -1.211 (0.257)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio --</td>
<td>Odds ratio --</td>
<td>Odds ratio --</td>
<td>Odds ratio 0.298</td>
</tr>
<tr>
<td><strong>Ability</strong></td>
<td>$\gamma$ 0.124 (0.019)**</td>
<td>$\gamma$ 0.135 (0.019)**</td>
<td>$\gamma$ 1.132</td>
<td>$\gamma$ 1.145</td>
</tr>
<tr>
<td></td>
<td>Odds ratio 1.132</td>
<td>Odds ratio 1.145</td>
<td>Odds ratio 1.132</td>
<td>Odds ratio 1.145</td>
</tr>
<tr>
<td><strong>Gender – girl (1)</strong></td>
<td>$\gamma$ -0.052 (0.183)</td>
<td>$\gamma$ -0.098 (0.186)</td>
<td>$\gamma$ 0.949</td>
<td>$\gamma$ 0.907</td>
</tr>
<tr>
<td></td>
<td>Odds ratio 0.949</td>
<td>Odds ratio 0.907</td>
<td>Odds ratio 0.949</td>
<td>Odds ratio 0.907</td>
</tr>
<tr>
<td><strong>Between class variance</strong></td>
<td>0.000 (0.000)</td>
<td>0.004 (0.064)</td>
<td>0.136 (0.108)</td>
<td>0.228 (0.131)</td>
</tr>
<tr>
<td><strong>Number of pupils</strong></td>
<td>681</td>
<td>681</td>
<td>632</td>
<td>622</td>
</tr>
<tr>
<td><strong>Number of classes</strong></td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
</tr>
</tbody>
</table>

*Note: Presented are the gamma coefficients ($\gamma$) with standard errors between brackets, and odds ratios. *p ≤ .05, **p ≤ .01, ***p ≤ .001.*
6.2.9 Discussion

The aim of this study was to inquire into the potential influence of three compositional class characteristics, that is ability composition, socio-economic composition and ethnic composition, on teacher track recommendations at the transition from primary to secondary education in Flanders. As there are no central guidelines in Flemish education regarding the criteria teachers should consider when formulating a recommendation, we expected teacher recommendations to be especially susceptible to frame-of-reference effects. More precisely, we expected to find a negative effect of ability composition when controlling for individual ability (hypothesis 1), a positive effect of socio-economic composition (hypothesis 2) and a negative effect of ethnic composition on teacher recommendations (hypothesis 3). In addition, we also examined potential moderation of individual effects by class level characteristics by testing cross-level interactions between every compositional and the corresponding individual variable.

The first hypothesis could be confirmed for the recommendation for the academic options rather than the practical option. In fact, a pupil in a high ability class is less likely to be advised to start in an academic course than an equally able pupil in a lower ability class. We thus found a frame-of-reference effect for this particular recommendation. This finding is in line with findings of earlier studies conducted in countries with similar education systems (e.g. the Netherlands: Driessen et al., 2008; Luxembourg: Klapproth et al., 2013; Germany: Tiedemann & Billmann-Mahecha, 2007). The first hypothesis could, however, not be confirmed for the recommendation for Latin versus modern sciences. This does not come as a surprise as the divide between academic and practical courses is more discriminating in the selection process than the distinction between Latin and modern sciences.

The second hypothesis could not be confirmed by our analyses. Class socio-economic composition did not influence teachers’ recommendations, irrespective of pupils’ own SES. We hypothesize that this might be due to the fact that that teacher recommendations are not binding in Flanders. As there is less at stake for parents, teachers might experience less parent pressure (Dronkers et al., 1998). We speculate
that the influence of class socio-economic composition would be more pronounced in education systems with binding teacher recommendations. Prior research that found class socio-economic composition to be of influence on teacher recommendations was conducted in education systems that attach more importance to recommendations in allocation (e.g. Germany: Schulze et al., 2009; the Netherlands: Timmermans et al., 2015).

The third hypothesis, which predicted a negative influence of ethnic composition on teacher recommendations, could not be confirmed. Although prior research in Flanders had shown that teachers in schools with a higher share of ethnic minority pupils have lower expectations of their pupils (Thys & Van Houtte, 2016), this does not seem to translate into lower recommendations. This finding is in line with research conducted in the Netherlands by Driessen and colleagues (2008), but it is in contradiction with the findings by Kristen (2002) in Germany. However, while we found that the percentage of pupils with an immigrant background in a class has no influence on teachers’ recommendations over and above the effect of individual ethnic background, this should not obscure the fact that pupils with an immigrant background are clearly disadvantaged. In fact, the latter less often receive the advice to start in academically oriented options and within the academic options the advice to start in Latin than equally able pupils without migration background.

The cross-level interactions did not prove significant, except for the interaction effect between average ability and individual ability. A pupil with a low individual ability is more likely to get the recommendation to enrol in an academic option in a low ability class than in a high ability class. However, this interaction is significant only in the model that includes individual ethnic background and ethnic composition of the classroom. We carefully hypothesize that this might be due to ethnic bias in teacher expectations (Thys & Van Houtte, 2016), but future research would need to clarify this.

The effects of individual SES and ethnic background were, however, not affected by class SES or ethnic composition respectively. With regard to the influence of the other individual pupil characteristics, our analyses are in line with the findings of the study by
Boone & Van Houtte (2013b) concerning the influence of pupils’ SES background on teacher recommendations in Flanders. In fact, pupils from higher SES backgrounds were more likely to receive the recommendation to start secondary education in academic courses, and within academic courses in the option of Latin, than equally able pupils from lower SES backgrounds. In addition, there was a remarkable gender effect on the recommendation for an academic versus practical option. Girls were more likely to receive the advice to start in an academic option than equally able boys. A recent study by Timmermans and colleagues (2016) suggests that this could be due to teachers’ positive perceptions of girls’ work habits.

There are several limitations to our study. First of all, our study is limited to a sample of schools in the cities of Antwerp and Ghent. The findings of our study can therefore not be generalized to the rest of Flanders. Research by Dronkers and colleagues (1998) has suggested that pupils in the largest cities of the Netherlands more often receive the advice to enrol in academic options in secondary education than pupils in the rest of the Netherlands, irrespective of achievement. We should therefore be aware that these results might be specific to the urban context and cannot be generalized to more rural areas. Secondly, because of the very strong correlation between pupils’ ethnic background and their socio-economic background it is hard to disentangle their respective influence. Thirdly, we have limited ourselves to studying the potential influence of the percentage of pupils with an immigrant background in a class on teacher recommendations, while research suggests that classroom diversity might also play an important role (McKown & Weinstein, 2008). However, our data do not permit us to adequately study possible interaction effects of classroom diversity and individual ethnic origin on teacher recommendations, for the different subgroups of students are not large enough to make sound statements about this. Future research could try to fill this lacuna by investigating whether certain groups of immigrant pupils are more disadvantaged in terms of the recommendation they get when the class is more or less ethnically diverse. Furthermore, our study looks only at the mean percentage of ethnic minority students. Future studies should consider the effect of the variation in classroom diversity, for example by means of a Herfindahl-index (Putnam, 2007).
All in all, based on this study we can say that class-level contextual variables are of limited influence on teacher recommendations at the transition from primary to secondary education in metropolitan urban contexts in Flanders. Only the ability composition of a class exerts an influence, as we expected based on earlier findings about class average ability on teachers’ grading of pupils achievement (Marsh, 1987; Trautwein et al., 2006). However, nor SES composition nor ethnic composition of a class impacts teacher recommendations. This means that pupils in highly segregated classes do not benefit or, conversely, are not disadvantaged based on the composition of the classroom in which they happen to be. Nevertheless, the clear influence of individual SES and ethnic background on teacher recommendations irrespective of ability – although difficult to disentangle – shows that teacher bias continues to be an important issue to be addressed by future research.
6.3 Inequality in teacher recommendations and the school as learning context

6.3.1 Abstract

**Background:** Research on teacher recommendations has paid little attention to the role of school policy. However, in order to diminish social bias in educational recommendations, the extent to which the school pays explicit attention to educational allocation could raise teachers’ awareness of social bias.

**Aim:** This study investigates whether teachers’ perceptions of their school’s explicit attention to educational allocation influence the extent to which teacher recommendations are socially biased and include class-related aspects as important criteria.

**Design:** Logistic multilevel analyses were conducted on data gathered in May 2015, in 36 Flemish primary schools, from 1049 sixth-grade pupils and 471 teachers.

**Results:** Findings show a small but marginally significant effect of a school’s explicit attention to educational allocation on social bias in educational recommendations. At schools where teachers perceive that explicit attention is paid to educational allocation, the effect of SES on teacher recommendations is stronger: the gap in teacher recommendations for lower and higher SES students is larger.

**Conclusions:** Results suggest that teachers and schools are unaware of the class-related character of pupils’ non-cognitive attributes that influence educational recommendations. It appears that educational allocation is framed in terms of a meritocratic perspective, where teachers acts as gatekeepers in transition moments.

Keywords: Social inequality, educational recommendation, teacher professional development, primary education

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3 This chapter is currently under review for publication in Teacher College Record as Thys, S. & Van Houtte, M. (2017) Inequality in educational choice: Does a school’s explicit attention to educational allocation make a difference?
6.3.2 Introduction

The way students are sorted into tracks is seen as an important mechanism influencing the (in)equality of education systems (Jackson & Jonsson, 2013). The role of teachers in this allocation process, is emphasized by Esser (2016) in his conceptualization of the tertiary effect of social class. This tertiary effect adds to Boudon’s (1974) original distinction between primary and secondary effects, and concerns the inequality in educational attainment through the allocation process including varying teacher ‘expectations, efforts, evaluations and recommendations’ (Esser, 2016, p. 30). Several studies have confirmed that a tertiary effect exists at the transition from primary to secondary education, by showing that teacher recommendations are biased by pupils’ socio-economic backgrounds (Barg, 2012; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner et al., 2009). Pupils from a higher socio-economic background have a higher probability to receive the advice to enrol in an academic track in secondary education, irrespective of achievement.

Attenuating social bias in educational recommendations is an important concern for educational policy, since teacher recommendations typically provide pupils and their parents with important information about the suitability of educational options, and since the track entered at the beginning of secondary education tends to have lasting consequences for pupils’ educational trajectories. Scholars have contributed to this end, in searching for explanations for the biased nature of educational recommendations (e.g. Bonizzoni et al., 2016; Boone & Van Houtte, 2013b). These explanations have been centred at individual class-related pupil characteristics (such as classroom behaviour and parental involvement) that teachers take into account in formulating an educational advice.

One way to diminish social bias in teacher recommendations is to raise awareness of the class-related nature of these criteria and to professionalize teachers in educational allocation. For teachers to be able to do this, it is of vital importance that they perceive of the school as facilitating debate and cooperation on this aspect of the teaching profession (as is also argued in studies on school-based teacher learning, for example
Borko, Jacobs, & Koellner, 2010; Louws et al., 2017; Scribner, 1999). Especially in the Flemish educational context, where schools and teachers enjoy a lot of autonomy in the organization of educational allocation, the extent to which teachers perceive that allocation is explicitly considered as part of the school policy can influence the social bias in teacher recommendations. Studies on school-based professional development suggest that the organizational learning goals set by the school influence (the direction of) teachers’ learning (Coburn, 2001; Louws et al., 2017). In this respect teachers’ sense-making of educational allocation as a righteous organizational learning goal at their school could encourage teachers to reflect on the way educational recommendations are formulated. Nevertheless, literature that investigates the role of the teacher in educational allocation has paid little attention to the broader school context within which the teacher operates.

Therefore, this study aims to examine the role of teachers’ perceptions of the school’s explicit attention to educational allocation, as a means of providing opportunities to professionalize and cooperate on this matter, in the relationship between pupils’ SES and the teacher recommendation at the transition from primary to secondary education in Flanders, the Northern, Dutch-speaking part of Belgium. This way, the current study contributes to the literature on professional development and to the literature on educational allocation by adding a focus on the role of a school’s policy on educational allocation for teacher recommendations.

6.3.3 Theoretical framework

6.3.3.1 Social bias in teacher recommendations

An increasing amount of studies is devoting attention to teachers’ orientation practices and their role in reproducing social inequality (e.g. Bonizzoni et al., 2016; Boone & Van Houtte, 2013b). Research has shown that teacher recommendations at the transition from primary to secondary education are biased by pupils’ socio-economic background (Barg, 2012; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner et al., 2009). Studies investigating teacher recommendations have focused on trying to explain this biased nature but have been centred at the individual level. Broadly speaking, previous
research points to two main aspects that influence teachers in their recommendations and that would account for the social bias (Bonizzoni et al., 2016). First, the extent to which parents are able to support their children with school affairs and are involved in the decision-making process, has been shown to influence teacher recommendations. Barg (2012) argued that the school staff’s tracking decisions reproduce class differences because they are driven by parents’ requests for a specific recommendation. Barg’s (2012) model further suggests that teachers assess a student’s probability to succeed in the most demanding option of upper secondary education according to parents’ involvement in parent associations. Other studies confirm the fact that teachers take into account perceptions of parental support and involvement in formulating an educational recommendation (Ditton et al., 2005; Duru-Bellat, 2002).

Second, Boone and Van Houtte (2013b) suggest that the primary school teacher takes into account student behaviour in the classroom in deciding which track to recommend. Specific behaviours (e.g. self-reliance, capacity to plan and punctuality) that are seen by teachers as more suitable for the academically oriented tracks, are also more typical of the middle class, expressing a class-based habitus. However, this result has been contradicted by a study of Timmermans and colleagues (2016), showing that teachers’ perceptions of pupils’ work habits account for gender differences in educational recommendations but not for socio-economic differences. Nevertheless, a recent Italian study of Bonizzoni and colleagues (2016) demonstrate how teachers tend to direct students with a migrant background towards less ambitious educational upper secondary school tracks to protect them from failure, because they believe they would not ‘fit in’ in the university-oriented tracks based on assumptions of these pupils’ socio-economic status and the availability of cultural and linguistic resources. In addition, studies have shown that stereotypical expectations are activated when teachers’ judge and allocate pupils of ethnic minority or low socio-economic background (Glock & Krolak-Schwerdt, 2014 Krolak-Schwerdt, Klapproth & Böhmer, 2013).

Oakes and Guiton (1995) argue that teachers perceive of track placement as meritocratic and reflecting the achievement distribution among students, along with other relevant characteristics such as effort and interest, in line with a human capital
perspective. In his literature review on socio-economic stratification in school and occupational attainment, Farkas (2003) argued that it is highly determined by ‘patterns of habitual behaviour’, such as good work habits and conscientiousness. Thus, since teachers presumably perceive of non-cognitive characteristics such as study attitude and parental support as providing important information for future performance, it seems logical that teachers take to these aspects into account in formulating an educational recommendation, over and above current performance. This is also in line with the recently advocated shift to a multi-dimensional assessment culture that aims at a more broad and context-embedded assessment for pupils’ learning (Birenbaum et al., 2006). Nevertheless, since a class-based nature of these behaviours is not too farfetched, inequality could unintentionally be reproduced if awareness about the class-related character is missing.

6.3.3.2 The role of the primary school in educational allocation

Studies on social bias in teacher judgements suggest that teachers should be made more aware of this (e.g. Boone & Van Houtte, 2013b; Glock et al., 2013). In line with this suggestion, it is assumed that providing opportunities to professionalize teachers in terms of confronting them with judgement bias could diminish inequality. The importance of teachers’ professional development and continuous learning reflects in the upsurge of studies in this field (Antoniou & Kyriakides, 2011; Avalos, 2011; Borko, 2004; Borko et al., 2010; Scribner, 1999). Teachers’ learning opportunities are generally framed in terms of achieving better performance results for students, while other aspects of teaching and the classroom practice receive less attention (Avalos, 2011; Borko et al., 2010). However, teachers’ professional development can also be of importance in terms of educational inequality and more specifically in terms of educational allocation. Especially in the Flemish context, where there are no specific guidelines on how to formulate an educational recommendation, teachers’ professional development in track placement, can be of particular importance for social bias in teacher recommendations.
The dominant view on teachers’ professional development has shifted from a focus on in-service fragmented trainings (such as workshops or courses taught outside school) to teachers’ continuous, school-based learning (Borko et al., 2010). Similarly, research directed attention towards specific working conditions that encourage teachers’ ongoing professional development in their daily practice at school (Scribner, 1999). Literature in this tradition has shown that teachers’ working conditions at school influence the effectiveness of teachers’ professional development and learning (Imants, Wubbels, & Vermunt, 2013; Louws et al., 2017). Louws and colleagues (2017) argue that the school can steer the direction of teachers’ learning - and can thus influence which goals teachers set as important learning goals - by a clear vision on the content of professional development and by collaboratively discussing the most important issues for professional development. Through a sense-making process, teachers then integrate the organizational learning goals in their own concerns. This sense-making does not entail a one-way influence of the school on what teachers learn. Rather, it entails a balancing between individual goals and collective goals set by the school. This sense-making process, as also elaborated on by Coburn (Coburn), points to the importance of considering teachers’ perceptions of the school as a learning environment. According to Louws and colleagues (2017) teachers’ self-regulated learning – i.e. learning as self-directed in terms of teachers taking ownership of their learning – is enabled by school factors such as the provision of opportunities for learning (e.g. learning time and materials) and for teacher collaboration. In contrast, teachers’ self-regulated learning is restricted by the lack of a shared understanding of the schools’ organizational goals (i.e. the lack of a clear vision) and by the lack of school policies and procedures for professional development.

This literature on teachers’ professional development points to the impact of school specific policies for teachers’ learning opportunities. In addition, research has shown that teachers adapt their pedagogic behaviour and beliefs to the school context (Stevens, 2007; Stevens & Vermeersch, 2010; Van Houtte, 2011b; Van Zanten, 2005). More specifically, with regard to educational allocation, studies have shown how high school tracking decisions differ between schools, due to organizational exigencies.
(Oakes & Guiton, 1995), school composition (Kelly & Price, 2011) or unstated rules of mobility (Cicourel & Kitsuse, 1978). Although these studies were conducted in the US, where differentiation exists in the form of within-school tracking in comprehensive secondary education, it seems reasonable to assume that school features are also relevant for educational allocation in European education systems, where a first important transition moment is usually situated at the transition from primary to secondary education. In addition, the findings of Louws and colleagues (2017) suggest that schools that set explicit organizational learning goals concerning educational allocation, thereby building a shared understanding of the schools’ vision on track placement, could encourage teachers to integrate this learning goals in their own concerns and direct their learning towards this goal. Especially in the Flemish educational context, where schools and teachers enjoy a lot of autonomy in organizing educational allocation, the extent to which the school encourages professional development in track placement can be of particular importance for social bias in teacher recommendations.

6.3.4 Current study

Overall, teachers’ learning is mostly seen as beneficial for student cognitive outcomes only, where especially mathematics and science achievement are vital, while other aspects of the classroom practice received less attention (Borko et al., 2010). Nevertheless, teachers’ learning can also impact on educational inequality, through diminished social bias in teacher judgments and recommendations at transition moments. Since there are no specific guidelines on how to formulate an educational recommendation in the Flemish educational context, and teachers and schools enjoy a lot of autonomy in organizing the allocation process, the extent to which teachers are encouraged for professional development in track placement, can be of particular importance for biased educational recommendations in Flanders. Moreover, literature points to the influence of a school’s policy as a means of setting learning goals and

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4 That is school size, test score variation, the relative number of minority students and students who receive free or reduced lunch.
Empirical studies providing opportunities to learn (Louws et al., 2017). Therefore, this study examines the role of teachers’ perceptions of the school’s explicit attention to educational allocation, in terms of providing opportunities to professionalize and cooperate on this matter, in the relationship between pupils’ SES and the teacher recommendation at the transition from primary to secondary education in Flanders, the Northern, Dutch-speaking part of Belgium. For social bias in educational recommendations, studies have pointed to the importance of teacher perceptions of two main students’ class related attributes: study attitude and parental support (Bonizzoni et al., 2016). However, few of these studies have thoroughly investigated both explanations quantitatively. Therefore, this study assesses the validity of the dominant explanations of social bias in teacher recommendations.

In sum, this study investigates whether the dominant explanations for social bias in teacher recommendations are solid, and whether a school’s explicit attention to educational orientation will influence the social bias, presumably coming from the consideration of these two class-based student attributes. We aim to investigate whether a school’s explicit attention to educational allocation influences the extent to which teachers and schools consider these aspects (pupils’ study attitude and parental support) as important determinants of educational recommendations.

6.3.5 The Flemish education system

Since educational allocation is loosely organized in Flanders, the Flemish educational system provides an interesting setting to investigate school effects on social bias in educational recommendations. For track placement, the Flemish educational system relies heavily on teachers’ and parents’ judgement of pupils’ abilities (Boone & Van Houtte, 2013b). The process of educational allocation at the transition from primary to secondary education is characterized by few formal regulations. There are no centrally administered standardized tests and the judgement of teachers is communicated in the form of an informal advice that is not binding, the teacher recommendation. The way the allocation process is organized varies between schools and depends on the principal’s and staff’s views on allocation (e.g. in some schools educational
recommendations are collectively decided on during a multidisciplinary staff meeting, in others it is the sole responsibility of the sixth-grade teacher).

Pupils make the transition from primary to secondary education at age twelve, after completing the sixth grade of primary education. Secondary school normally lasts six years, and is divided in three grades that each encompass two years (see Figure 6 above). Theoretically, the first two years of secondary education are broad and comprehensive, to minimize the impact of this early choice on future educational trajectories. Students and their parents can choose between A- or B-stream. B-stream is meant for pupils who have been experiencing prior study difficulties, who are deemed less able for theoretically oriented education, or who did not obtain the certificate of primary education (Department of Education, 2008). Hence, the recommendation for B-stream is almost entirely determined by pupils’ prior study performance (Boone & Van Houtte, 2010). Pupils that enter B-stream mostly proceed to vocational education in the second grade of secondary education. The majority of pupils enters A-stream, which provides a comprehensive theoretical curriculum preparing for all future educational options. Nevertheless, within the first grade of A-stream, at least four optional courses are offered: Latin, modern sciences, technology and arts. Starting from the third year of secondary education, grades are organized in accordance with four educational tracks: academic, technical, arts and vocational education. At the end of first grade, pupils who finished A-stream, can choose between each of the four educational tracks. The optional courses available in first grade, however, are each seen as specifically preparing for one of the educational tracks starting from third grade. Latin and modern sciences are perceived to prepare for the more prestigious academic track, technology would prepare for technical education and arts for artistic education. This entails that, against official efforts to offer a comprehensive and broad A-stream in the first grade, it already comprises diverse educational opportunities that define future educational choices. This is also apparent in the fact that many schools offer only one or two educational tracks, leading to the existence of academic schools, technical/vocational schools and vocational schools (Van Houtte et al., 2012). Switching back and forth between every educational track is theoretically possible, but in practice pupils mostly ‘fall back’ from
academic to technical or vocational tracks (so called “cascade system”). General/academic education is regarded as the most prestigious and demanding track, while vocational education suffers a negative image (Stevens & Vermeersch, 2010). Technical and arts education occupy an intermediate position within this perceived hierarchy of educational tracks. Within the academic track, Latin is perceived as the most prestigious option, and acts as a reference point in pupils’ perception (Boone & Van Houtte, 2013a).

6.3.6 Method

6.3.6.1 Sample

Data were collected in May 2015, in a sample of 36 primary schools in Ghent and Antwerp, two cities in Flanders, the northern Dutch-speaking part of Belgium. The sample of schools was theoretically selected, based on school denomination and the percentage of low SES pupils. First, the population was divided in public and private schools within each city. It needs to be noted that all schools in Flanders are state-subsidized but that the majority of schools are private (not organized by the authorities) and Catholic. Then, we divided the schools per city and per denomination in three groups according to their percentage of low SES pupils, based on information of the Flemish Department of Education and Training (2015). Using these criteria, random samples of 36 schools were drawn (four in Ghent, five in Antwerp). We started contacting schools in the first sample and in case of refusal to participate in the research project, a corresponding school from the next sample was approached. We ultimately selected 18 schools of each denomination, of which 6 schools include the 33% lowest portion of low SES pupils, 6 schools represent the middle 33% and 6 schools encompass the 33% highest portion of low SES pupils. A written questionnaire was completed by 1049 sixth-grade pupils out of a total of 1086 pupils that were eligible to fill in our questionnaire (37 were absent at the time of survey-completion). We thus obtained a response rate of 95.6% for pupils. At the same time, we obtained data from 471 primary school teachers. However, due to missing values, the number of cases varies according to the model analysed (see Table 14 and Table 15). First of all, the analyses where carried
out on only 33 out of the original 36 schools, because teacher perceptions on study attitude and parental support where missing in 3 schools. Furthermore, in one of the 33 remaining schools, Raven tests were not distributed. Therefore, all models were tested on 32 schools, to increase comparability between the models. Since some cases had missing values on the individual variables, the number of cases varies between the models.

6.3.6.2 Variables

Dependent variable

Educational recommendation. Educational recommendation of the teacher was measured by asking teachers to indicate which educational option they would recommend for every individual student. For the current study, we chose to include only the recommendations within the A-stream, because past research suggests that the recommendation for B-stream is almost entirely dependent on school performance or prior study difficulties (Boone & Van Houtte, 2010). Within A-stream, teachers consider two binary choices when recommending an educational alternative at the transition from primary to secondary education. First, teachers can decide to recommend a general or academic option (1) (Latin and modern sciences (74.4%)) or a more practical option (0) (technology and arts (25.6%)) (see Table 12). Second, within the academic option, teachers can recommend Latin (35.3%) (1) or modern sciences (64.7%) (0).

School-level independent variables

Explicit attention to educational allocation. Whether or not a school explicitly paid attention to educational allocation, was measured based on teachers’ perceptions, since previous studies point to the importance of teachers’ perceptions of the school as learning context for their continuous school-based professional development (Coburn, 2001; Louws et al., 2017), by their answers to a standardized scale consisting of five items (see appendix A1). Teachers were asked to indicate how much they agreed (on a five-point Likert scale of totally disagree to totally agree) with items measuring the amount of opportunities the school provided to professionalize, to cooperate, and the extent to which the school provides a clear vision on educational allocation. The scale is
based on the instrument for measuring policy making capacity regarding evaluation and assessment, developed by Vanhoof, Deneire, and Van Petegem (2011). In our study, based on principle component analyses, we selected 5 items out of the original 9 items included in the questionnaire. Cronbach’s alpha for this scale is 0.828. The items were summed up, the observed minimum score is 14.18 and the observed maximum score is 20.71. The possible minimum score is 5 and the possible maximum score is 25. An ANOVA analysis shows that the mean value for the policy differs significantly between schools (F=2.772, p< .001). Aggregation of this variable is legitimated by an intra-class correlation (ICC) of 0.64 (Between Mean Square – Within Mean Square/Between Mean Square), which indicates that teachers’ ratings are shared by teachers of the same school (Glick, 1985; Shrout & Fleiss, 1979). The mean of these teacher ratings was computed to obtain a measure of the school’s explicit attention to educational allocation. The average score for school explicit attention to educational allocation was 16.96, with a standard deviation of 1.26. Note that the standard deviation signals a small variation for this variable. Moreover, the observed minimum (14.18) and maximum scores (20.71) show that most teachers perceive their school to pay explicit attention to educational allocation in a rather average to strong way.

**SES context.** We bear in mind that, according to Van Zanten’s (2005) review, a decisive factor in the matter of schools effectively equalizing inequalities is the school composition in terms of students’ social background. Therefore, this study takes into account school socio-economic composition. This was operationalized as the mean of pupils’ ISEI-score per school (see individual-level independent variables). The lowest mean in our schools was 24.10, and the highest was 68.73. The mean SES composition was 51.27 with a standard deviation of 11.69.

**Individual-level independent variables**

**SES.** Socio-economic status was based on the current occupation of both parents. In case of unemployment, previous occupation was used. These parental occupations were recoded according to the International Socio-economic Index of Occupational Status (ISEI) (Ganzeboom et al., 1992). Scores range from 11.74 to 88.96. To obtain a measure
for family SES, the highest of both parents was used. The mean SES score was 51.82 with a standard deviation of 23.38.

**Ability.** A standardized Raven test was used to measure pupils’ capacity for abstract reasoning. This test consists of 60 items and each correct answer is awarded one point, so that theoretically pupils could score from 0 to 60. The average score for our sample was 42.06, with a standard deviation of 6.50, a minimum score of 13, and a maximum of 55.

**Gender.** There are 48.7% girls (coded 1) and 51.3% boys (coded 0) in our sample.

**Study attitude.** Teachers were not only asked to indicate which educational option they would recommend to their students, they were also asked to rate every student on a number of characteristics with a score ranging from one to five. Teacher judgements of pupils’ study attitude was measured by a sum of the score on the following four aspects: punctuality, participation in class, planning, and self-reliance. These four aspects where chosen based on previous Flemish research (Boone & Van Houtte, 2013b) and principle component analyses showed that they underlie one and the same factor. The minimum score teachers gave on the study attitude of their pupils was 4, and the maximum 20. The average score on study attitude according to the teacher was 15.10 with a standard deviation of 3.61. Bivariate ANOVA analyses showed that teachers’ ratings of pupils’ study attitude are positively related to pupils’ SES (Pearson correlation= 0.234, p≤ 0.01).

**Parental support.** Likewise, teachers were asked to indicate their perception of parental support for every pupil, with a score from one to five. A score of one implied very weak parental support (7.1%), two indicated weak parental support (11.1%), three meant average parental support (19.3%), four stood for strong parental support (33.3%) and five pointed to very strong parental support (29.3%). Bivariate ANOVA analyses showed that on average, pupils who received a score of strong to very strong, had a higher SES than pupils who received a score of very weak to weak (F= 41.443, p≤ 0.001).
Table 12 Descriptive characteristics: variables under consideration in study 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean or percentage</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-stream <em>(N=996)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Academic (1)</td>
<td>74.4%</td>
<td></td>
</tr>
<tr>
<td>A Practical (0)</td>
<td>25.6%</td>
<td></td>
</tr>
<tr>
<td><strong>A-stream academic (N=694)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin (1)</td>
<td>35.3%</td>
<td></td>
</tr>
<tr>
<td>Modern sciences (0)</td>
<td>64.7%</td>
<td></td>
</tr>
<tr>
<td><strong>School-level variables (N=1013)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School’s attention to educational allocation</td>
<td>16.96</td>
<td>1.26</td>
</tr>
<tr>
<td>SES context</td>
<td>51.27</td>
<td>11.69</td>
</tr>
<tr>
<td><strong>Individual-level variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES <em>(N=949)</em></td>
<td>51.82</td>
<td>23.38</td>
</tr>
<tr>
<td>Ability</td>
<td>42.06</td>
<td>6.50</td>
</tr>
<tr>
<td><strong>Gender (N=956)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls (1)</td>
<td>48.7%</td>
<td></td>
</tr>
<tr>
<td>Boys (0)</td>
<td>51.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Study attitude (N=975)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.10</td>
<td>3.61</td>
<td></td>
</tr>
<tr>
<td><strong>Parental support (N=983)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very weak</td>
<td>7.1%</td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>11.1%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>19.3%</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>33.3%</td>
<td></td>
</tr>
<tr>
<td>Very strong</td>
<td>29.2%</td>
<td></td>
</tr>
</tbody>
</table>

### 6.3.6.3 Design

Because we are dealing with variables at the school level and at the individual level, multilevel analyses were most appropriate. Moreover, since the outcome variable was dichotomous, we performed a two-level binary logistic analysis (using the MLwiN program, version 2.26). The Iterative Generalised Least Squares method was applied and
the algorithm converged, using second order Penalized Quasi Likelihood approximations (PQL). These are considered more accurate than first order MQL approximations (Hox, 2010; Kreeft & De Leeuw, 1988; Rodriguez & Goldman, 2001). We investigated the determinants of the two binary choices for recommendations within A-stream in two separate models. First, we analysed the recommendation within A-stream between a general or academic option (Latin or modern sciences) and a more practical option (technology or arts) (see Table 13). Next, we investigated the recommendation for Latin and modern sciences within the academic option of A-stream (see Table 14). An estimation of unconditional models to divide the outcome variance into a within-school and between-school component is commonly the start of a multilevel analysis. Although some say this is not appropriate for hierarchical logistic models - because the outcome is dichotomous – it can give an idea of the importance of considering school-level variables (Frost, 2007; Lee & Burkam, 2003). The first model of the multilevel analyses investigates the effect of the school’s explicit attention to educational allocation on teacher recommendations in general. This relationship will be controlled for the SES context of the school because previous research suggests this can influence teacher recommendations through differing teacher expectations (Rumberger & Palardy, 2005) and because bivariate analysis showed that at schools with a high SES context, more explicit attention is paid to educational allocation (Pearson correlation= 0.355; p≤ 0.01). A second model depicts the social bias in educational recommendations by looking at the impact of individual pupil characteristics of SES, controlled for ability and gender. A third model examines whether the relationship between SES and educational recommendation varies according to a school’s explicit attention to educational allocation, by means of a cross-level interaction. A fourth model tests the dominant explanations for social bias in teacher recommendations, namely the consideration of pupils’ study attitude and parental support, and investigates whether the effect of a school’s explicit attention to educational allocation and the interaction effect with pupils’ SES remains the same when controlling for teachers’ perceptions of these non-cognitive pupil characteristics. Every metric independent variable was grand mean centred, since this enhances the stability of the models and facilitates substantive
interpretation of the effects, especially for cross-level interactions (Hox, 2010; Kreeft & De Leeuw, 1988).

6.3.7 Results

The unconditional model for the recommendation for a theoretical or practical option within A-stream, showed a between school variance of 0.515 with a standard error of 0.191. The first model investigates the influence of a school’s explicit attention to educational allocation on teacher recommendations. This model showed that a school’s explicit attention to educational allocation does not influence teacher recommendations (see Table 13, model 1). The SES context of the school exerts a positive effect on the probability to receive a recommendation for an academic option, but the second model shows that this effect is explained by pupils’ individual SES background (and is in fact a selection-effect). Furthermore, the second model confirmed the social bias in educational recommendation based on a pupil’s SES (see Table 13, model 2). Irrespective of ability, a pupil from a high SES background, has a higher probability to receive the advice to enrol in an academic option in secondary education (OR= 1.026, p≤ 0.001). For pupils with a high SES (based on the 75th percentile), the probability of getting the advice to enrol in an academic option was 65%, while this probability was 35% for pupils with a low SES (based on the 25th percentile), irrespective of their ability. A high score on ability is positively related to choosing an academic track (OR= 1.126, p≤ 0.001). Furthermore, the first model showed a significant gender effect in educational recommendation: girls are more likely than boys to get the advice to enrol in the academic courses of secondary education (OR= 1.627, p≤ 0.01). The difference in probability to get the advice to enrol in an academic option between girls and boys is 12 percentage points.

Although the effect size is very small and the effect is only marginally significant, the third model displayed an effect of the cross-level interaction between pupils’ SES and a school’s explicit attention to educational allocation (see Table 13, model 3) (OR= 1.007, p= 0.05). The positive effect of SES on the probability of getting the advice to enrol in an academic option, is stronger in schools where explicit attention is paid to educational
allocation (see Figure 10). A pupil from a low SES background has a higher probability to receive the advice for an academic option at schools with no explicit attention to educational allocation, compared to a pupil from a low SES background at schools where explicit attention is paid to educational allocation. At schools with an explicit attention to educational allocation, students with a high SES background have a higher probability to get the advice to enrol in an academic option, compared to students with high SES backgrounds in schools where no explicit attention is paid to educational allocation. The interaction effect can also be interpreted in the other direction. This would indicate that the difference in educational recommendation between low and high SES students is larger at schools where explicit attention is paid to educational allocation than at schools where no explicit attention is paid to educational allocation.

In the fourth model, we controlled for the influence of the teacher’s assessment of pupil’s study attitude and parental support (see Table 13, model 4). The results showed that a positive assessment of a pupil’s study attitude increased the odds of getting the advice to enrol in an academic option in secondary education (OR= 1.564, p ≤ 0.001). For pupils with a high score on study attitude (based on the 75th percentile), the probability of getting the advice to enrol in an academic option is 78%, while this probability is 28% for pupils with a low score on study attitude (based on the 25th percentile). Furthermore, model four indicates that teachers’ perceptions of very weak parental support exerts a negative effect on the probability to receive the advice to enrol in an academic option, as compared to teachers’ perception of strong parental support (OR= 0.267, p ≤ 0.01). Controlling for these teacher perceptions, the cross-level interaction between pupil’s SES and the school’s explicit attention to educational allocation, lost significance. Moreover, the gender effect seemed to be explained by the teacher perception of pupils’ study attitude, since gender no longer exerted a significant effect on teacher recommendations when we controlled for this variable. However, the relationship between pupil’s SES and teacher recommendation remained, even when controlling for these teacher judgements.
### Table 13 Results study 3: Academic (1) or Practical recommendation (0)

<table>
<thead>
<tr>
<th></th>
<th>Model 1: School variables</th>
<th>Model 2: Individual variables</th>
<th>Model 3: Cross-level interaction</th>
<th>Model 4: Teacher perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>( \gamma )</td>
<td>1.143 (0.135)***</td>
<td>1.126 (0.194)***</td>
<td>1.100 (0.194)***</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>3.136</td>
<td>3.083</td>
<td>3.004</td>
</tr>
<tr>
<td>School’s attention to educational allocation</td>
<td>( \gamma )</td>
<td>0.060 (0.104)</td>
<td>0.081 (0.133)</td>
<td>0.157 (0.143)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.062</td>
<td>1.084</td>
<td>1.170</td>
</tr>
<tr>
<td>SES context</td>
<td>( \gamma )</td>
<td>0.035 (0.013)**</td>
<td>-0.002 (0.017)</td>
<td>0.000 (0.017)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.036</td>
<td>0.998</td>
<td>1.000</td>
</tr>
<tr>
<td>SES</td>
<td>( \gamma )</td>
<td>0.026 (0.005)***</td>
<td>0.027 (0.005)***</td>
<td>0.020 (0.006)*****</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.026</td>
<td>1.027</td>
<td>1.020</td>
</tr>
<tr>
<td>Ability</td>
<td>( \gamma )</td>
<td>0.119 (0.016)***</td>
<td>0.115 (0.016)***</td>
<td>0.120 (0.019)***</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.126</td>
<td>1.122</td>
<td>1.127</td>
</tr>
<tr>
<td>Gender – girl (1)</td>
<td>( \gamma )</td>
<td>0.487 (0.189)**</td>
<td>0.503 (0.189)**</td>
<td>-0.236 (0.237)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.627</td>
<td>1.654</td>
<td>0.790</td>
</tr>
<tr>
<td>SES * School’s attention to educational allocation</td>
<td>( \gamma )</td>
<td></td>
<td>0.007 (0.004)*</td>
<td>0.005 (0.004)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.007</td>
<td>1.005</td>
<td>1.005</td>
</tr>
<tr>
<td>Study attitude</td>
<td>( \gamma )</td>
<td></td>
<td>0.447 (0.047)***</td>
<td></td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.564</td>
<td>1.564</td>
<td>1.564</td>
</tr>
<tr>
<td>Parental support</td>
<td>Very weak</td>
<td>( \gamma )</td>
<td>-1.321 (0.502)****</td>
<td>-1.321 (0.502)****</td>
</tr>
<tr>
<td>strong (ref.cat.)</td>
<td><strong>Odds ratio</strong></td>
<td>0.267</td>
<td>0.267</td>
<td>0.267</td>
</tr>
<tr>
<td>Weak</td>
<td>( \gamma )</td>
<td></td>
<td>0.233 (0.388)</td>
<td>0.233 (0.388)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.262</td>
<td>1.262</td>
<td>1.262</td>
</tr>
<tr>
<td>Average</td>
<td>( \gamma )</td>
<td></td>
<td>0.128 (0.311)</td>
<td>0.128 (0.311)</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>1.137</td>
<td>1.137</td>
<td>1.137</td>
</tr>
<tr>
<td>Very strong</td>
<td>( \gamma )</td>
<td></td>
<td>-0.195 (0.318)*</td>
<td>-0.195 (0.318)*</td>
</tr>
<tr>
<td><strong>Odds ratio</strong></td>
<td></td>
<td>0.823</td>
<td>0.823</td>
<td>0.823</td>
</tr>
<tr>
<td>Between school variance</td>
<td></td>
<td>0.319 (0.141)</td>
<td>0.612 (0.235)</td>
<td>0.608 (0.235)</td>
</tr>
<tr>
<td>Number of pupils</td>
<td></td>
<td>883</td>
<td>815</td>
<td>815</td>
</tr>
<tr>
<td>Number of schools</td>
<td></td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

*Note: Presented are the gamma coefficients (\( \gamma \)) with standard errors between brackets, and odds ratios. \( *p \leq .10 \) \( *p \leq .05 \), \( **p \leq .01 \), \( ***p \leq .001 \)
Figure 10: The interaction between SES and attention to educational allocation

![Graph showing the interaction between SES and attention to educational allocation.]

Note: The green line presents probabilities in schools situated at the lowest quartile of the variable ‘explicit attention to educational allocation’ (16.35), the purple line plots probabilities in schools situated at the highest quartile of the variable ‘explicit attention to educational allocation’ (17.8).

For the educational recommendation for Latin or modern sciences within the academic option of A-stream, the school-level variance was 0.138, with a standard deviation of 0.090. The first model showed no significant effect of a school’s explicit attention to educational allocation on the recommendation for Latin or modern sciences (see Table 14, model 1). Again, the SES context of the school exerts a positive effect on the probability to receive a recommendation for Latin, but in the second model this effect is no longer significant when controlling for pupils’ individual SES background. Furthermore, the second model indicated that the social bias in teacher recommendations also counts for the recommendation for Latin or modern sciences (see Table 14, model 2). Pupils with a high SES background are more likely to get the
advice for Latin rather than modern sciences, compared to pupils with a lower SES background (OR= 1.020, p≤ 0.001). For pupils with a high SES (based on the 75th percentile), the probability of getting the advice to enrol in Latin was 61%, while this probability was 39% for pupils with a low SES (based on the 25th percentile), irrespective of ability. The higher a pupil’s ability, the greater the probability to receive the advice for Latin (OR= 1.123, p≤ 0.001). The difference in probability to get the advice to enrol in Latin between pupils with a high and a low ability score was 26 percentage points.

The third model displayed no significant interaction-effect between SES and a school’s explicit attention to educational allocation (see Table 14, model 3). The fourth model indicated a significant effect of teacher assessments of study attitude on the recommendation to enrol in Latin (see Table 14, model 4) (OR = 1.597, p ≤ 0.001). For pupils with a high score on study attitude (based on the 75th percentile), the probability of getting the advice to enrol in Latin was 80%, while this probability was 27% for pupils with a low score on study attitude (based on the 25th percentile). Upon controlling for the study attitude of pupils according to the teacher, the gender effect turned significant, with boys having a higher probability to receive the advice for Latin than girls (OR = 0.644, p ≤ 0.05). The difference in probability to get the advice to enrol in an academic option between girls and boys is 11 percentage points. This effect was suppressed by the effect of study attitude, which teachers assessed higher for girls (16.15) than for boys (14.31) (F = 23.65, p ≤ 0.001). So, in case of equal perceived study attitudes, boys were more likely than girls to get the advice to enrol in Latin, but this did not show because girls are perceived to have a better study attitude than boys. This is at first sight a remarkable difference with the recommendation for an academic or a practical option – where girls were more likely to receive the advice for an academic option, which includes Latin or modern sciences. However, a closer look elucidates that, would the effect of gender remain significant in the last model of these analyses (see model 4, Table 13), it would also be negative upon controlling for pupils’ study attitude.
Table 14 Results study 3: Recommendation for Latin (1) or modern sciences (0)

<table>
<thead>
<tr>
<th></th>
<th>Model 1: School variables</th>
<th>Model 2: Individual variables</th>
<th>Model 3: Cross-level interaction</th>
<th>Model 4: Teacher perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>γ</td>
<td>-0.658 (0.087)**</td>
<td>-0.945 (0.151)**</td>
<td>-0.967 (0.154)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.518</td>
<td>0.389</td>
<td>0.380</td>
</tr>
<tr>
<td>School’s attention to educational allocation</td>
<td>γ</td>
<td>0.043 (0.073)</td>
<td>0.035 (0.088)</td>
<td>0.013 (0.092)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.044</td>
<td>1.036</td>
<td>1.013</td>
</tr>
<tr>
<td>SES context</td>
<td>γ</td>
<td>0.033 (0.009)**</td>
<td>0.009 (0.012)</td>
<td>0.010 (0.012)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.034</td>
<td>1.009</td>
<td>1.010</td>
</tr>
<tr>
<td>SES</td>
<td>γ</td>
<td>0.020 (0.005)**</td>
<td>0.020 (0.005)**</td>
<td>0.021 (0.006)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.020</td>
<td>1.020</td>
<td>1.021</td>
</tr>
<tr>
<td>Ability</td>
<td>γ</td>
<td>0.116 (0.018)**</td>
<td>0.115 (0.018)**</td>
<td>0.101 (0.021)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>1.123</td>
<td>1.122</td>
<td>1.106</td>
</tr>
<tr>
<td>Gender – girl (1)</td>
<td>γ</td>
<td>-0.024 (0.183)</td>
<td>-0.020 (0.184)</td>
<td>-0.440 (0.216)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td>0.976</td>
<td>0.980</td>
<td>0.644</td>
</tr>
<tr>
<td>SES * School’s attention to educational allocation</td>
<td>γ</td>
<td></td>
<td>0.003 (0.004)</td>
<td>0.002 (0.004)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td>1.003</td>
<td>1.002</td>
</tr>
<tr>
<td>Study attitude</td>
<td>γ</td>
<td></td>
<td></td>
<td>0.468 (0.054)**</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
<td>1.597</td>
</tr>
<tr>
<td>Parental support</td>
<td>Very weak</td>
<td>γ</td>
<td></td>
<td>-0.013 (0.945)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
<td>0.987</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>γ</td>
<td></td>
<td>-0.154 (0.515)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
<td>0.857</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>γ</td>
<td></td>
<td>0.067 (0.332)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
<td>1.069</td>
</tr>
<tr>
<td></td>
<td>Very strong</td>
<td>γ</td>
<td></td>
<td>-0.134 (0.250)</td>
</tr>
<tr>
<td></td>
<td>Odds ratio</td>
<td></td>
<td></td>
<td>0.875</td>
</tr>
<tr>
<td>Between school variance</td>
<td></td>
<td>0.000 (0.000)</td>
<td>0.044 (0.070)</td>
<td>0.043 (0.070)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.137 (0.118)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of pupils</td>
<td></td>
<td>659</td>
<td>614</td>
<td>614</td>
</tr>
<tr>
<td></td>
<td></td>
<td>588</td>
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<td></td>
</tr>
<tr>
<td>Number of schools</td>
<td></td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

Note: Presented are the gamma coefficients (γ) with standard errors between brackets, and odds ratios. *p ≤ .10 *p ≤ .05, **p ≤ .01, ***p ≤ .001
Returning to the educational recommend for Latin or modern sciences, the last model further showed that the teachers’ assessment of parental support was not significant for this recommendation (See Table 14, model 4). This result again differs from the previous results, where teachers’ perceptions of parental support exerted a significantly positive effect on the probability to receive the advice for an academic option. This differing result needs to be seen in light of the perceived hierarchical structure of secondary education, where the choice between Latin and modern sciences is the least discriminating choice, for it is already situated within the academic option of A-stream. Finally, the last model shows that the SES context of the school again gains significance, when controlling for teachers’ perceptions of pupils’ parental support. At schools where pupils are on average of high SES background, pupils are more likely to receive the recommendation for Latin than at schools with a low SES context (OR= 1.030, p≤ 0.05), but this effect was suppressed by teacher perceptions of pupils’ parental support. In case of equal perceived parental support, pupils have a higher probability to get the advice to enrol in Latin at schools with a high SES context, but this effect did not show, because pupils who are deemed to receive strong parental support are more likely to attend a school with a higher SES context (mean= 53.35), than pupils of whom teachers perceive they receive very weak parental support (mean= 46.41).

6.3.8 Discussion

Research on the role of the teacher in educational allocation has ignored the school context in which the teacher operates. Moreover, studies on biased teacher recommendations have failed to thoroughly investigate the role of teacher perceptions of their students for the biased nature of educational recommendations. Especially in the Flemish educational context, where schools and teachers enjoy a lot of autonomy in organizing educational allocation, the extent to which the school enables professional development of teachers in the process of track placement can be of particular importance for social bias in teacher recommendations. Therefore, this study set out to investigate the role of teachers’ perceptions of the school’s explicit attention to educational allocation, in terms of providing opportunities to professionalize and cooperate on this matter, in the relationship between pupils’ SES and the teacher
Empirical studies

recommendation at the transition from primary to secondary education in Flanders. This was done using multilevel analyses on large-scale quantitative data that include strong operationalization of teacher perceptions and recommendations.

Results show that a school’s explicit attention to educational allocation does not influence teacher recommendations in general. However, a significant interaction effect – albeit small and only marginally significant – showed that the positive effect of SES on the teacher recommendation for the academic options, is stronger at schools where explicit attention is paid educational allocation. The gap in educational recommendations between high and low SES pupils, is larger at schools where explicit attention is paid to educational allocation. Thus, explicit attention paid to educational allocation does not seem to result in equalizing inequalities in educational recommendation, but rather in maintaining the existing selection-effects.

Clarifying the mechanisms of educational inequality has been an important goal in educational research and policy. Social bias in teacher recommendations has been demonstrated by previous research but explanations have mostly centred on the individual level (Boone & Van Houtte, 2013b; Schneider, 2011). This social bias is thereby explained by the fact that teachers take into consideration not only student performance but also non-cognitive student characteristics that are related to social class (Bonizzoni et al., 2016). Previous research has demonstrated that teachers take into account perceived parental support with homework and parental involvement at school (Barg, 2012; Ditton et al., 2005; Duru-Bellat, 2002) and pupils’ study attitude (Boone & Van Houtte, 2013b). Our analyses confirm the class related character of these aspects, but indicate that explaining the social bias in teacher recommendations based on these non-cognitive characteristics would be insufficient. In this respect, our study confirms the results of a previous study of Timmermans and colleagues (Timmermans et al.), who showed that teacher perceptions of pupils’ work habits account for gender differences, but not for socio-economic differences, in teacher recommendations. Teacher perceptions of pupils’ study attitude are closely related to gender differences in educational recommendations for both the academic or practical option and for Latin or modern sciences within the academic options.
These results implicate that, in case teachers would perceive of study attitudes and parental support similarly for pupils of all social backgrounds, the effect of pupils’ social background on educational recommendations still remains. Future research would thus benefit from directing attention to other mechanisms that could explain the remaining effect of social class on teacher recommendations. In this respect, more subtle and less tangible aspects of the class based habitus and cultural capital could be of importance. For example, Rosenbaum (1986) suggests that teachers select their pupils through an informal theory on how prior educational trajectories or accomplishments in school – being less favourable for ethnic minority students – signal inferior ability. Moreover, since studies have shown that low teacher expectations are more common for low SES (Auwarter & Aruguete, 2008) and ethnic minority students (Tenenbaum & Ruck, 2007), and the teacher recommendation can be seen as based on teachers’ expectations for pupils’ future performance, teacher expectations might also be an important explanatory mechanism for social bias in educational recommendations.

In coming to these findings, the study was subject to some limitations. First of all, since our sample includes only data from Ghent and Antwerp, the findings cannot reliably be generalized to the entire Flemish population, but provide a good picture of educational allocation in urban areas with a high degree of socio-economic and ethnic diversity. Furthermore, our study operationalized pupils’ ability by means of a Raventest. Different results might be obtained when controlling for pupils’ school results, and the bias in these school results (i.e. the primary effect of social class), might be higher than the primary effect portrayed in the Raventest. It is possible that the bias in school achievement tests would diminish the secondary effect, and that the remaining social bias in teacher recommendations might be more accurately explained by teachers’ perceptions of pupils’ study attitude and parental support. However, because there are no standardized tests for all schools at the transition from primary to secondary education in Flanders, this study was limited to the use of a Raventest, a standardized measure of ability, comparable between pupils and schools. It should also be noted that, for our central concept of a school’s explicit attention to educational allocation, every teacher in the school (not only the sixth-grade teachers) where asked to assess their
school in terms of attention to educational allocation. This was done to obtain a school feature, and because we assume teachers other than the sixth-grade teacher are also aware of the school’s attention to educational allocation. Nevertheless, the authors think this might explain the small variation in this variable. In addition, since all items of the scale were formulated in a positive tense, we cannot rule out the possibility of acquiescence response bias (Schriesheim & Hill, 1981) having occurred in teachers’ answers to this specific scale. This would lead us to hypothesize that most teachers do not have a strong opinion on the extent to which their school is involved in developing a clear policy on pupils’ educational allocation and in supporting teachers in formulating their educational recommendations.

In addition, it is important to note that in this study, whether or not a school pays explicit attention to educational allocation is operationalized by means of teachers’ perceptions of the school as providing opportunities to professionalize on allocation decisions. This is in line with literature pointing to the importance of teachers’ perceptions of workplace conditions (Coburn, 2001; Louws et al., 2017). Nevertheless, as perceptions are also bound to past experiences (as is also argued in Van Houtte, 2005) – it is possible that teachers who are more inclined to see pupils’ study attitude and parental support as important sources of information for an educational recommendation, are more prone to perceive of their school as paying sufficient attention to educational allocation (based on their own perspective). Previous studies on the sense-making process within which teachers make sense of the school’s organizational goals, suggest that research should direct more attention to the way in which teachers reinterpret and reinvent policies in their daily practice (Coburn, 2001; Imants et al., 2013). Future studies in this field would benefit from mixed-method investigations for a full coverage of a school’s policy on educational inequality - of which explicit attention to educational allocation can be seen as one part - and the role of teachers as mediators of this policy (Brain et al., 2006).

Additional analyses (not shown) imply that, at schools where no explicit attention is paid to educational allocation, teachers more often indicate the cognitive aspects of mathematics and language performance as the most important aspect in giving an educational recommendation, compared to teachers in schools where explicit attention
is paid to educational allocation. Hence, professionalization on track placement within schools possibly entails a stressing of non-cognitive pupil features, over and above student performance, in line with a multi-dimensional assessment of pupils (Birenbaum et al., 2006). However, the results cast some doubt on the consciousness among teachers and schools about the class-related character of these features. The results of this study further suggest that topic of educational allocation is framed by schools and teachers in terms of a meritocratic or human capital theory perspective, where teachers acts as gatekeepers in educational transition moments (Oakes & Guiton, 1995). Because pupil characteristics such as study attitude and parental support are in fact susceptible to change or learning, this study implicates that concrete measurements to support lower SES students in their educational trajectories, thereby compensating for lesser resources due to their home background, should be made. For example, offering homework support from school, or lessons focusing on non-cognitive skills such as planning or developing a good study attitude, could lower the role of subtle inequality mechanisms in teacher recommendations. This way, this study showed that teachers and schools play a vital role in the process of reproducing or compensating for inequality.
6.4 The dynamics of interaction between teachers and parents in educational decision-making\textsuperscript{5}

6.4.1 Abstract

The teacher recommendation can be seen as important information for parents in the process of educational decision-making at the transition from primary to secondary education. This article examines the parent-teacher interaction in which the actual communication of the educational recommendation takes place. An exploratory mixed-method design is used to gain insight into 1) the dynamics in parent-teacher interactions on educational recommendation and how this relates to parents’ experience of educational decision-making and 2) parent and teacher characteristics determining parents’ perception of receiving an educational recommendation. Qualitative data of observations and in-depth interviews during the period of 2015-2016 are supplemented with large-scale quantitative data, gathered in May 2016 in Flanders. Results show that belated timing, differing opinions and implicit formulations obstruct the potential aid of the teacher recommendation in the decision-making process of parents. However, the probability for the teacher recommendation to be explicitly recognized by parents, can be enhanced by investing in a good home-school relationship and in the teacher’s sense of efficacy in formulating educational recommendations. Suggestions for educational policy and practice are discussed.

Keywords: Educational recommendation, home-school relationship, teacher efficacy, primary school, mixed-method research

6.4.2 Introduction

Inequality in educational choice has been repeatedly investigated, concluding that, at educational transition moments, self-selection occurs (Flanders: Boone & Van Houtte,\textsuperscript{5})

\textsuperscript{5} This chapter is currently under review for publication in Journal of Educational Policy as Thys, S, Seghers, M., Van Houtte, M. & Van Avermaet, P. (2017). A parent-teacher perspective on communicating and receiving educational recommendations. Suggestions for practice and policy in choice-driven systems.
2013a; Germany: Ditton & Krüsken, 2006; France: Duru-Bellat, 2002; England & Sweden: Jackson et al., 2012; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009). This educational inequality is greatest in education systems with early tracking (Brint, 2006). In the Flemish educational system, for instance, tracking starts at the transition from primary to secondary education, when pupils are at age 12. In line with the emphasis on choice in most European education systems, a great deal of the responsibility for this decision-making process lies within the family (Jacob & Tieben, 2009). According to rational choice theory, this decision-making process is determined by a cost-benefit calculation, in which reliable and relevant information is a prerequisite (Boudon, 1974; Jackson & Jonsson, 2013). However, we know that this information is not equally accessible for every parent, since strategies used to gather information during educational decision-making depend on parents’ social and cultural capital and are therefore class related (Ball, 2003; Gewirtz et al., 1995b; Van Zanten, 2005).

Furthermore, as parents of higher social classes feel more confident and entitled in interacting with the school staff, class based differences exist in how parents interact with educational professionals in general (Lareau & Weininger, 2003; Reay, 2004) and with regard to ability grouping, and preferable treatment in track placement in specific (Barg, 2015; Elbers & de Haan, 2014; Horvat et al., 2003). These processes are further complicated by the intersectionality of class and race (Lareau & Horvat, 1999; Vincent, Rollock, Ball, & Gillborn, 2012). In most European education systems (e.g. Flanders, France, Germany, the Netherlands) track placement is guided by the primary school teacher’s recommendation for an educational option, either binding or not. This teacher recommendation can be seen as an important information aspect for parents in choosing a suitable educational option for their child (Bonizzoni et al., 2016), especially for parents with a lower socio-economic and/or migrant background. For example, results of a study by Ambler (1994) point to the importance of information for less-educated parents to be able to participate in the education market.

In Flanders, teacher’s orientation advice is given to parents in the form of a non-binding teacher recommendation, usually communicated and discussed during a formal teacher-parent conference. Most studies investigating teacher recommendations focus
on the extent to which these are biased by pupils’ socio-economic background (Boone & Van Houtte, 2013b; Schneider, 2011). However, few studies consider the parent-teacher interaction in which the actual communication of the teacher recommendation takes place. Involvement of parents in parent-teacher conferences concerning track placement can be seen as a specific part of parent-teacher communication. Although there is a growing consensus that inequality in educational choice is related to both self-selection mechanisms within the family and selection through track placement by the school, studies that investigate the interplay between parents’ decision-making and teachers’ approaches and beliefs for involving parents in the educational decision-making process are scarce.

In sum, the teacher recommendation can be seen as an important source of information in educational decision-making. However, we know that the teacher recommendation typically concerns a parent-teacher interaction, while parents of lower social classes are less confident in interacting with the school staff (Horvat et al., 2003; Lareau & Weininger, 2003; Reay, 2004). Moreover, in Flanders, allocation at the transition from primary to secondary education is loosely organized since there are no standardized tests, teacher recommendations are not binding and there are no official guidelines on how to formulate an educational recommendation (Boone & Van Houtte, 2013b). This means that, despite the abundant research on biased track recommendations, in a context of free school and track choice, in which parents are ultimately responsible for education decisions and schools are free to organize their guiding practice as they see fit, getting an educational recommendation is not guaranteed. Although miscommunication in parent-teacher conferences has been reported (Howard & Lipinoga, 2010), studies gaining insight parents’ understanding of having received an educational recommendation are – to the best of our knowledge – almost absent.

Therefore, this study has a twofold aim for which a mixed-method design was adopted. First a qualitatively exploration of the dynamics in the parent-teacher interaction are used to gain more insight into how teachers engage with parents in communicating their educational recommendation and whether and how this related to parents’ decision-making. Second, quantitative data are analysed to identify both teacher and parent
characteristics related to parents’ perception of having received an educational recommendation from the teacher.

6.4.3 Theoretical background

6.4.3.1 Home-school interactions in educational decision-making

It is argued that an important mechanism in the intergenerational transmission of educational advantage is the involvement of highly educated parents in the track placement of their children (Useem, 1992). Furthermore, several studies have suggested the importance of parents’ cultural and social capital for differential decision-making, albeit with a focus on school choice (Gewirtz et al., 1995b; Reay & Ball, 1998; Van Zanten, 2009). Middle class parents possess more knowledge and skills necessary to decode school systems, facilitating educational decision-making at transition moments (Gewirtz et al., 1995b). Or, as Reay (2004, p. 82) puts it, ‘middle-class’ cultural capital is ‘not just a disposition to choose but also the ability to get the choices one wants’. Moreover, the social network of middle class parents allows them to gain more crucial information at important transition moments (Ball & Vincent, 1998; Devine, 2008; Reinoso, 2008). These cultural and social resources result in middle-class parents feeling more confident in family-school interactions (Lareau, 2001; Lareau & Weininger, 2003; Reay, 1999), allowing them to receive preferable treatment of their child (Horvat et al., 2003; Lareau & Weininger, 2003; Reay, 2004) and to influence teachers’ track propositions (Barg, 2015). Since lower class parents are less familiar with the educational system and lack the social network and skills to get the information they need (Ball, 2003), we can assume they depend more on the information given by the primary school. However, a previous Flemish study showed that working class parents experience more constraints in asking the teacher for information regarding educational decision-making (Seghers et al., 2015). This is in line with the work of Lareau (2001), who demonstrated the class related character of home-school relationships, because of the congruence between cultural practices of the school and the middle-class family, facilitating parent-teacher interactions. Race and migrant background further complicates this dynamic (Lareau & Horvat, 1999) and stresses the need to challenge a “one-size-fits-all” approach in home-
school relationships (Crozier & Davies, 2007). Regarding the educational recommendation, a study of Bonizzoni and colleagues (2016), shows how parental involvement in the allocation process presses teachers to adjust their recommendation to parents’ aspirations. However, this negotiating of the educational recommendation was easier for native, middle class parents than for immigrant parents, lacking linguistic skills or knowledge of the educational system. Thus, the extent to which the teacher and the primary school facilitate parents’ educational decision-making is different according to parental social class and migration background. Furthermore, studies suggest that the type of recommendation offered by the primary school can be a source of conflict or debate (Barg, 2015; Elbers & de Haan, 2014), thus pointing to a relation between parents’ involvement in track placement and the type of recommendation the teacher would give. In conclusion, research clearly reports on diverging ranges of parents’ influence on track placement. Thus, especially in the Flemish context where allocation is loosely organized, and in the absence of a school-specific guidance policy towards parents, the mere fact of getting an educational recommendation is not equally evident for every parent.

6.4.3.2 The role of the primary school (teacher)

Receptive and supportive attitudes on behalf of the teachers foster the home-school relationship, especially for low SES parents (Deslandes & Bertrand, 2005; Domina, 2005). Studies consistently point to contextual motivators for parents’ involvement in school affairs, with invitations from the teacher and the school as strongest predictors (Hoover-Dempsey et al., 2005; Reynolds et al., 2015). Teacher beliefs of the importance of parental involvement and of their competence in inviting parents, are systematically included in models of parental involvement (Hoover-Dempsey et al., 2002). The importance of the latter, teachers’ self-perceived competence in communicating with parents, is reflected by results of in-service training programs (Hoover-Dempsey et al., 2002; Symeou et al., 2012). Results about the efficiency of these programs point to the importance of teachers’ sense of self-efficacy for their invitations to parents. Already in 1987, Hoover-Dempsey and colleagues (1987) mention the role of teacher efficacy for home-school relationships. However, these studies either include a measure of
teachers’ sense of self-efficacy on teaching in general (Hoover-Dempsey et al., 1987; Hoover-Dempsey et al., 2002), or report on teachers’ appraisal of very specific communication skills (e.g. paraphrasing) (Symeou et al., 2012). However, the impact of teachers’ sense of self-efficacy in the formulation and communication of an educational recommendation has not been taken into account thus far.

Nevertheless, since self-efficacy beliefs vary across different domains and even across different facets within the same domain, self-efficacy measures should include domain specifications. Bandura (Bandura, 2012, p. 15) recently argued that ‘all too often, this belief system is treated as though it is a generalized trait’. Self-efficacy is defined by Bandura (Bandura, 2006, p. 307) as ‘people’s beliefs in their capabilities to produce given attainments’. According to Bandura’s conceptualization of perceived self-efficacy, a high sense of self-efficacy is related to setting higher goal challenges with firmer commitment, higher motivation for these goals and greater effort and perseverance (Bandura, 1993). Effects of teacher efficacy have been studied extensively, pointing to its positive effects for teaching performance and student achievement (e.g. Caprara, Barbaranelli, Steca, & Malone, 2006; Klassen & Tze, 2014). However, few studies consider teachers’ sense of self-efficacy in the track placement of their pupils. Since studies suggest that this topic implies possible conflicts and thorough negotiations with parents (Barg, 2015; Elbers & de Haan, 2014), teachers’ sense of self-efficacy in this matter deserves our attention. Especially in the absence of an explicit policy on how to formulate an educational recommendation, teachers’ self-efficacy in allocating pupils to tracks, can be an important factor hindering or encouraging teachers in the communication of their educational recommendation.

6.4.4 Current study

Previous studies on teacher recommendations have mainly focused on the type of recommendation given to pupils of different (ethnic and social) origins, and on the meritocratic or biased nature of the recommendation (Driessen et al., 2008; Schneider, 2011). However, considering the fact that educational allocation is very loosely organized in Flanders, we argue that it is important to look beyond the type of
recommendation, and focus on the actual interaction in which an educational recommendation is communicated and parents’ understanding of this educational recommendation. Based on previous studies it is reasonable to assume that the dynamics of interaction between teachers and parents in educational decision-making are different according to parents’ social and ethnic background (Lareau & Horvat, 1999; Lareau & Weininger, 2003; Reay, 1999, 2004). Furthermore, studies suggest that parents from lower social backgrounds depend more on information provided by the primary school in educational decision-making (e.g. Ambler, 1994; Ball, 2003), the teacher recommendation being one specific information aspect. Since parents from different social origins are likely to experience different needs for information, we investigate whether the primary school meets this need for information for every parent. Therefore, the aim of this study is twofold. First, an explorative qualitative analysis investigates how teachers engage with parents in communicating their educational recommendation and how this relates to parents’ experience of educational decision-making. Second, quantitative multilevel analyses identify which teacher and parent characteristics are most strongly related to parents’ perception of receiving an educational recommendation from the teacher. The combined results allow for a better understanding of the dynamics of the parent-teacher interaction in the communication of the educational recommendation by the primary school teacher.

6.4.5 The Flemish education context: policy and practice

The Flemish educational context provides an interesting opportunity to study the way parents perceive the educational recommendation by the teacher. In Flanders, pupils make the transition from primary to secondary education at age twelve. Secondary school lasts six years, and is divided in three grades, each lasting two years, characterized by increasing differentiation (see Figure 6 above). Theoretically, the first grade of secondary education is broad and comprehensive, to minimize the impact of this early educational choice on future educational careers. Students and their parents can choose between A-stream or B-stream. B-stream is meant for pupils who have been experiencing prior study difficulties, who are deemed less able for theoretically oriented education, or who did not obtain their certificate of primary education (Department of
Empirical studies

Education, 2008). Hence, this choice for B-stream is almost entirely determined by pupils’ performance, as is also shown by previous Flemish research (Boone & Van Houtte, 2010). The majority of pupils enters A-stream, which provides a comprehensive theoretical curriculum preparing for all future educational options. Nevertheless, within the first grade of A-stream, at least four optional courses are offered: Latin, modern sciences, technology and arts. These optional courses are each seen as specifically preparing for one of the educational tracks starting from second grade, as the curriculum is not taught in an equally challenging way in the different options (Van Houtte et al., 2013). Latin and modern sciences are perceived to prepare for the more prestigious academic track, technology would prepare for technical education and arts for artistic education. B-stream mostly leads to vocational education. Furthermore, many schools offer only one or two optional courses and educational tracks, leading to the existence of academic schools, technical/vocational schools and vocational schools (Van Houtte et al., 2012). Consequently, despite the official policy of a comprehensive and broad first grade in secondary education, tracking already starts at the beginning of secondary education. Switching back and forth between every educational track is theoretically possible, but in practice pupils mostly “fall back” from academic to technical or vocational tracks (i.e. the so called “cascade system”). The allocation process at the transition between primary and secondary education is loosely organized with few formal regulations. Due to these minimal central regulations, schools and teachers enjoy a lot of autonomy in organizing allocation for pupils and their parents. There are no centrally administered standardized tests or entrance requirements, and teacher recommendations are non-binding, leaving a great deal of the responsibility for educational choice to the parents. Nevertheless, for teachers, there are few guidelines with regard to the formulation of an educational advice. Meanwhile, the recommendation from the sixth-grade teacher is often the only advice offered to parents by educational professionals. Considering the choice-driven nature of the Flemish educational system, the educational recommendation can be an important information aspect for parents in confronting the non-transparent and complex educational structure.
6.4.6 Method

6.4.6.1 Design

This study adopts a simultaneous mixed-method design in which the results of the qualitative analyses are complemented with quantitative analyses. Combining qualitative and quantitative data allows us to simultaneously answer both exploratory and confirmatory questions (Teddlie & Tashakkori, 2003), hereby both generating and verifying theoretical implications and suggestions for educational policy.

A qualitative case study in one primary school explores the family-school interactions in educational decision-making. Data were collected through a combination of observations and in-depth interviews. Parent-teacher conferences (PTC) in 6th grade and a formal staff meeting preceding and preparing a second PTC were observed, to get a better understanding of when and how educational recommendations were formulated. Furthermore, in-depth interviews reflect on parents’ process of educational decision-making and the role of the primary school in this process. These qualitative data allowed us to gain more insight into parent-teacher dynamics and the role of the teacher recommendation in parents’ process of educational decision-making.

Quantitative multilevel analyses were used to confirm and expand upon the conclusions of the qualitative study. These analyses identify important characteristics influencing parents’ perception of having received an educational recommendation from the teacher. In analysing the quantitative data, multilevel analyses were most appropriate, since parents’ children are clustered in classes, taught by a class-specific sixth-grade teacher. This means that all parents whose children are in the same class communicate with one and the same teacher on educational recommendation. Since the outcome variable was dichotomous (received an educational recommendation or not), we performed a two-level binary logistic analysis including random intercept models (using MLwiN, version 2.26). The Iterative Generalised Least Squares method was applied and the algorithm converged, using second order Penalized Quasi Likelihood approximations (PQL). These are considered more accurate than first order MQL approximations (Hox, 2010; Kreeft & De Leeuw, 1988; Rodriguez & Goldman,
2001). Commonly, the start of multilevel analysis estimates unconditional models to divide the outcome variance into a within-class and between-class component. Although some say this is not appropriate for hierarchical logistic models – because the outcome is dichotomous – it can give an idea of the importance of considering class-level variables (Frost, 2007; Lee & Burkam, 2003). In the first model, we look at the effect of the sixth-grade teacher’s self-efficacy on the probability of parents to indicate having received an educational recommendation. A second model investigates the effect of the individual parent characteristics: perception of their relationship with the school, SES, ethnicity and cultural capital. These relationships are controlled for the recommendation the teacher would give, since previous studies point to a relation between parents’ involvement in track placement and the type of recommendation the teacher would give (Barg, 2015; Elbers & de Haan, 2014). Every independent variable was grand mean centred - except for the dichotomous variables - since this facilitates substantive interpretation of the effects (Hox, 2010; Kreeft & De Leeuw, 1988). The analyses use only those cases that have valid values on the included variables. Hence, the number of parents varies according to the model (see Section 6.4.6.2 below). Since socio-economic and ethnic background of the parents were highly correlated (Pearson Chi-Square= 311.193, p≤ 0.001), we chose to estimate their effects in two separate models.

6.4.6.2 Sample

Qualitative data were collected through a case study of a primary school in Ghent, a city in Flanders, the Dutch-speaking part of Belgium. The primary school has two separate sixth-grade classes. The school was purposefully selected as an instrumental case (Stake, 1995) out of a larger sample of schools participating in a research project on the transition from primary to secondary education, because of its mixed socio-economic and ethnic background and its explicit approach in communicating an educational recommendation to parents. The school denotes the PTC organized in February-March as an official moment to discuss school and track choices with parents. Furthermore, prior to this PTC, a recommendation is formulated for every pupil during a multidisciplinary staff meeting. Although this is to same extent a general approach in
the communication of educational recommendations, not all schools engage in such a deliberate and explicit way.

The qualitative data combine observations of all (2) formal PTC during the 6th grade and the multidisciplinary staff meeting on the one hand with in-depth interviews with parents on the other. Observation data were collected during the first and the second (final) PTC in 6th grade of primary education. In November 2015, during the course of three evenings we were able to assist and audiotape 40 PTC out of which 14 parents were selected for an in-depth interview (for detailed description of the respondents, see Table 15). This selection was driven by the aim of involving a mix of parents based on two criteria: first, the parents’ socio-economic background and second, their progress in the process of educational decision-making – whether or not they had already made a decision about a school and track for their child. Furthermore we aimed at a mix of high versus low(er) achieving pupils. The final PTC, in February- March 2016, was explicitly considered by the school as the formal moment in which school and track choice was discussed. Here, 38 interactions were observed of which 12 parents were interviewed. Two parents were absent during this last PTC, and were left out of the interview sample. The multidisciplinary staff meeting before the final PTC, in February 2016, was also attended and observed, since it provides a unique opportunity to gain insight in the ‘backstage’ (Goffman, 1990) motivations and reasoning of the primary school.
Table 15 Description of respondents in the qualitative sample in study 4

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Received advice</th>
<th>Social class</th>
<th>Ethnicity</th>
<th>Educational background</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Adel</td>
<td>no</td>
<td>WC</td>
<td>Moroccan</td>
<td>Secondary education*</td>
</tr>
<tr>
<td>2 Caroline</td>
<td>yes</td>
<td>UMC</td>
<td>Belgian</td>
<td>University / higher education</td>
</tr>
<tr>
<td>3 Erdal</td>
<td>yes</td>
<td>LMC</td>
<td>Turkish</td>
<td>Secondary education - technical</td>
</tr>
<tr>
<td>4 Yildiz</td>
<td>missing</td>
<td>LMC</td>
<td>Turkish</td>
<td>Secondary education / Secondary education*</td>
</tr>
<tr>
<td>5 Barbara</td>
<td>no</td>
<td>UMC</td>
<td>Belgian</td>
<td>University</td>
</tr>
<tr>
<td>6 Kristina</td>
<td>yes</td>
<td>WC</td>
<td>Albanian</td>
<td>Secondary education*</td>
</tr>
<tr>
<td>7 Els</td>
<td>yes</td>
<td>MC</td>
<td>Belgian</td>
<td>Higher education</td>
</tr>
<tr>
<td>8 Veerle</td>
<td>no</td>
<td>MC</td>
<td>Belgian</td>
<td>University</td>
</tr>
<tr>
<td>9 Katrien</td>
<td>no</td>
<td>WC</td>
<td>Belgian</td>
<td>Secondary education – general / vocational</td>
</tr>
<tr>
<td>10 Hannelore</td>
<td>yes</td>
<td>MC</td>
<td>Belgian</td>
<td>University</td>
</tr>
<tr>
<td>11 Gülhan</td>
<td>no</td>
<td>LMC</td>
<td>Turkish</td>
<td>Secondary education - vocational</td>
</tr>
<tr>
<td>12 Andrea</td>
<td>no</td>
<td>MC</td>
<td>Romanian</td>
<td>University*</td>
</tr>
<tr>
<td>13 Can</td>
<td>yes</td>
<td>WC</td>
<td>Turkish</td>
<td>Secondary education - vocational</td>
</tr>
<tr>
<td>14 Esra</td>
<td>yes</td>
<td>MC</td>
<td>Turkish</td>
<td>Higher education</td>
</tr>
</tbody>
</table>

Note: * followed secondary or higher education outside Belgium. WC = working class, LMC = lower middle class, MC = middle class, UMC = upper middle class

Quantitative data were collected in May 2016, in the entire sample of schools participating in the research project. This sample consists of 36 primary schools in Ghent and Antwerp, two cities in Flanders, characterized by a high level of socio-economic and ethnic diversity in their schools. The sample of schools was theoretically selected, based on school denomination (public and private schools) and the percentage of low SES pupils. We selected 18 schools of each denomination, of which 6 schools include the 33% lowest percentage of low SES pupils, 6 schools represent the middle 33% in percentage of low SES pupils and 6 schools encompass the 33% highest percentage of low SES pupils. A written questionnaire was completed by a total of 1044 parents of sixth-grade pupils (a response rate of 89.69%). At the same time, we distributed questionnaires for their sixth-grade teachers, which yielded a response from 65 sixth-grade teachers (a response rate of 100%). However, since three sixth-grade teachers did not provide valid values on the variable of teacher recommendation, the second and third model include only 62 out of the 65 original classes (see Table 17).
6.4.6.3 Variables

Dependent variable
The dependent variable was measured by asking parents whether or not they had received an educational advice from the primary school at the transition to secondary education. In our sample 502 parents (49.8 %) indicated they had not received an educational recommendation (see Table 16).

Independent variables
The efficacy of the sixth-grade teacher was measured by a standardized Likert-scale consisting of seven items, based on Bandura’s (2006) guidelines for constructing a self-efficacy scale. This scale specifically assessed teacher’s self-efficacy in formulating an educational recommendation and supporting pupils and their parents in the decision-making process. Teachers could rate every item with a score of one (totally disagree) to five (totally agree). Example items are: ‘I manage to recommend an educational option that fits the pupil’s capacities’ and ‘I manage to actively involve parents in educational choice counselling’ (see appendix A1). The scores of the seven items were summed up, resulting in a minimum score of 14 and a maximum score of 35. Cronbach’s alfa for this scale is 0.820. The self-efficacy score of the sixth-grade teacher is considered as a class-level variable. The average score on teacher efficacy is 27.77 with a standard deviation of 2.92.

The home-school relationship according to the parents was measured by a standardized scale consisting of ten items measuring the extent to which parent feel informed by the school, the extent to which they feel welcome at school and the overall judgement of their relationship with the school (see Appendix A1). This scale was based on previous Dutch and Flemish research (Driessen & Haanstra, 1996; Reynders, Van Heddegem, Nicaise, & Van Damme, 2004). Cronbach’s alfa for this scale was 0.715. The items were summed up resulting in a minimum score of 11 and a maximum score of 50. The average score on home-school relationship is 38.48, with a standard deviation of 5.89.

Parents’ socio-economic status was based on their current occupation and in case of unemployment, previous occupation was used. Parental occupations were recoded.
Empirical studies according to the Erikson, Goldthorpe & Portocarero classification (EGP) (Erikson et al., 1982). The measure for family SES was obtained by using the highest score of both parents. Our sample contains 25.7% parents of working class or unemployed parents, 18% parents of the lower middle class, 33% parents of the middle class and 23.3% parents of the upper middle class.

Parents’ ethnic background was assessed by asking parents about the birthplace of their child’s maternal grandmother, as is common in sociological research in the Netherlands and Belgium (Timmerman et al., 2002). If the child’s maternal grandmother was born in Belgium or a North-Western European country, parents were seen as part of the ethnic majority (coded 0). Otherwise, parents were seen as part of the ethnic minority (coded 1). In the sample there are 426 ethnic minority parents (40.9%).

Cultural capital of the parents was measured by a standardized scale consisting of four items that estimate the linguistic capital of parents, more specifically, the degree to which books, magazines and newspapers are bought and read in the family (See Appendix A1). These items were based on previous Dutch and Flemish research in primary education (Driessen, van Langen, & Vierke, 2002; Reynders et al., 2004). Cronbach’s alfa for this scale was 0.713. The minimum score on cultural capital is 4 and the maximum score is 20, with an average of 12.71 and a standard deviation of 3.63.

To obtain a measure for teacher recommendation, the sixth-grade teachers were asked to indicate which educational option he or she would recommend for every individual pupil in his/her class. In our sample 8.3% of the pupils would receive the recommendation for B-stream, 24.5% for Latin, 42.5% for modern sciences, and 24.7% for a technical or arts option.
### Table 16 Descriptive statistics: variables under consideration in study 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean or percentage</th>
<th>Standard deviation</th>
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<tr>
<td><strong>Dependent variable</strong></td>
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<td></td>
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<tr>
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<tr>
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<tr>
<td><strong>Individual-level variables</strong></td>
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<tr>
<td>Home-school relationship</td>
<td>38.48</td>
<td>5.89</td>
</tr>
<tr>
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<tr>
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<td>Upper middle class</td>
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</tr>
<tr>
<td>Cultural capital</td>
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<tr>
<td><strong>Recommendation (N=943)</strong></td>
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<tr>
<td>B-stream</td>
<td>8.3%</td>
<td></td>
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<tr>
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<td>Modern sciences</td>
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</tr>
<tr>
<td>Technical or arts option</td>
<td>24.7%</td>
<td></td>
</tr>
</tbody>
</table>

### 6.4.7 Results

#### 6.4.7.1 Parents’ perception of having received a teacher recommendation

In the primary school studied, the PTC in February-March is explicitly denoted as a formal moment to discuss educational choices with the parents. Prior to this PTC, a recommendation is formulated for every pupil during a multidisciplinary staff meeting. This way, the recommendation is to some extent a shared team decision and this felt as an aid for the teachers in communicating with parents. Notwithstanding the topic of
educational decision-making was consistently addressed by the teacher, parents did not always regard their message as an educational advice. This for various reasons related to both the message of the teacher and parents’ experience of educational decision-making. A thorough analysis of the teacher’s discourse in relation to parents’ educational decision-making depicted how, in some instances, teachers adapt their message to parents’ approach of educational decision-making. By February-March, the timing of the second PTC, many parents had already made up their minds about a school and track for their child. Some had already decided at the time of the first PTC. Hence, teachers’ recommendations sometimes became no more than a mere cross-check of the decisions made, the advice constricted to an endorsement of parents’ choices. Parents of high achieving students and endowed with a sound knowledge of the educational system, the latter being a prerogative of the highly educated middle class, display a strong sense of efficacy and independency in educational decision-making. For these parents educational decision-making is so self-evident that a track recommendation from the primary school becomes unnecessary. Veerle’s secondary school and track choice for her daughter, for example, was more or less decided by the first PTC in November. In spite of her remaining doubt about whether to choose for Latin or the newly introduced option of STEM, expressed during the first interview, she displayed no need whatsoever to discuss this with the primary school.

I: Is that something you would want to discuss with the teacher?
Veerle: Pff, [...] I think she would totally agree with the track. That track is feasible. But, the rest, I don’t know.

By the time the final PTC was due, her decision was made independent of the primary school. The teacher assumed the parents had decided and required no specific advice as could be observed during the staff meeting.

6 Science, Technology, Engineering and Mathematics
She is going to Lincoln high school and she will study Latin. That is set for months already, maybe even years, I don’t know. Anyhow, it has been decided a long time ago.

[Staff meeting, Teacher two]

Hence, the teacher’s recommendation was limited to some general statements about the pupil’s readiness for the transition which the parents did not regard as an educational recommendation.

Teacher: I think it would be good if someone would shake her up.. [referring to the pupil’s carelessness since her educational attainment comes naturally and without effort]

Veerle: Yes

Teacher: ... Cause uhm, she talks about Lincoln high school, Latin uhm..

Veerle: The words [referring to the Latin vocabulary she will need to study in secondary education] will... (laughs)

Teacher ... it will have to be correct though, it will have to be correct. She will have to study for it, that’s for sure. The way she is studying now, it won’t do, but she can manage a lot. She can work very independently eh yes that goes well in class. I can see she is ready to go to high school. Should we start tomorrow, it would be okay too. [PTC 2, March, teacher 2]

However, not all parents displayed this much confidence in educational decision-making. For parents in doubt about specific options within the A-stream, or with a severe lack of knowledge about the educational system, the advice offered by the primary school often remains either too general or too implicit for the parent in question to regard it as a satisfactory advice, or to even recognize it as such. For Katrien, for example, choosing a track that fits her son’s profile was a very stressful matter, subject to an intense debate within the family. Contrary to Veerle above, Katrien placed a lot of emphasis on the recommendation of the primary school.

I: Do you want to discuss this with the teacher?
Katrien: So to ask like what track do you think, uhm, is feasible for him, or what could interest him or what he would like to do. Because in the end, there’re the ones who sit with him in class, they can sense more than... It’s not because he can easily remember and gets an 8, but for all I know he sits there and has no interest in it, and we could think ‘oh he has an 8’

.....

But I think that eventually the school is in the best position to look at what a child can do, what a child likes to do, what interests him, what doesn’t interest him... [Katrien, working class mother, interview 1]

Yet, during the first PTC in November, Katrien did not manage to incite the teacher to discuss her concerns and therefore, the topic of educational decision-making remained untouched. Finally, the rather general recommendation given at the second meeting did not meet her needs for a more specific advice. Hence, she did not perceive to have received an educational recommendation from the teacher.

For him it was the advice that he could do general education, if he were to work for it. And that, we knew that already. [Katrien, interview 2]

The staff meeting made clear that the teacher was unaware of her doubts.

Yes I am convinced by that. He would have to work for it, but he can do that. Uhm, but if he can do it the easy way, he will choose to do it the easy way. I don’t know. The mother comes to the parent-teacher conference, I will have to talk to her once more, and hear what it will be. It doesn’t have to be decided yet of course. [Staff meeting, teacher 2]

Gülhan, a working class mother from Turkish descent, shares a similar role definition stressing the expertise of the primary school in choosing a suitable track for her son Berk.

I: What can the primary school do to help you?
Gülhan: Uhm, what kind of sector he would be good for. Cause I saw that in the news too, the child leaves at 7:30 am and is home at 4 pm, so most of the day
the school looks after the child, so they know even more of their character, those things, than the parents. If he gets home at 4 pm, he will be in bed at 9 pm for example. [Gühan, interview 1]

Nevertheless, the recommendation to Gühan given by the primary school at the second PTC got caught up by explicit enrolment endeavors from her older son’s secondary school. Also, Berk’s siblings assisted Gühan between the first and second PTC. Therefore, by the time the second PTC was due, Gühan already enrolled her son in the secondary school and the primary school’s track recommendation became to some extent redundant. Furthermore, Gühan did not fully understand the rather implicitly formulated recommendation given by the primary school, all she remembered was that the teachers said he can pass to secondary education.

Teacher: Did you get his school report on Tuesday?
Gühan: Yes I signed that immediately.

Teacher: Well, it could be that they [the secondary school] ask to have a look at it too. With these grades, he will have to work hard. He has a total of 58 percent now, but they will make him work hard there. But if he doesn’t want to cooperate, they will soon say ‘no technical education’, and then you might have to go to vocational education after the fall holidays. But he can do it eh, he can do it.

Mother: I hope so. [PTC 2, Teacher 2]

Explicit and well-formulated demands for advice do elicit rather specific argumentations on behalf of the teacher, resulting in the recommendation being perceived as such by the parents. This was especially apparent when parents explicitly procure advice regarding the feasibility of a general versus a more technical oriented track.

However, teachers’ recommendations do not always match parents’ educational preferences for their child. A recommendation for a “higher” track than aspired by the parents is a noticeable event for the parents in question. These recommendations trigger parents to reconsider their choices and the recommendation given is definitely
remembered, as was the case for Els, a middle class mother in search of a track that best prepares her son for his future ambition: working at Lego.

I: How important was the information and advice from the primary school for your final decision?

Els: Uhm, very important, because they [the primary school in fifth-grade] eventually did the first... offer let’s say it like that. To do technical education... So we knew in which direction we could look.

....

And then the teacher [PTC2, teacher 1] said: ‘I would rather choose the science option in the general track, then he can still... If he says “bah, I don’t like the theoretical part, I would rather do more practical work”, he can still change to technical education. While in the other direction, that’s not possible..’ [Els, middle class mother]

When parents’ aspirations collide with teacher judgements, generally meaning that the teacher would recommend a lower ranked educational track, another dynamic arises. The observations showed that teachers do not always make their recommendations explicit in interaction. We observed how teachers sometimes formulated their recommendation in diplomatic terms or even withheld their opinions, avoiding a direct confrontation with the parent. Nevertheless, in those instances where parents’ and teachers’ opinions tend to differ, the recommendations stick to parents’ minds as they all experienced a recommendation was given. In some cases, incited by firm opinions of the parents, teachers to some extent succumbed. Esra for example, a middle class mother from Turkish descent, instilled with a profound wariness towards potential social and ethnic bias in teacher recommendations, bypassed the teacher through a firm and non-negotiable announcement of her decision, A stream-general track, during the first PTC. Whereas the teacher at first expressed her doubts about the feasibility of this option, she more or less gave in later on in the talk and even during the staff meeting.

Uhm, and she would go to the Withney high school and follow the option of modern sciences, but she will have to work hard for that I think. But okay, it’s
Empirical studies

possible, others have made it too with questionable grades, sometimes, but I don’t see it in her. But that doesn’t always mean something (laughs). [staff meeting, teacher 2]

The teacher does not feel at ease in interaction with Esra and shared these feelings with her colleagues.

.. what she [Esra] does, doesn’t correspond with what she says. And I find that difficult in a conversation. You can’t see through her. [staff meeting, teacher 2]

Esra in turn was aware of her influence on the teacher’s recommendation.

Esra: They all know [her network] that she is enrolled in Whithney high school and they know that the teacher was positive the last time.
I: Yes.
Esra: I said: sometimes you have to say what’s on your mind. I felt like... because I was so convinced about my opinion in October, that she changed her reaction a bit. [Elsra, middle class mother from Turkish descent]

Only when teachers deem the pupil unfit for A-stream, an explicit confrontation becomes inevitable. Generally, the school organizes a separate and longer meeting with the parents involved and not seldom specialized staff members assist the teacher in this conversation. Often these negotiations commence early on in the school year. This message comes across very clearly to parents as for many parents the option for the B-stream is to be avoided by all means. Özkans father and sister for example already felt it coming during the first PTC although the teacher had not explicitly suggested B-stream.

I: Did you remember that? What did you think of that?
Sister: She said that he couldn’t go to general education, that he would not be able to go to general education.
Father: Would not be able.. bwoah... I say this again, they said that too for these two [his other children], by now, I don’t put much faith in that anymore, we will see. The last moment will decide it.
Sister: They were like promoting vocational education.

I: Was that your impression?

Father: No, that’s how it was! [interview 1, December]

In March the family was called for a special PTC in which the school proposed an adapted curriculum, which the family rejected for it leaves no other option than the B-stream. Here the class teacher and the special needs coordinator gave a detailed explanation of their considerations. Therefore, the recommendation was remembered clearly by the parents.

In sum, the most important finding from the qualitative observations and interviews, is that in some cases, the belated timing, differing opinions and implicit formulations, can undo the potential aid found in the recommendation of the primary school. Furthermore, throughout the interviews we noticed how parents sometimes made a distinction between the appraisal of their relationship with the primary school and how they experienced the primary school with regard to their educational decision-making. Although most parents were rather satisfied about the primary school in general, many parents were also critical towards the primary school’s expertise regarding educational decision-making. This was mostly the case for the middle class parents in our sample. Working class and especially the parents with a migrant background were more distrustful as they feared unfair recommendations for their child. Prior experience with discrimination in education and teacher recommendation, both personal or allegedly fostered distrust amongst these parents.

6.4.7.2 The role of home-school relationship and teacher efficacy

Results of the qualitative analyses suggested that although an educational recommendation was consistently discussed by the teacher, this was not always perceived as such by the parents. Quantitative results show that the distribution of parents indicating that they did or did not receive an educational recommendation from the primary school was almost 50/50: 49.8% of the parents in the entire sample indicated that they did not receive an educational recommendation. In our qualitative case study, this distribution was more in favour of parents indicating that they did
receive an educational recommendation, suggesting that an explicit approach of educational allocation (dedicating one PTC to the topic and formally determining the educational recommendation with a multidisciplinary team) pays off. Yet, even within this explicit policy we observed that the potential aid of the educational recommendations by the teacher can be questioned, especially for parents with a specific need for information and assistance.

The quantitative analyses expand upon these conclusions. The multilevel unconditional model showed a between class-variance in the probability that parents indicate having received an educational recommendation of 0.642 with a standard error of 0.162. The first model showed that the teacher efficacy in giving an educational advice had a positive effect (see Table 17, model 1). The probability to indicate having received an educational recommendation is higher for parents whose child’s sixth-grade teacher had a high sense of self-efficacy in formulating an educational recommendation (OR= 1.142, p≤ 0.01). For parents whose child’s sixth-grade teacher had a high self-efficacy score (based on the 75th percentile), the probability to indicate having received an advice was 54%, while this probability was 47% for parents whose child’s teacher had a low score on self-efficacy (based on the 25th percentile). Thus, a high score on self-efficacy of the teacher in formulating an educational recommendation, is positively related to parents indicating that they received an educational recommendation.

Furthermore, the second model of the multilevel analyses, demonstrated the importance of a good home-school relationship (see Table 17, models 2). When parents appreciate their relationship with the school, the probability for them to recognize the educational recommendation from the teacher as such is higher (OR= 1.084, p≤ 0.001). For parents who had a good relationship with the school (based on the 75th percentile), the probability to indicate having received an advice was 57%, while this probability was 43% for parents who had a worse relationship with the school (based on the 25th percentile). Thus, the difference in probability to indicate having received an educational recommendation between parents that had a good relationship with the school and parents that had a worse relationship with the school was 14 percentage points.
Contradictory to what the qualitative data suggested, the quantitative results showed no significant effect of individual SES and ethnicity of parents on the probability of having received an educational advice from the primary school (see Table 17, model 2a and model 2b). However, the qualitative data suggest that different mechanisms cancel each other out, concealing this effect. Parents from higher social classes have a lower need for information in educational decision-making, and if they need information, they are confident in interacting with the school (Lareau, 2001; Lareau & Weininger, 2003; Reay, 1999). Parents from lower social classes experience more need for information and advice, but also encounter more constraints, reducing their confidence and capability to extract important information from the teacher.

Individual parental characteristics that influence the perception of having received an educational recommendation are cultural capital, although only marginally significant (p≤0.10) in the model controlling for SES, and the type of recommendation the teacher would give for the pupil. Parents who scored higher on the linguistic capital scale, had a higher probability to report having received an educational recommendation from the teacher (OR= 1.042, p≤0.1) (see Table 17, model 2a). The significance of cultural capital in explaining differences in having received an educational recommendation should however not be underestimated. The very specific operationalization of cultural capital as linguistic capital might be inadequate in portraying this significance. The qualitative data underline the importance of other aspects of cultural capital, namely knowledge of secondary education and entitlement in interacting with the school.

Furthermore, if teachers indicated they would recommend the option of B-stream, the probability that parents indicated having received an educational recommendation was higher (with 17 percentage points), compared to when the teacher would recommend A-stream (see Table 17, model 2a and model 2b) (OR= 2.092, p≤0.05, see model 2a). This confirms the observation in the qualitative data that parents experience this recommendation more explicitly. Since this advice is often the result of a preceding process of low achievement or study difficulties and corresponding meetings with the primary school, parents would remember this process and the recommendation more than when a more common educational track such as modern sciences or the technical
option was recommended. Since previous studies have shown that teacher recommendations contain social bias (Boone & Van Houtte, 2013b; Schneider, 2011), the type of teacher recommendation variable also probably encloses a social class effect, since it is very likely that children who receive the recommendation for B-stream are mostly those with a lower socio-economic background.
Table 17 Results study 4: Parents that received (1) or have not received advice (0)

<table>
<thead>
<tr>
<th></th>
<th>Model 1: Class variables</th>
<th>Model 2a: Individual variables (SES)</th>
<th>Model 2b: Individual variables (Ethnicity)</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>𝛾</td>
<td>0.040 (0.136)</td>
<td>0.236 (0.260)</td>
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<tr>
<td></td>
<td>Odds ratio</td>
<td>1.041</td>
<td>1.266</td>
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<tr>
<td>Teacher efficacy</td>
<td>𝛾</td>
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<td>0.116 (0.045)**</td>
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<td>0.081 (0.015)**</td>
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<td>Ethnicity – immigrant (1)</td>
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<tr>
<td>Cultural capital</td>
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<td>Odds ratio</td>
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<td>Number of classes</td>
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Note: Presented are the gamma coefficients (𝛾) with standard errors between brackets, and odds ratios. *p ≤ .10, *p ≤ .05, **p ≤ .01, ***p ≤ .001
6.4.8 Discussion

Teacher recommendations can be seen as an important information aspect for parents’ educational decision-making process at educational transition moments. While most studies on teacher recommendations have tried to demonstrate and explain their biased nature (Boone & Van Houtte, 2013b; Schneider, 2011), this article examines the parent-teacher interaction in which the actual communication of the educational recommendation takes place. To this end, this study used a mixed-method design to gain more insight into 1) the dynamics in parent-teacher interactions regarding the communication of an educational recommendation and how this relates to parents’ experience of educational decision-making and 2) the factors determining parents’ perception of receiving an educational recommendation by the teacher.

Considering the non-transparent structure of the Flemish educational system and the emphasis on parental responsibility in educational choice, a pro-active approach of parents is required for well-informed decision-making. Meanwhile, a non-binding recommendation from the sixth-grade teacher, usually communicated at a parent-teacher conference, is the only advice given by educational professionals to parents, and this procedure is described by few formal regulations. Despite the potential aid of the educational recommendation for parents’ educational decision-making, our study indicates that exchange on this topic proposes challenges for both parents and teachers. Our findings show that teacher recommendations are not always explicitly experienced as such by the parents, nor explicitly communicated. We observed how belated timing, differing opinions and general or implicit formulation of the educational recommendation hinders the potential of the orientation advice. Some parents’ expectations towards information and assistance and the role they ascribe to the primary school differs from the primary schools’ approach and implicit role definition regarding the guidance of parents in the transition from primary to secondary education. The latter is not in keeping with some parents’ lived experiences of doubt and uncertainty confronted with the transition to secondary education.
Furthermore, parents expressed differing trust in the primary school in the process of educational decision-making. Whereas high SES parents sometimes fail to acknowledge the primary schools’ expertise regarding educational decision-making, parents with a migration background are more prone to experience distrust towards the recommendations of the primary school out of fear for unfair recommendations. This inevitably strains the dynamic in parent-teacher interactions regarding educational decision-making and proposes specific class and ethnic bound challenges to teachers. In accordance with the relative risk aversion thesis (Breen & Goldthorpe, 1997), the type of recommendation the teacher would give should exert a different influence on parents from different social backgrounds, considering the differing distance between their social class of origin and the social class of destination to which every specific option would lead for their child. In this study, we were not able to quantitatively test interaction-effects between the type of recommendation the teacher would give and parents’ social background – because the groups created for this interaction effect were too small – but future research could further elaborate on this.

In line with Johnson & Turner (2013), we endorse the benefits of combining diverse data in educational research for understanding the pitfalls and challenges in parent-teacher interactions regarding track placement. The use of a mixed-method design allowed for a unique insight into parent-teacher dynamics and led us to discern potential for improvement. Because of the emphasis on parents as ultimate decision-makers, teacher recommendations play a rather ambivalent role in parents’ educational decision-making. The quantitative results showed that if parents appreciate their relationship with the school, the probability for them to recognize the educational recommendation from the teacher increases. Therefore, in line with previous research, this study points to the need for good home-school relationships and to considering both actors’ perspectives in educational research (Reynolds et al., 2015). Furthermore, we observed a mismatch between teachers’ and parents’ role definitions regarding educational advice. Making mutual expectations more explicit could be one step in overcoming the obstacles found in communicating educational recommendations. Literature on parental involvement stressed the importance of schools responsiveness for (parental)
role-definitions and self-efficacy (Hoover-Dempsey et al., 2005). This research suggests that this might also hold with regard to parent-teacher interactions regarding educational decision-making.

The results further suggest that a more explicit educational policy should enhance teachers’ sense of efficacy in formulating an educational recommendation. This can be done by acknowledging the importance of professionalizing teachers in the guidance of parents during the educational decision-making process or encouraging deliberate consultation with colleagues on this. A higher self-efficacy of teachers in formulating an educational recommendation enhances the probability that parents report having received an educational recommendation from the primary school. This finding builds on the previously studied positive effects of teachers’ sense of self-efficacy (Caprara et al., 2006; Klassen & Tze, 2014), but shows that self-efficacy can also be of particular importance with regard to educational allocation, specifically with regard to the parent-teacher communication on educational recommendations.

In sum, within a choice-driven system and in the absence of formal regulations for teacher guidance, track recommendations risk to be superfluous. A more explicit policy within the school aimed at good home-school relations and support of teachers in formulating and communicating track recommendations with pupils and their parents could cater for this. In addition, in line with other research on parent-teacher interactions this study showed, in the context of educational decision-making, how parents’ experience and role definitions regarding educational decision-making impact on the course and outcome of this interaction. An explicit policy on track placement can pay off, when embedded in a critical, responsive vision on parental involvement with explicit attention to professionalizing and supporting teachers in the communication of an educational recommendation. Furthermore, our study suggests that acknowledging the mechanisms of social class that are at play in the educational decision-making process, can enhance the extent to which the primary school meets the need of parents in this process, challenging a one-size-fits-all-approach in parent-teacher dynamics (Crozier & Davies, 2007). Acknowledging the social bias in choice-driven systems (Ball, 2003), and responding to parents’ diverging needs for information and assistance in
confronting the complex and non-transparent education system, could make the track recommendation more effective.
7.1 Summary of the main findings

Research on educational choice has shown how pupils’ educational transitions are influenced by their socio-economic background, irrespective of prior achievement (i.e. the secondary effect of social class) (Boone & Van Houtte, 2013a; Ditton & Krüsken, 2006; Duru-Bellat, 2002; Jackson et al., 2012; Jæger, 2009; Kloosterman et al., 2009 & Kraaykamp, 2009). The role of teachers in the institutional sorting process at educational transitions has been investigated by examining the extent to which teacher recommendations are meritocratic or biased by pupils’ social background (Boone & Van Houtte, 2013b; Luyten & Bosker, 2004; Schneider, 2011). Evidence of the biased nature of teacher recommendations has led Esser (2016) to suggest that a tertiary effect of social class should be added to Boudon’s (1974) original distinction between the primary and secondary effect. This tertiary effect consists of the impact of different teacher attitudes towards pupils with different social and ethnic backgrounds on educational allocation. More specifically, the tertiary effect is concerned with differing teacher expectations, evaluations and recommendations in the institutional sorting process. Few studies have, however, investigated the mechanisms of the tertiary effect. Moreover, studies that investigate the role of the teacher in educational allocation have paid little attention to the class and school context within which the teacher operates.

In this dissertation, I argued that, in order to understand the mechanisms of the tertiary effect at the transition from primary to secondary education, it is of vital importance to look at teachers as embedded in the context of the primary school. However, large-scale quantitative school effects studies on educational decision-making have been
preoccupied with the study of peer effects, and have ignored the role of the teacher in school composition effects (Boone & Van Houtte, 2012; Kauppinen, 2008; Lauen, 2007). School effects research in general has scarcely integrated school composition effects with the role of school processes in terms of teachers’ beliefs and behaviour (for notable exceptions, see: Agirdag, Van Avermaet, et al., 2013; Brault et al., 2014; Rumberger & Palardy, 2005). Therefore, this dissertation aimed to unravel the mechanisms through which teachers, as part of the primary school, influence inequality in educational decision-making at the transition from primary to secondary education in Flanders, the Northern, Dutch-speaking part of Belgium. This was done using quantitative and qualitative data gathered in 2015-2016 in Ghent and Antwerp. The main findings are summarized and discussed in four main parts: the secondary effect of social class, the tertiary effect of social class, classroom and school effects in educational decision-making, and the dynamics of the parent-teacher interaction in educational decision-making.

The secondary effect
Our findings confirm previous studies demonstrating that inequality in educational choice, conceptualized by Boudon (1974) as constituting a secondary effect of social class, continues to exist (Boone & Van Houtte, 2013a; Ditton & Krüsken, 2006; Jæger, 2009; Kloosterman et al., 2009). More specifically, the empirical studies presented in this dissertation demonstrate that, at the transition from primary to secondary education, pupils’ educational choices are influenced by their SES. Pupils with a high SES are less likely to choose a practical option, compared with their low SES counterparts, irrespective of ability. In addition, our results indicate that pupils’ ethnic background influences their educational decisions. That is, pupils with an immigration background are less likely to choose a practical option. This is in line with previous studies demonstrating that ethnic minority students are more ambitious in their educational aspirations (Frost, 2007; Goldsmith, 2004; Mickelson, 1990). Previous research suggests that these ambitious educational aspirations of ethnic minority students can be explained by their more positive abstract attitudes, with which they praise the role of education for social mobility (Mickelson, 1990).
Furthermore, our findings indicate that there is not only inequality in educational choice, but also in the difficulties parents encounter in the process of educational decision-making. These difficulties significantly change the experience of educational decision-making for both pupils and their parents. Parents from lower social classes who lack the necessary knowledge of the Flemish education system experience both a higher need for information and more constraints in interacting with the primary school. This is in line with research demonstrating the class-related character of home-school interactions in general (Lareau, 2001; Lareau & Weininger, 2003) and in track placement in specific (Barg, 2012; Bonizzoni et al., 2016; Elbers & de Haan, 2014; Useem, 1992). In addition, the importance of knowledge about the education system confirms previous studies showing that the extent to which parents are endowed with social (Ball, 2003; Horvat et al., 2003) and cultural capital (Gewirtz et al., 1995b; Reay, 2004) provides them with the necessary knowledge to participate in the education market.

**The tertiary effect**

Furthermore, our findings suggest that Boudon’s (1974) original distinction between primary and secondary effects can be extended with the notion of a tertiary effect of social class. This tertiary effect was conceptualized by Esser (2016) as demonstrating the role of the teacher in the institutional sorting process. The role of the teacher is, according to Esser (2016), most evident in the differential teacher expectations, recommendations and evaluations for pupils with different social and ethnic backgrounds. With regard to teacher expectations, our findings confirm that teacher expectations influence not only pupils’ achievement (Jussim & Harber, 2005; Rubie-Davies, 2010) and pupils’ self-concept of ability (Jussim, 1989; Trouilloud et al., 2002), but also pupils’ actual educational choices (Becker, 2013). In addition, our findings indicate that teacher expectations for pupils’ future educational progress are shared among teachers at the same school, constituting a culture of teacher expectations. According to our analyses, this culture of teacher expectations influences pupils’ educational decisions. A positive culture of teacher expectations is related to a lower likelihood of a pupil choosing a practical option rather than an academic one. However, since the causality of relations is difficult to establish, it can also be the case that at
schools where pupils are less likely to choose an academic option, teacher expectations are therefore lower. Nevertheless, based on previous research, we can assume that teachers’ expectations influence pupils’ educational decisions (Becker, 2013; Jussim, 1989; Trouilloud et al., 2002). This can come about through pupils’ socialization into the staff culture (Kemper, 1968; Van Houtte, 2004b; Wentzel, 1999) or through teachers’ individual expectations and visible behaviour towards students as the surface manifestations of the culture of teacher expectations (Schein, 1984; Van Houtte, 2004b).

Individual teacher expectations can influence educational choices in two ways. First, in line with Becker’s (2013) model, pupils and their parents will, for example, evaluate their probability to succeed in the academic track as lower when experiencing low teacher expectations and will therefore be less inclined to choose the academic option. Second, it is not too far-fetched to assume that teachers’ educational recommendations are based on their expectations for a pupil’s future educational performance (de Boer et al., 2010; Timmermans et al., 2016). The role of the teacher in the institutional sorting process is not only apparent in the influence of teachers’ expectations of a pupil’s future performance, but also in the provision of unequal teacher recommendations. Low SES pupils are less likely to receive the advice to enrol in an academic option, compared with equally able but high SES pupils. This finding is in line with research demonstrating social bias in teacher recommendations at the transition to secondary education (Barg, 2012; Boone & Van Houtte, 2013a; Schneider, 2011; Wagner et al., 2009). In addition to demonstrating the socially biased nature of teacher recommendations, our findings add evidence of ethnic inequality in teacher recommendations. Pupils from the ethnic majority have a higher likelihood of being advised to enrol in an academic option, compared with equally able ethnic minority pupils. However, since effects of ethnicity and SES are hard to disentangle, this effect of ethnicity could also partly be due to the different socio-economic status of ethnic minority students. For example, Ball (2002) argues that ethnic differences in educational choice cannot be explained without reference to social class.

Nevertheless, the results on ethnic bias in teacher recommendations confirm the qualitative findings of Bonizzoni and colleagues (2016) who showed that educational
recommendations of teachers are less academically oriented for ethnic minority students. According to their study, ethnic bias in teacher recommendations can be explained by the fact that teachers adopt a paternalistic attitude towards ethnic minority students, directing them towards technical or vocational schools to protect them from failing in the more ambitious schools. The results of Bonizzoni and colleagues (2016) show how teachers’ assumptions about their students’ socio-economic conditions and preconceptions about their lack of cultural and linguistic resources, prompt them to expect that students with ethnic minority backgrounds will not “fit in” in the more university-oriented track. In line with this finding, we hypothesize that considering teacher perceptions of ethnic minority pupils could be particularly useful in explaining the ethnic bias in teacher recommendations. For example, additional analyses on Transbaso research data show that pupils’ ethnic background influences teacher recommendations indirectly through teachers’ assessment of pupils’ school appropriate behaviours (for example: planning, self-reliance, motivation to learn) and teachers’ assessment of pupils’ language skills (Sneyers, Vanhoof, & Mahieu, 2017a).

Previous research has assigned an important role to teacher perceptions of pupils’ non-cognitive but class-related attributes in trying to explain social bias in educational recommendations (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013a; Ditton & Krüsken, 2006; Duru-Bellat, 2002). In particular teacher perceptions of pupils’ study attitude (Bonizzoni et al., 2016; Boone & Van Houtte, 2013b) and parental support (Barg, 2012; Ditton & Krüsken, 2006) are named as offering possible explanations for the social bias in teacher recommendations. Our findings show that teachers are more likely to recommend an academic option to a pupil who they assess positively with regard to study attitude and parental support. However, although these teacher perceptions influence educational recommendations in a positive way, they do not sufficiently explain the biased nature of teacher recommendations. This confirms a study by Schneider (2011), showing that the impact of social background on educational recommendations remains, even when taking students’ positive school behaviour into account.
Class and school effects

What previous investigations into the role of the teacher in educational allocation seemed to have forgotten, is that teachers adapt their pedagogy and practice to the class and school context in which they teach (Fang, 1996; Stevens, 2007; Van Zanten, 2005). Our findings suggest that this is also the case with regard to teacher recommendations. More specifically, our findings indicate that educational recommendations are formulated by teachers within the frame of reference of the class and the school.

At the school level, our findings show that teachers are socialized into the staff culture in terms of expectations of the pupils’ future performance. At schools with a high proportion of ethnic minority students, the culture of teacher expectations is less positive than at schools with a lower proportion of ethnic minority pupils. This is in line with existing literature on teachers’ teachability beliefs at ethnically diverse schools (Agirdag, Van Avermaet, et al., 2013; Brault et al., 2014). Possible explanations for lower teacher expectations of ethnic minority students can be found in the activation of stereotypical information when teachers judge their students (Glock & Krolak-Schwerdt, 2014; McKown & Weinstein, 2008), or in the implicit prejudiced attitudes of teachers (van den Bergh et al., 2010).

The impact of teacher expectations becomes apparent in the fact that high educational ambitions of pupils at ethnically diverse schools are tempered by a less positive culture of teacher expectations at these schools. In schools with a high proportion of ethnic minority pupils, educational choices would be more ambitious, compared with schools with a lower proportion of ethnic minority students, but only if the cultures of teacher expectations are equally positive at both types of schools. The positive effect of ethnic diversity on educational aspirations is in line with existing literature (Frost, 2007; Goldsmith, 2004; Van Houtte & Stevens, 2010). According to Goldsmith (2004), the optimistic attitudes of individual ethnic minority students create a positive normative climate that raise the educational beliefs or expectations of all students.
However, previous studies have also shown that ethnic minority students tend to perform lower at school (Lee & Burkam, 2002; Mickelson, 1990). According to a study by Mickelson (1990), the discrepancy between the underachievement of black high school students and their high educational ambitions (i.e. the attitude-achievement paradox) can be explained by the notions of concrete and abstract attitudes towards education. According to Mickelson (1990), abstract attitudes cannot predict variations in student achievement because they are widely shared. Abstract attitudes consist of the idea of education as a means for upward mobility. Concrete attitudes, however, are class- and race specific and depend on the extent to which pupils perceive that adults in their environment enjoy the benefits of their educational credentials. Concrete attitudes provide a better explanation for the lower grades of working-class or ethnic minority pupils because they are based on the perception that the job returns of adults in their environment are not commensurate with their education, due to unfair treatment at work. Our findings indicate that teachers’ expectations and recommendations can contribute to ethnic minority students’ pessimistic concrete attitudes towards schooling. That is, pupils’ concrete attitudes towards their future schooling can be influenced by the teachers’ perceptions of the appropriateness of high educational ambitions for ethnic minority students. Whether teacher expectations are false or accurate (Jussim & Harber, 2005), teachers fulfil an important role of gatekeeping in answering differently to educational aspirations of students of differing ethnic background (Farkas et al., 1990).

In line with previous research, our findings indicate that teachers and schools frame educational allocation within a human capital perspective, in which the most prestigious educational options are recommended to the most deserving pupils in terms of ability, effort and interest (Kelly & Price, 2011; Oakes & Guiton, 1995). Our findings cast some doubt on the awareness of teachers and schools of the bias in educational recommendations and of the influence of social class on some of the criteria used to formulate an educational recommendation. This is evident in the finding that explicit attention paid to educational allocation does not seem to result in equalizing inequalities in educational recommendations, but instead in maintaining existing
selection effects. Teachers’ perceptions of their school as having a clear policy on educational allocation result, albeit in a very modest way, in a stronger effect of SES on teacher recommendations and a larger gap in recommendations between low and high SES students. Thus, if teachers perceive that more attention is paid to educational allocation at their school, they seem to formulate their recommendations in a slightly more biased and reproductive way. The fact that teachers and schools are poorly aware of the influence of pupils’ socially determined non-cognitive aspects can explain this finding.

At the classroom level, the ability composition appeared most important for teachers’ recommendations. That is, the average ability of pupils elicits a “frog pond” effect for teacher recommendations (Davis, 1966). This way, teacher recommendations are not only related to the absolute ability of a pupil, but also to their ability as relative to the average ability in the classroom. Teachers are less inclined to recommend an academic option in a class with a high average ability. Moreover, our analyses showed that teachers are more likely to recommend an academic option to pupils with a low individual ability in a low average ability class than to pupils with the same ability in a high average ability class. The same reasoning holds for pupils with a mean individual ability score, but pupils with a high ability score are least affected by the average ability of the classroom. In addition, this “frog pond” effect (Davis, 1966) is especially evident in case pupils are of equal ethnicity. Thus, only in case of equal ethnicity, relative ability is important for teacher recommendations. This indicates that relative ability might be less important for pupils in highly diverse classes. We carefully hypothesize that this might be due to ethnic bias in teacher expectations, since previous research suggests that teacher expectations are generally already lower in classes and schools with a high percentage of ethnic minority pupils (McKown & Weinstein, 2008; Thys & Van Houtte, 2016).

These results suggest that the social contrast mechanism, or the “frog pond” effect, is not only applicable to self-evaluation, as initially theorized (Davis, 1966; Jonsson & Mood, 2008), but also to the teacher’s evaluation of his/her pupils in deciding which educational option to recommend. The ability composition of the class can thus be seen
as fulfilling a comparative reference group function for teachers, whereby the average ability provides a point of comparison for evaluations and recommendations (Kelley, 1968). This is in line with previous studies indicating that the average achievement level in the classroom is taken into account by teachers in evaluating each individual pupil (Rothenbusch et al., 2016; Trautwein et al., 2006).

The parent-teacher interaction

Since pupils are only 12 years old at the transition from primary to secondary education in Flanders, educational decision-making is steered strongly by parents. Hence, the communication of the teacher recommendation is for a large degree directed towards parents. However, our findings revealed that the parent-teacher interaction concerning educational recommendations is constrained by some barriers. These barriers question the extent to which the primary school and the sixth-grade teacher meet every parent’s need for information at the transition to secondary education. Results show that while the topic of educational decision-making was addressed by the teacher to every parent in a parent-teacher conference, parents do not always regard the teachers’ message as an explicit advice with regard to which educational option to choose for secondary education. On the one hand, teachers’ general or implicit formulations of the educational recommendation result in parents not always understanding the educational recommendation as such. On the other hand, parents’ differing need and efficacy to evoke a discussion on the topic of educational decision-making determine the parent-teacher dynamic.

Within this process, an important role can be attributed to the approach of teachers and schools in guiding pupils and their parents in the process of educational decision-making. The influence of the school policy appears particularly important with respect to establishing a responsive relationship with parents on the one hand, and enhancing teachers’ sense of self-efficacy in formulating an educational recommendation on the other. The latter is evident in the finding that teachers who feel confident in formulating an educational recommendation for their pupils are more efficient in communicating this educational recommendation to parents; as shown by the fact that parents are then more likely to indicate that they have received an educational advice from the primary
school. In addition, parents who assess their relationship with the school in general as rather positive, are more likely to perceive having been given an educational recommendation from the primary school. However, our results also show differing ways in which parents appreciate the primary school’s expertise in the process of educational decision-making. That is, working class parents and parents with a migration background experience feelings of distrust towards the primary school with regard to educational recommendations, out of fear for unfair treatment. Furthermore, middle class parents were critical towards acknowledging the expertise of the primary school in educational allocation. This suggests the importance of a school’s responsive attitude towards parents’ implicit role definition (Hoover-Dempsey et al., 2005) in terms of who is the most important actor to assess which educational option is best suited to their child.

To conclude
In sum, this dissertation emphasized how a tertiary effect of social class influences inequality in educational decision-making through differing teacher expectations, evaluations and recommendations of pupils from different social and ethnic backgrounds. It was argued that teachers’ perceptions in the process of educational allocation are particularly important for their role in counteracting or reinforcing inequality in educational choice (i.e. the secondary effect). The teacher and the primary school in the institutional sorting process can, according to the empirical studies presented here, be seen as gatekeepers at branching points in education (Farkas et al., 1990). In this respect, Farkas (1990) argued that teachers differentially reward basic skills and work habits of students from different social and ethnic backgrounds. This would be especially important with respect to the exclusion and recruitment of students to high status positions (Lamont & Lareau, 1988). Since it is implicitly assumed that higher educational levels are more open to culturally rich students (Bonizzoni et al., 2016), although not explicitly recognized as such, schools and teachers can play a role in reproducing educational inequality in the process of educational decision-making. If awareness about the class related character of teacher recommendations and of the process of educational decision-making in general is missing, the teacher
recommendation cannot successfully fulfil its potential as a corrective force for biased parental aspirations (Ditton et al., 2005).

7.2 Discussion

7.2.1 Limitations and directions for future research

In coming to these findings, our empirical studies were subject to some limitations. Most importantly, the fact that our sample consists of schools in Ghent and Antwerp, two urban areas, entails that the results cannot reliably be generalized to the rest of Flanders. A study by Dronkers and colleagues (1998) suggests that higher educational recommendations are more common in urban areas of the Netherlands, irrespective of pupils’ ability. Therefore, we suggest to treat the conclusions presented here as portraying a specific picture of educational decision-making within an urban context with a high degree of socio-economic and ethnic diversity.

In terms of operationalization, a number of choices limit the scope of the study. The ethnic composition of the school and class was consistently operationalized as the mean percentage of ethnic minority students per class or school. Yet, it is possible that a measure of class diversity in terms of ethnic heterogeneity influences teacher recommendations and educational choices in a different way. The importance of ethnic heterogeneity for teacher expectations is suggested by a study of McKown and Weinstein (2008), who showed that a high classroom diversity in terms of ethnic heterogeneity, combined with high differential teacher treatment of low and high achieving students, leads to more ethnic bias in teacher expectations. One way to investigate ethnic heterogeneity in a classroom or school would be to use a Herfindahl-index, that measures ethnic heterogeneity in terms of the different ethnic subgroups that are present (Putnam, 2007). At the individual level, our measure of ethnicity was dichotomous and did not include further specifications of subgroups of ethnic minority students. This dichotomous operationalization was preferred because different ethnic subgroups were not always large enough to make further distinctions. However, concerning teacher expectations (McKown & Weinstein, 2008; Tenenbaum & Ruck, 2007) and educational recommendations (Dollmann, 2016), research has shown how
specific ethnic minority groups are disadvantaged. Future research could thus consider the process of educational decision-making for specific ethnic minority groups. Moreover, since in the Flemish education system, schools enjoy a lot of autonomy in organizing educational allocation, school-specific policies could be of particular interest. In this dissertation, a school’s policy on educational allocation was measured only in terms of the mere existence of a policy, not in terms of the specific contents of it. Future studies would benefit from qualitative investigations of how schools build a policy on educational allocation and how this affects inequality in educational recommendations.

Our empirical studies revealed some interesting findings that fell out of the scope of this dissertation. Most notably, the findings suggest that gender inequality exists in educational choice and in teacher recommendations at the transition from primary to secondary education. Results showed that girls are less likely than boys to choose a practical option. In addition, girls are also more likely to receive the advice to enrol in an academic track than boys. These gender differences in educational recommendations are closely related to the fact that teacher perceptions of pupils’ study attitude are more positive for girls than for boys. This gender effect in educational recommendations is in line with the mechanisms that would explain the educational gender gap in general. For example, previous studies have shown that ideal study behaviour is seen as feminine (Coenen, Meng, & van der Velden, 2011), and that boys are perceived as less motivated (Warrington, Younger, & Williams, 2000), or as being less self-disciplined with homework (Duckworth & Seligman, 2006; for a comprehensive overview, see Vantieghem, Vermeersch, & Van Houtte, 2014). Research on gender and educational attainment shows how gender affects study involvement in different tracks of secondary education (Van Houtte, 2017) and also how gender affects pupils’ choice of study for post-secondary education (Beattie, 2002), but gender differences in the earlier transition from primary to secondary education are less investigated (for a notable exception, see: Timmermans et al., 2016). In addition, our empirical studies investigated the impact of the class and school composition in terms of pupils’ SES, ethnicity and ability, but not in terms of gender. Nevertheless, research has shown that a school’s gender composition influences pupils’ study attitudes (Van Houtte, 2004a), school
misconduct (Demanet, Vanderwegen, Vermeersch, & Van Houtte, 2013) and students’ feelings of futility (Van Houtte & Vantieghem, 2017). Future research could also consider the impact of gender composition on educational decision-making and teacher recommendations.

It is also important to note that the way student ability is operationalized impacts on the picture of the primary, secondary and tertiary effect that is sketched by the empirical results. Since no standardized testing is used at the transition from primary to secondary education in Flanders, our study operationalized pupils’ ability by means of a Raven test, that provides a standardized measure of ability, comparable between all pupils and all schools. It is possible that including a genuine measure for school achievement (in terms of grade point average) would enlarge the primary effect and diminish the secondary and tertiary effect. Moreover, Luyten and Bosker (2004) argue that, due to an increased research focus on displaying the social and ethnic bias in teacher recommendations, literature has moved away from the role of pupils’ achievement and effort at transition moments in education. The results of their study (2004) indicate that teachers’ educational recommendations are mostly meritocratic and determined by pupils’ school achievement and effort, rather than by pupils’ background variables, although an effect of social background remains. Similarly, Driessen and colleagues (2008) argue that student achievement is the most important factor for teacher recommendations. Still, other studies have clearly shown that, even when controlling for school achievement, pupils’ educational choices and teachers’ educational recommendations are biased by social or ethnic background (Barg, 2012; Boone & Van Houtte, 2013a). Additional analyses on Transbaso research data shows that SES is the third most important factor that influences teacher recommendations (the first being the teacher’s assessment of the pupil’s mathematics skills and the second being the teacher’s assessment of the pupil’s school appropriate behaviour) (Sneyers et al., 2017a).

This dissertation did not set out to investigate the relative importance of school achievement versus social background on educational recommendations. In this respect, we cannot elaborate on the extent to which teacher recommendations are meritocratic rather than biased. However, we do not wish to disregard the fact that
educational recommendations are probably for a large part based on pupils’ achievement. In fact, qualitative data of the Transbaso research project shows how teachers look at student interests, efforts and achievement as primary determinants of their recommendation (Sneyers, Vanhoof, & Mahieu, 2017b). However, this does not undo the fact that, during the empirical studies, we uncovered that two pupils of equal ability will be affected by their social or ethnic background in the educational recommendation they receive. Moreover, Luyten and Bosker (2004) do find that parental educational background affects the recommendation more for pupils with low achievement. Thus, among pupils with low achievement, the difference in educational recommendation between low and high SES pupils is larger. This suggests that a higher SES compensates for pupils’ low achievement at primary school, while this advantage is absent for pupils from with a low SES.

In addition, although this dissertation focusses on the teacher recommendation as important information for students in educational decision-making, the relationship between the teacher recommendation and the actual educational choice of pupils and their parents was not investigated here. This does not undo the importance of the teacher recommendations in terms of providing important information and in terms of potentially providing a corrective force for biased parental aspirations (Bonizzoni et al., 2016; de Boer et al., 2010). Additional analyses (not shown in this dissertation) suggest that, of those parents that perceive of having received an educational recommendation, most parents in all socio-economic classes agree with the teacher recommendation and intend to follow it (Boone, Thys, Van Avermaet, & Van Houtte, 2016). There are small differences between SES groups, but the reaction of parents to the teacher’s advice depends more on the type of recommendation that is given by the teacher. We see that most parents who get the advice for A-stream are inclined to follow this advice (61.1%), while those parents that get the recommendation for B-stream mostly disagree (60%) 

(Pearson $\chi^2 = 5.38$, $p \leq 0.05$). Furthermore, when getting the advice to enrol in an academic option, most parents agree (67.4%), while most parents that get the recommendation for a practical option disagree (59.6%) (Pearson $\chi^2 = 42.99$, $p \leq 0.001$).
However, we still see that a high percentage of parents indicates that they do not intend to follow the advice from the teacher. In a system that places heavy emphasis on educational choice and in which the recommendation is not binding, pupils and their parents are free to deviate from the recommendation as they wish. In line with the relative risk aversion thesis (Breen & Goldthorpe, 1997), the type of teacher recommendation could exert an interaction effect with pupil background characteristics on the extent to which pupils and their parents are inclined to follow the teacher’s advice. In addition, based on existing research (e.g. Ball, 2003) we can assume that the extent to which parents follow the recommendation will be class related, with parents of high social classes being more endowed with the necessary knowledge and skills to deviate from the teacher recommendation. Dustmann and colleagues (2004) argue that parents of lower educational background consider the teacher recommendation as more binding than parents of higher educational background. Future research could consider the actual impact of the educational recommendation on educational choice in more detail. To what extent do parents and their pupils follow educational recommendations given by the teacher? And on which features does this depend?

7.2.2 Suggestions for educational policy

The main findings as summarized here, can be seen as contributing to a number of scientific and public debates in the field of education. The fact that, in the Flemish education system, teacher recommendations are not binding, has been repeatedly mentioned throughout all empirical studies to demonstrate the loose character of the transition from primary to secondary education. Since the Flemish education system, as most European systems, places heavy emphasis on choice, the teacher recommendation plays an ambiguous role in educational decision-making. First, notwithstanding the fact that the teacher recommendation constitutes an important information aspect for pupils and their parents in educational decision-making, social bias inevitably strains its importance. Second, educational recommendations risk to be superfluous, considering the fact that the emphasis on free choice in education designates parents as the ultimate decision-makers. These two factors signal that the potential aid of the teacher recommendation in the Flemish education system can be questioned. This challenges
both pupils and their parents in their need for specific information, and teachers in communicating their advice.

**Binding teacher recommendations?**

According to a quasi-experimental study by Dollmann (2016), secondary effects are smaller for pupils of native backgrounds when teacher recommendations are binding. German pupils of low educated backgrounds have higher probabilities to transition to the more advantageous track of upper secondary education (‘Gymnasium’) in a system with mandatory teacher recommendations, and German pupils of high educated backgrounds had reduced probabilities to transition to the most advantageous track. However, for students of immigrant backgrounds, an introduction of mandatory teacher recommendations presents a disadvantage, since immigrant students had lower probabilities to transition to upper secondary education in mandatory settings, but higher probabilities to choose a more ambitious track in systems with free choice. The initial advantage of immigrant students and their parents to deviate from the recommendation given by the teacher and to choose the higher track that they aspired, disappeared and turned into a disadvantage in systems with binding teacher recommendations. These results were especially apparent for low educated students. Mandatory teacher recommendations produce a push-effect for German students of low educated backgrounds, encouraging them to transition to a more ambitious track, while this push-effect is absent for immigrant students of low educated backgrounds. Similarly, Jackson and colleagues (2012) argue that choice-driven systems benefit immigrant students. In addition, based on previous studies, it can be assumed that parents will exert more pressure on the teacher to get a certain educational recommendation if this recommendation is binding (Barg, 2012; Dronkers et al., 1998). This would increase the importance of parental involvement in track placement, which is, according to previous research, class-related (Barg, 2015; Elbers & de Haan, 2014; Horvat et al., 2003).

Our study shows that, more important than introducing a binding character for teacher recommendations, educational policy should direct attention towards the tertiary effect of social class, and should raise awareness among teachers and schools of the social and
ethnic bias in teacher recommendations. In a context where educational recommendations are biased and do not always reach parents, educational policy makers should direct more explicit attention to the way in which educational recommendations are formulated – based on which criteria – and to the way in which they are communicated to parents. Currently, there are no guidelines for teachers and schools on how to organize the process of educational allocation and on how to formulate educational recommendations. Our results point to a high need of supporting teachers in this task. In this respect, we feel that teacher education should pay more explicit attention to the effects of social class on pupils’ educational trajectories in general.

Our findings demonstrated how teachers take into account class-based perceptions in formulating their educational recommendation. These results call for an urgent dialogue on which criteria teachers should take into account in formulating an educational recommendation. In addition, our findings call for an increased awareness among teachers of the class-related and contextual factors that are, either consciously or unconsciously, taken into account by teachers. Awareness about these factors could also encourage schools to take compensating measures for pupils of lower SES or ethnic background. For example, our findings show that teachers take into account non-cognitive pupil characteristics such as pupils’ study attitude and parental support, for which pupils with lower social backgrounds are often assessed lower. Since previous research has underscored the importance of non-cognitive skills for educational and occupational success (Farkas, 2003), it seems logical that teachers take these aspects into account. However, if awareness about the class related nature of these characteristics is missing, inequality could unintentionally be reproduced. Moreover, considering the young age of pupils in transitioning to secondary education, these aspects should be seen as malleable and not as fixed characteristics. For example, support with homework at school and helping pupils to develop a good study attitude in primary education would possibly enlarge the opportunities for pupils with lower SES or ethnic minority backgrounds in the transition to secondary education.
In addition, the way in which teacher expectations influence teachers in their pedagogic behaviour in general and in their assessment of pupils in specific should be an important concern in teacher education. Our empirical findings show that teacher expectations can influence pupils’ educational choices at transition moments in education. Teachers should be made more aware of this impact of teacher expectations and of the way they are socialized into a school culture of teacher expectations.

Lastly, our findings suggest a need to professionalize and support teachers in educational allocation. That is, our results demonstrated how teachers sometimes formulate their recommendation in a cautious, implicit or general way. This might be related to the fact that teachers experience feelings of futility towards educational allocation, since they know that parents choose whatever they want anyway. However, this does not undo the fact that some parents are in need of specific information on secondary education, and that the teacher can provide them with this information. In addition, our findings suggest that an explicit policy on behalf of the primary school concerning educational recommendations, could target teachers’ efficacy in formulating an educational recommendation to pupils and their parents. One way to do this is to support the sixth-grade teacher in deciding which educational option to recommend through explicit collaboration or discussion of the recommendation in a multidisciplinary staff meeting. Furthermore, the teacher recommendation should be communicated in a dialogue responsive to parents’ and pupils’ need for support and guidance.

**Standardized testing?**

A vital issue in scientific debates on teacher recommendations, is concerned with their meritocratic or biased nature. Luyten and Bosker (2004) argue that the observed trend towards more meritocratic recommendations in the Netherlands is due to the increased use of the standardized CITO-tests. Their findings point to an equalizing force of standardized testing, by showing that, at schools where the CITO-test was not taken, pupils’ background has a stronger influence on educational recommendations than at schools where the test was used. This would suggest that introducing standardized tests
Conclusion and discussion

can diminish the tertiary effect of social class and could produce teacher recommendations that are more exclusively determined by student achievement.

The debate on standardized testing concerns what Jackson and Jonsson (2013) defined as the selectivity of an education system. Highly selective systems, that is systems that sort students mainly based on student achievement, would reduce the secondary effect, because it reduces the influence of parental background on educational choice. However, Jackson and Jonsson (2013) fail to empirically support this hypothesis and suggest that the lack of empirical support for this statement is due to two factors. On the one hand, the high association between the degree of stratification and selectivity of a system makes it possible that these two mechanisms counteract each other. Highly stratified systems (enlarging the secondary effect) are likely also highly selective systems (reducing the secondary effect). On the other hand, the authors argue that ‘every education system leaves plenty of room for manoeuvre’ (Jackson & Jonsson, 2013, p. 329), which means that, even in highly selective systems, pupils and their parents can still influence educational choice. This can come about, for example, through taking preparatory courses for tests, whether or not standardized, or through debating the teacher recommendation (see: Barg, 2012).

Thus, educational policy should take the entire picture of social inequality into account in evaluating the benefit of introducing standardized tests. Previous research suggests that standardized tests could decrease the tertiary effect, because teacher recommendations are less affected by pupils’ background when standardized tests are used (Luyten & Bosker, 2004). However, based on other research demonstrating the effect of social class on achievement (Lee & Burkam, 2002), we can assume that introducing standardized testing will likely lead to an increase of the primary effect. Therefore, a word of caution is necessary when considering the use of standardized testing. Standardized tests should be treated as what they are: snapshots of pupils’ specific cognitive abilities, that do not take into account a number of social factors that could hinder a successful score on the test. Furthermore, the stakes of standardized testing increase when the results are used in terms of the accountability of schools (Van Avermaet, Van Houtte, & Van den Branden, 2011). Standardized testing can also
enhance competition among students, teachers and schools, creating a stressful climate for young children.

In the masterplan of the current Flemish government, it is announced that the use of a standardized test at the end of primary school will be obligatory for every school starting from the school year of 2017-2018. Looking more closely at the results of Luyten and Bosker (2004) in the Netherlands, we see that the standardized CITO-test is especially equalizing for educational recommendations if teachers’ perceptions of the pupil’s ability differ greatly from the test score, while the authors note that normally, these two grading variables are highly correlated. This suggests that the way teachers and schools use standardized test scores is of vital importance. In light of the empirical studies presented in this dissertation, and the findings from previous research (Jackson & Jonsson, 2013; Luyten & Bosker, 2004; Van Avermaet et al., 2011), a combination of a standardized test score and a teacher recommendation seems most promising in tackling the tertiary effect, if both standardized tests and teacher recommendations are used to re-evaluate each other. A sole introduction of an obligatory standardized test without clear guidelines on how to treat the results will likely be insufficient.

Postponing educational choice

It is clear that the weight of the primary, secondary or tertiary effect of social class is determined by institutional characteristics of the education system (Jackson & Jonsson, 2013). A most prominent feature in this respect is the degree of stratification. In Flanders, a discrepancy exists between policy and practice in terms of the age at which tracking starts. In the mind of most pupils, parents and teachers, this first educational choice is situated at the transition to the first grade of secondary education (when pupils are 12 years old), while officially tracking only starts when pupils go to the second grade of secondary education (when pupils are 14 years old). Several studies have shown that early stratification enlarges the secondary effect (Blossfeld & Shavit, 1991; Jackson & Jonsson, 2013; Mare, 1980). Therefore, the high consequences of the secondary and tertiary effect could be diminished by actually postponing educational choice. This would reduce the necessity to make anticipatory decisions at an early age (Jackson et al., 2007; Kloosterman et al., 2009).
In addition to the age at which tracking starts, the possibility of mobility between tracks is also important. Dustmann and colleagues (2014) demonstrate that the possibility of up- and downgrading after middle school in Germany diminishes the impact of the track attended in middle school on long-term occupational outcomes for students who are at the threshold between two tracks. However, an increased flexibility to change tracks and schools could also be mostly in favour of privileged families, since they are more inclined to use the possibility of intra-secondary mobility to their advantage (Triventi et al., 2016). A study by Jacob and Tieben (2009) shows that students of highly educated parents are more likely to change to a higher track within secondary education. Still, reducing the importance of the early choice at age 12, and loosening up path dependencies, could reduce the consequences of inequality in educational choice for inequality of educational opportunity in general.

To conclude

In sum, this dissertation contextualized the presumably individual process of educational decision-making of pupils and their parents, through large-scale multilevel studies including data of the most important actors involved. This dissertation not only confirmed the existence of a tertiary effect of social class in educational transition moments, but also identified the mechanisms through which this tertiary effect can manifest itself. This way, this dissertation enhances our understanding of how social class influences pupils’ educational trajectories. In addition, it enhanced our understanding of the role of the teacher and the primary school in educational decision-making. Above all, this research project shows a need to support and professionalize teachers in providing educational advice at the transition from primary to secondary education. Thereby, it appears of vital importance to raise awareness of the impact of social class on educational choices of pupils, on educational recommendations of teachers, and on the process of educational decision-making in general.
The importance of analysing choice to understand educational inequality is made apparent by the fact that two equally able pupils, one with a low SES and one with a high SES background, are likely to attain different educational credentials due to the choices they make at branching points in education. In this regard, sociologists of education agree that inequality in educational attainment is due to two distinct effects of social class: the primary effect (i.e. inequality in educational achievement) and the secondary effect (i.e. inequality in educational choice, irrespective of achievement) (Boudon, 1974). In most European education systems, a first important branching point is the transition from a comprehensive primary school to increasingly differentiated secondary education. This transition from primary to secondary education often determines the confines within which pupils’ future educational trajectories will unfold. Research has shown that a high SES pupil is more likely to choose the more demanding, academic track in secondary education, compared with an equally able but low SES pupil (Flanders, Belgium: Boone & Van Houtte, 2012; Germany: Ditton & Krüsken, 2006; Denmark: Jæger, 2009; the Netherlands: Kloosterman et al., 2009; Italy: Ress & Azzolini, 2014).

Explanations for social inequality in educational choice can be divided into three main strands: cultural reproduction theory (Bourdieu & Passeron, 1977), social capital theory (Coleman, 1988) and rational choice theory (Boudon, 1974; Breen & Goldthorpe, 1997). These explanations mostly rely on characteristics of the family and mechanisms within it, while paying little attention to features of the primary school. However, research shows that pupils’ educational aspirations and choices are influenced by the school context in terms of socio-economic, ethnic and achievement composition (Frost, 2007; Jonsson & Mood, 2008; Kauppinen, 2008). School effects research on educational choice at the transition to secondary education has nevertheless paid little attention to school effects other than peer effects and have neglected the role of the teacher.

The role of the teacher in educational allocation has been investigated by examining the extent to which teacher recommendations are biased by pupils’ social or ethnic background (Barg, 2012; Bonizzoni et al., 2016; Boone & Van Houtte, 2013b; Schneider,
2011; Wagner et al., 2009). These studies point to the influence of teachers on inequality in educational decision-making. Teachers are more likely to recommend an academic option to a pupil with a high SES or ethnic majority background, compared with an equally able but low SES or ethnic minority student. In fact, it is argued that this can be seen as embodying a tertiary effect of social class (Esser, 2016). Pupils with a low SES do not only obtain different educational credentials due to lower achievement (i.e. the primary effect), and due to self-selection at branching points in education (i.e. the secondary effect), but also due to teachers’ differing behaviours and attitudes when directing pupils towards specific tracks (i.e. the tertiary effect). Research on inequality in teacher recommendations has however neglected the class and school context within which the teacher operates. Nevertheless, studies have shown that teachers adapt their perceptions and practices to the school context in which they teach (Stevens, 2007; Van Houtte, 2011b; Van Zanten, 2005).

Therefore, this dissertation investigates the mechanisms through which teachers, as part of the primary school, can influence inequality in educational decision-making at the transition from primary to secondary education in Flanders, the Northern, Dutch-speaking part of Belgium. This is done using large-scale quantitative data, gathered in the period of 2015-2016 in Ghent and Antwerp, complemented with qualitative data gathered in Ghent during the same period.

Overall, our findings suggest that Boudon’s (1974) original distinction between the primary and secondary effect can be extended by introducing the notion of a tertiary effect of social class. The tertiary effect of social class is conceptualized by Esser (2016) as depicting inequality in educational allocation through class-related teacher expectations, evaluations and recommendations. The results of our studies confirm that teacher recommendations are influenced by their pupils’ socio-economic and ethnic background. Teachers are less inclined to recommend an academic option (i.e. Latin or modern sciences) to low SES or ethnic minority pupils than to pupils with a high SES or without a migration background, irrespective of ability. In addition to this social and ethnic bias in teacher recommendations, our findings revealed a gender effect. Girls have a higher probability to receive the advice to enrol in an academic option than boys,
irrespective of ability. This gender effect was explained by the fact that teachers assess girls’ study attitude more positively than that of boys. This is in line with previous research suggesting that teachers’ perceptions of pupils’ work habits are influenced by pupils’ gender (Duckworth & Seligman, 2006; Jones & Myhill, 2004; Vantieghem et al., 2014).

Previous studies suggest that social bias in teacher recommendations can be explained by the fact that teachers take into account their perceptions of two non-cognitive but class-related pupil attributes, namely: parental support and study attitude (Bonizzoni et al., 2016; Boone & Van Houtte, 2013b). Research has suggested that teachers use a middle-class standard to evaluate pupils’ behaviours and attitudes at school (Rist, 1970). Our results confirm that teachers take into account their perceptions of pupils’ parental support and pupils’ study attitude in deciding which educational option to recommend. A positive perception of pupils’ study attitude and parental support is related to a higher likelihood that the teacher will recommend an academic option. Nevertheless, our findings show that social bias in teacher recommendations cannot be explained only by the fact that teachers take these class-related factors into account. This points to the importance of investigating other factors that can enhance our understanding of the role of the teacher in educational allocation. Our findings indicate that two aspects are of particular importance: teacher’s expectations for a pupil’s future educational performance, and the way teachers and schools perceive of and organize educational allocation.

According to our analyses, the school policy on educational allocation can influence the impact of SES on teacher recommendations, albeit in a very modest way. More specifically, our findings indicate that if teachers perceive that explicit attention is paid to educational allocation at their school, the impact of pupils’ SES on teacher recommendations is greater, compared to at schools where teachers do not perceive of educational allocation as an explicit part of the school policy. This finding casts some doubt on the awareness of teachers and schools of the impact of social class on teacher recommendations. In addition, this finding suggests that little attention is paid to the impact of social class on teacher recommendations in school-specific policies on
educational allocation. This way, educational allocation seems to result in maintaining existing selection-effects, rather than in providing a correction to class-related parental aspirations.

The school policy on educational allocation is also of importance for the parent-teacher interaction with regard to educational decision-making. Results show that although teachers consistently address the topic of educational decision-making to every parent in a parent-teacher conference, parents do not always regard the teachers’ message as an explicit advice about which educational option to choose in secondary education. We hypothesize that teachers formulate their educational recommendations in a careful way, resulting in implicit and general formulations, because they want to respect parents’ autonomy and freedom in educational decision-making. However, this results in the fact that teachers and schools do not always meet every parent’s need for information.

This need for specific information is related to parents’ efficacy in educational decision-making. Parents from lower social classes who lack profound knowledge of the Flemish education system experience both a higher need for information and more constraints in interacting with the primary school. These constraints are evident in the lower capability to elicit explicit advice from the teacher. Our results further suggest that some parents are critical or distrustful of the primary school’s expertise with regard to educational allocation. The role of the school policy in this process, is apparent in the importance of maintaining a good relationship with parents and of enhancing teachers’ sense of self-efficacy in formulating an educational recommendation. That is, parents have a higher likelihood of feeling that they have received an educational recommendation from the primary school if they praise their relationship with the school, and if the sixth-grade teacher experiences a high sense of self-efficacy in formulating educational recommendations.

In addition, our results show that not only teachers’ perceptions but also teachers’ expectations of pupils’ future performance are important. Our results indicate that the shared expectations among teachers of the same school constitute a culture of teacher
expectations, which influences students’ educational choices. Lower shared teacher expectations are related to a reduced likelihood of pupils choosing an academic option. This was especially evident for schools with a high proportion of ethnic minority pupils. One the one hand, our results show that pupils’ educational choices are more ambitious at schools with a high proportion of ethnic minority pupils. On the other hand, our findings indicate that teachers’ expectations are lower at ethnically diverse schools. Pupils’ educational choices would thus be more ambitious at schools with a high proportion of ethnic minority students, compared with less ethnically diverse schools but only if teachers’ expectations would be equally positive at these two types of schools. This corresponds to previous research showing that high educational ambitions of ethnic minority students create a positive normative climate at school (Frost, 2007; Goldsmith, 2004). The results, however, also suggest that teachers’ expectations can discourage pupils with regard to their educational choices, or can deter high educational aspirations.

Lastly, our results show that teachers are not only influenced by school composition and school policy but also by the classroom context. More specifically, our findings suggest that the average ability level of the classroom influences teacher recommendations, in line with the mechanism of relative deprivation or the “frog pond” effect (Davis, 1966). According to the “frog pond” effect, students evaluate their own achievement in comparison to the achievement of fellow students, and make career decisions based on this relative achievement. Our results show that this mechanism not only accounts for students’ self-evaluation, but also for teachers’ evaluation of the pupils in their classroom. Teachers evaluate pupils’ ability as relative to the average ability in the class. Our findings indicate that teachers are less inclined to recommend an academic option in a classroom with high average ability. In addition, a pupil with a low individual ability score had a lower probability to receive the advice to enrol in an academic option in a classroom with a low average ability, compared to an equally able pupil in a classroom with a high average ability.

Overall, our findings show that teachers’ perceptions and attitudes in the process of educational allocation can influence inequality in educational choice at the transition
from primary to secondary education. In turn, teachers’ perceptions and attitudes are influenced by the class and school context in which they teach, in terms of class and school composition and in terms of school policy. This dissertation enhances our understanding of how social class influences pupils’ educational trajectories. More specifically this dissertation unravels the role of the teacher, as part of the primary school, in this process. Above all, this dissertation illustrates the need to support and professionalize teachers in educational allocation. Thereby, it appears of vital importance to raise awareness of the impact of social class on pupils’ educational choices, teachers’ educational recommendations and the process of educational decision-making of pupils and parents at the transition from primary to secondary education.
Het bestuderen van de keuzes die leerlingen en hun ouders maken tijdens hun schoolloopbaan is van belang voor het begrijpen van ongelijkheid in behaald onderwijsniveau. Dit wordt duidelijk in de bevinding dat twee leerlingen met dezelfde cognitieve bekwaamheid, waarvan één met een hoge sociaaleconomische status (SES), en één met een lage SES, verschillende diploma’s zullen behalen omdat ze andere keuzes maken op overgangsmomenten in hun schoolloopbaan. In dit opzicht zijn onderwijs- en sociologen het erover eens dat sociale ongelijkheid in het onderwijs aan de hand van twee verschillende effecten van sociale klasse kan worden beschreven (Boudon, 1974). Het primair effect van sociale klasse omvat de sociale ongelijkheid in schoolse resultaten. Daarbovenop zien we echter ook dat leerlingen en hun ouders, los van het sociale klasse-effect op prestaties, andere keuzes maken tijdens hun schoolloopbaan. De sociale ongelijkheid in deze keuzes wordt beschouwd als een secundair effect van sociale klasse.

In de meeste Europese onderwijsystemen is de overgang van een algemeen vormend basisonderwijs naar een gedifferentieerd secundair onderwijs een eerste belangrijk beslissingsmoment. Deze overgang van basis naar secundair tekent vaak de kritlijnen uit waarbinnen de verdere schoolloopbaan van leerlingen zich zal aftekenen. Eerder onderzoek toont aan dat leerlingen met een lagere SES minder vaak in die studierichtingen terecht komen die voorbereiden op een diploma hoger onderwijs, in vergelijking met even bekwame leerlingen met een hoge SES (Boone & Van Houtte, 2012; Ditton & Krüsken, 2006; Jæger, 2009; Kloosterman et al., 2009; Ress & Azzolini, 2014). Deze sociale ongelijkheid in studiekeuze (i.e. het secundair effect van sociale klasse) wordt doorgaans verklaard aan de hand van de volgende drie theoretische stromingen: culturele reproductietheorie (Bourdieu & Passeron, 1977), sociaal kapitaal theorie (Coleman, 1988) en rationale keuze theorie (Boudon, 1974; Breen & Goldthorpe, 1997). De verklaringen die deze theorieën bieden, zijn voornamelijk gebaseerd op mechanismen die zich afspelen binnen het gezin, terwijl ze minder aandacht hebben besteed aan de rol van de basisschool in het proces van studiekeuze.

Enkele recente studies bestudeerden de rol van de leerkracht in studiekeuze door te kijken naar de mate waarin die leerkracht zijn/haar studieadvies op een meritocratische manier formuleert (Barg, 2012; Bonizzi et al., 2016; Boone & Van Houtte, 2013b; Schneider, 2011; Wagner et al., 2009). Deze studies wijzen er op dat de leerkracht een belangrijke rol kan spelen bij sociale ongelijkheid in studiekeuze. Er werd namelijk vastgesteld dat de leerkracht zich in zijn/haar studieadvies ook laat leiden door de sociale achtergrond van leerlingen. Leerlingen met een lagere SES worden minder vaak georiënteerd naar een academische studierichting, in vergelijking met leerlingen met dezelfde bekwaamheid maar een hogere SES. Er werd onlangs zelfs geopperd dat deze ongelijkheid in studieadviezen geconceptualiseerd kan worden als een tertiair effect van sociale klasse (Esser, 2016). Leerlingen met een lagere SES behalen ongelijke niveaus in het onderwijs, niet alleen doordat ze minder goede punten behalen op school (i.e. het primair effect van sociale klasse), of doordat er zelfselectie optreedt in overgangsmomenten (i.e. het secundair effect), maar ook doordat leerkrachten ze naar andere richtingen doorverwijzen op basis van hun verwachtingen of attitudes ten aanzien van deze leerlingen (i.e. het tertiair effect).

Onderzoek dat de ongelijkheid in studieadvies bestudeert, heeft echter Weinig aandacht voor de klasse- en schoolcontext waarbinnen de leerkracht functioneert. Toch tonen studies over het algemeen aan dat leerkrachten hun handelingen en percepties aanpassen aan de schoolcontext waarin ze lesgeven (Stevens, 2007; Van Houtte, 2011b; Van Zanten, 2005). Daarom onderzoekt het voorliggend proefschrift hoe de leerkracht, als deel van de basisschool, ongelijkheid in studiekeuze bij de overgang van basis naar
secundair onderwijs in Vlaanderen kan beïnvloeden. Dit onderzoek baseert zich op een grootschalige kwantitatieve dataverzameling in 2015-2016 in Gentse en Antwerpse basisscholen en op aanvullende kwalitatieve data die gedurende dezelfde periode in een Gentse school werden verzameld.


Dit doctoraatsonderzoek bevestigt dat het studieadvies van de leerkracht 6e leerjaar beïnvloed wordt door de sociale en etnische achtergrond van leerlingen. Leerkrachten zijn minder geneigd een academische optie (Latijn of moderne wetenschappen) aan te raden aan een leerling met een lage SES of met een migratieachtergrond, in vergelijking met een leerling met een hoge SES of zonder migratieachtergrond, zelfs al zijn deze leerlingen even bekwaam. Naast deze invloed van de sociale en etnische achtergrond van leerlingen op het studieadvies van de leerkracht, tonen onze resultaten ook een invloed van gender. Meisjes krijgen vaker het advies om een academische richting te volgen dan jongens en dit ongeacht hun bekwaamheid. Dit gender effect wordt verklaard door het feit dat leerkrachten de studiehouding van meisjes positiever inschatting dan die van jongens. Deze bevinding bevestigt de suggestie van eerder onderzoek dat gender van invloed is op de manier waarop leerkrachten leerlingen beoordelen (Duckworth & Seligman, 2006; Jones & Myhill, 2004; Vantieghem et al., 2014).

Eerder onderzoek suggereert dat de sociale bias in studieadvies verklaard kan worden door het gebruik van twee sociale klasse gerelateerde criteria in het bepalen van een studieadvies, namelijk: thuisondersteuning en studiehouding (Bonizzoni et al., 2016; Boone & Van Houtte, 2013b). Onderzoek wijst uit dat leerkrachten aspecten van studiehouding evalueren aan de hand van een middenklasse standaard (Rist, 1970).
Onze resultaten bevestigen dat leerkrachten bij het geven van een studieadvies rekening houden met de studiehouding van leerlingen en met de mate waarin ze verwachten dat de leerling in kwestie van thuis uit ondersteund zal worden. Wanneer een leerkracht de studiehouding of thuisondersteuning van een leerling positief inschat, is hij/zij meer geneigd om deze leerling een academische studieoptie aan te raden.

Toch tonen onze resultaten ook aan dat de sociale bias in het studieadvies niet alleen verklaard wordt door het feit dat leerkrachten deze klasse-gerelateerde criteria gebruiken in het geven van een studieadvies. Dit wijst erop dat het van belang kan zijn aandacht te besteden aan andere factoren die de rol van de leerkracht in sociale ongelijkheid in studiekeuzes kunnen verduidelijken. Ons onderzoek impliceert dat het daarvoor van belang is te kijken naar de verwachtingen die leerkrachten van hun leerlingen hebben enerzijds en de manier waarop leerkrachten en scholen het proces van studieoriëntering organiseren en percipiëren anderzijds.

In dat laatste opzicht speelt het beleid dat de school voert omtrent studieoriëntering een rol in het in stand houden van sociale ongelijkheid in studieadvies, hoewel deze invloed zeer klein is. Specifiek impliceren onze resultaten dat de invloed van sociale achtergrond op studieadvies groter is op scholen waar leerkrachten het gevoel hebben dat er expliciet aandacht wordt besteed aan studieoriëntering, in vergelijking met scholen waar leerkrachten minder het gevoel hebben dat er een beleid is rond studieoriëntering. Dit zou er op kunnen wijzen dat scholen en leerkrachten zich weinig bewust zijn van de sociale ongelijkheid in studieadvies. Bovendien suggereert deze bevinding dat scholen in hun beleid rond studieoriëntering weinig aandacht besteden aan sociale ongelijkheid. Op die manier lijkt studieoriëntering de bestaande selectie-effecten in stand te houden, eerder dan dat het een middel is om sociale ongelijkheid in studiekeuze tegen te gaan.

Het beleid van de basisschool is ook van belang voor de manier waarop de interactie tussen ouders en leerkrachten met betrekking tot studiekeuze verloopt. Onze resultaten tonen immers aan dat ouders niet altijd het gevoel hebben dat ze een studieadvies kregen van de basisschool, ondanks het feit dat leerkrachten consequent en voor elke
ouder het topic van studiekeuze aanhalen op het oudercontact. Vermoedelijk zijn leerkten vaak voorzichtig in het formuleren van hun studieadvies omdat ze de autonomie en de vrijheid van ouders willen respecteren, wat resulteert in een impliciete en algemene formulering van het studieadvies. Dit houdt echter ook in dat de leerkracht en de basisschool niet altijd voldoen aan de nod aan specifieke informatie die sommige ouders ervaren. Voor deze nood aan informatie is vooral het bekwaamheidsgevoel van ouders in het maken van een studiekeuze van belang. Ouders van lagere sociale klassen met weinig kennis van het Vlaamse onderwijssysteem ervaren zowel een hogere behoefte aan informatie als meer drempels in de interactie met de basisschool. Deze drempels uitten zich vooral in termen van de mate waarin zij op een efficiënte manier aanspraak kunnen maken op de leerkracht en de basisschool voor specifieke informatie. Daarnaast zien we dat echter ook dat sommige ouders zich kritisch of wantrouwijk opstellen ten opzichte van de expertise van de basisschool op vlak van studieoriëntering.

Het schoolbeleid speelt niet alleen een belangrijke rol bij het opbouwen en behouden van een goede relatie met ouders maar ook bij het ondersteunen van de leerkracht 6e leerjaar in zijn/haar bekwaamheidsgevoel in het formuleren van een studieadvies. Ouders geven namelijk vaker aan dat zij een studieadvies kregen van de basisschool indien de klasleerkracht van hun kind zich zelfzeker voelt in de studieoriëntering van zijn/haar leerlingen.

Naast het belang van leerkrachtpercepties blijken ook leerkrachtverwachtingen ten aanzien van de toekomstige prestaties van leerlingen een belangrijke rol te spelen. Onze resultaten tonen aan dat het gedeeld verwachtingspatroon van het lerarenteam van een basisschool, of wat wij hier de cultuur van leerkrachtverwachtingen noemen, een invloed uitoefent op de studiekeuzes van leerlingen. We vonden dat op basisscholen waar een minder positieve cultuur van verwachtingen heerst onder de leerkrachten, leerlingen minder vaak voor een academische richting kiezen. Deze dynamiek blijkt vooral van tel op scholen met een hoog percentage leerlingen van een etnische minderheid. Enerzijds vonden we dat op scholen met een hoog percentage leerlingen van een etnische minderheid leerlingen meer geneigd zijn ambitieuze studiekeuzes te maken. Anderzijds tonen onze analyses dat het verwachtingspatroon van leerkrachten
op deze scholen minder positief is dan op scholen met een kleiner percentage etnische minderheden. Op etnisch diverse scholen zouden leerlingen dus eigenlijk meer geneigd zijn een academische richting te kiezen, ware het niet dat de leerkracht verwachtingen in deze scholen lager liggen. Indien de verwachtingen van leerkrachten op etnisch diverse scholen even positief zouden zijn als op minder diverse scholen, dan zouden leerlingen op etnisch diverse scholen meer geneigd zijn om voor een academische richting te kiezen. Dit is in lijn met voorgaand onderzoek dat aantoont dat hoge onderwijsambities van leerlingen met een migratieachtergrond een positief normatief klimaat creëren op school (Frost, 2007; Goldsmith, 2004). Daarnaast doen deze resultaten vermoeden dat leerkrachtverwachtingen leerlingen kunnen ontmoedigen in hun hoge onderwijsambities.

Tot slot tonen onze resultaten aan dat de leerkracht in het proces van studieoriëntering niet enkel beïnvloed wordt door de school- maar ook door de klascontext. Meer specifiek blijkt uit onze bevindingen dat de gemiddelde cognitieve bekwaamheid van leerlingen in de klas een invloed uitoefent op de studieadviezen van de klasleerkracht, in lijn met het gekende mechanisme van relatieve deprivatie (Davis, 1966). Volgens dit mechanisme evalueren leerlingen hun eigen bekwaamheid door die te vergelijken met die van hun medeleerlingen, en is vooral deze relatieve bekwaamheid van belang in het maken van carrièrekeuzes. Onze resultaten tonen aan dat dit niet enkel geldt voor zelfevaluatie, maar ook voor de manier waarop leerkrachten hun leerlingen evalueren. Leerkrachten zijn volgens onze resultaten minder snel geneigd een academische richting te adviseren in een klas zitten waar de gemiddelde cognitieve bekwaamheid hoog is. Zo heeft een leerling met een lage individuele cognitieve bekwaamheid bijvoorbeeld minder kans om te worden doorverwezen naar een academische studierichting als hij/zij in een klas zit met een hoge gemiddelde bekwaamheid, dan in een klas met een lage gemiddelde bekwaamheid.

Samenvattend kunnen we stellen dat de percepties en attitudes van leerkrachten in het proces van studieoriëntering een invloed kunnen uitoefenen op ongelijkheid in studiekeuze bij de overgang van basis- naar secundair onderwijs. Op hun beurt worden de percepties en attitudes van leerkrachten dan weer beïnvloed door de klas- en
schoolcontext waarin ze lesgeven (in termen van de samenstelling van het leerlingenpubliek en het schoolbeleid). Met deze bevindingen verruimt dit doctoraatsproefschrift het inzicht in de manier waarop sociale klasse de schoolloopbaan van leerlingen beïnvloedt. Daarbij krijgen we vooral inzicht in de rol die de leerkracht, als deel van de basisschool, hierin speelt. Bovenal onthult dit proefschrift de nood aan meer ondersteuning en professionalisering van leerkrachten in studieoriëntering. Vooral van belang hierbij is dat de leerkrachten hun bewustzijn verruimen van de impact van sociale klasse op studiekeuze, op studieadvies en op het oriënteringsproces dat leerlingen en hun ouders doorlopen bij de overgang van basis naar secundair onderwijs.


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Appendices

A1 Scale items

Teachers’ sense of efficacy in educational allocation
[translated from Dutch]

1. I manage to actively involve pupils in formulating an educational advice.
2. I manage to actively involve parents in formulating an educational advice.
3. I manage to recommend an educational option that fits the capacities of the pupil.
4. I manage to recommend an educational option that fits the interests of the pupil.
5. I succeed in formulating an educational advice based on a broad evaluation of my pupils.
6. I succeed in explaining the structure of secondary education to my pupils.
7. I succeed in explaining the structure of secondary education to my pupil’s parents.

School policy on educational allocation
[translated from Dutch]

1. In this school there is a clear policy about educational choice guidance.
2. In this school, a great deal of attention goes to educational career guidance of pupils.
3. All primary teachers of this school are actively involved in educational career guidance.
4. In this school, the policy about educational career guidance is reflected in the classroom practice.
5. In this school, teachers consult each other and cooperate concerning educational career guidance of pupils.
Home-school relationship according to parents
[translated from Dutch]

1. The school is giving us enough information about how our child is doing.
2. The school is giving us enough information about her way of working.
3. The school lets us know what we can do as parents to help our child.
4. We often disagree with the school.
5. We don’t feel welcome at our child’s school.
6. The school listens to us.
7. We as parents have good contacts with the school.
8. We feel actively involved in the school.
9. The teacher of our child is approachable for question and objections.
10. We have a good relationship with the teacher(s) of our child.

Cultural capital of parents
[translated from Dutch]

1. In our family we buy a lot of books.
2. In our family we read a lot of books.
3. Members of our family often go to the library to get some books.
4. Our family is subscribed to journals and/or newspapers.
To whom it may concern

As the first author, I hereby declare that Sarah Thys has the permission to include the following article in her PhD dissertation: “Class composition as a frame of reference for teachers? The influence of class context on teacher recommendations” by Boone, Simon; Thys, Sarah; Van Avermaet, Piet and Van Houtte, Mieke.

Simon Boone
The research project Transbaso was funded by VLAIO (Flemish Agency for Innovation and Enterprise), under grant number 130074. The project proposal was written by Simon Boone & Eva Verstraete, in collaboration with the supervisors of the project: Piet Van Avermaet (project leader), Mieke Van Houtte, Dimokritos Kavadias, Paul Mahieu, Britt Dehertogh, and Christian Van Kerckhove.

The empirical studies were conducted under the coordination and supervision of my supervisor Mieke Van Houtte. Thorough feedback was consistently and elaborately given on first research ideas, questions, drafts and analyses originated by me, and this was the case for each of the four empirical studies. Also, two out of the four studies (study 2 and 4) were conducted in collaboration with other members of the Transbaso team; Simon Boone, Marie Seghers and Piet Van Avermaet. In study 2, I worked together with Simon Boone. Roughly speaking, Simon Boone was mainly responsible for the theoretical framework, while I was responsible for the methodological framework and the quantitative analyses, although we consistently consulted each other on both of these aspects. The supervisors involved for this study (Mieke Van Houtte & Piet Van Avermaet), provided feedback during this entire process. In study 4, I worked with Marie Seghers to include a mixed method study. The manuscript is the result of our initial ideas, analyses and texts going back and forth between us. As first author, I took the lead (e.g. writing a first draft, submitting the manuscript) but the collaboration was reciprocal and consistent throughout the entire process of writing the article. Quantitative data were analysed primarily by me, while qualitative data were primarily analysed by Marie. Our supervisors, Mieke Van Houtte & Piet Van Avermaet again provided feedback throughout the entire process. Overall, I would say that these collaborations resulted in a synergy of scientific expertise, in which each of the writers (Simon Boone, Marie Seghers and I) had an equivalent share, and in which the supervisors (Mieke Van Houtte and Piet Van Avermaet) took up the role of critical learning mentors, substantially improving initial drafts up till a point of convergence.
Sarah Thys obtained her Master in Sociology in 2013 at Ghent University. Since the beginning of 2014 she has been working within the research group Cultural Diversity: Opportunities & Socialisation (CuDOS). Her interest in education is not only apparent in the topic of this dissertation, but also in the fact that she obtained her certificate of pedagogical competence in 2017 at CVO Kisp.