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The transition to post-secondary vocational education: students' entrance, experiences, and attainment

Elffers, L.

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Chapter 2

Great Expectations! Students' Educational Attitudes upon the Transition to Post-Secondary Vocational Education*

ABSTRACT

In this study, we examine students' educational attitudes upon the transition to Dutch senior vocational education (SVE), a transition associated with high dropout rates in the first year. Prior studies have identified differences in educational attitudes between sociodemographic groups. However, the mechanisms underlying those differences remain topic of debate: some studies point at differences in the school orientation and support in students' social communities outside school, others focus on differences in educational experiences between sociodemographic groups. Multilevel sequential regression analyses on a diverse sample of 1438 students in urban SVE schools reveal that students have very positive educational attitudes upon their transition to SVE. Ethnic minority students express particularly positive attitudes. School-related encouragement and support at home plays an important role in students' attitudes, but the attitudes of students from lower educated or ethnic minority communities are less related to this support. Prior school experiences play an essential, but occasionally counterproductive, role in students' attitudes upon transition, depicting the transition as a fresh new start for some, and an unwelcome threshold for others.

* This chapter is based on:

Elffers, L. & Oort, F.J. (*under review*) – Great Expectations: the Role of Students' Social and Academic Context in their Educational Attitudes upon the Transition to Post-Secondary Vocational Education

INTRODUCTION

Educational transitions form a difficult hurdle for many students (Alexander, Entwisle, & Kabbani, 2001). Dropout rates typically increase in the first year after a transition (Dutch Education Inspectorate, 2002; Tinto, 1993). In many Western countries, dropout rates are socially and ethnically patterned: students from lower socioeconomic backgrounds drop out more often, as do students with lower educated parents, and ethnic minority students (Alexander et al., 2001; Dutch Ministry of Education Culture and Science, 2009; OECD, 2006). Whereas a transition can offer a welcome opportunity to make a new start, transitions are difficult for all youth, as students need to integrate into a new social and academic environment (Alexander et al., 2001; Langenkamp, 2010; Tinto, 1993). Students from disadvantaged backgrounds in particular may encounter difficulties when making a transition (Roderick, 1993).

Studies from various strands of research point towards the critical role of students' educational attitudes for their school careers. The attitudes with which students enter a new institution have been found to play a decisive role in their attainment after the transition (Bers & Smith, 1991; Hausmann, Schofield, & Woods, 2007; Tinto, 1993). Several studies report differences in the educational attitudes between sociodemographic groups, most prominently between ethnic groups. However, the nature of those differences remains topic of debate. While Fordham and Ogbu (1986) founded their renowned 'acting White' thesis on reports of oppositional attitudes towards school among Afro-American students, a growing number of studies indicates that the educational attitudes among ethnic minority students resemble the attitudes of majority students, or are more positive (Alexander, Entwisle, & Bedinger, 1994; Downey, Ainsworth, & Qian, 2009; Kao & Tienda, 1998; Khattab, 2003; Mickelson, 1990; Van der Veen & Peetsma, 2006). Differences in how educational attitudes are defined, and at what stage in students' academic careers they are measured, may account for the contradictions in those findings (Downey et al., 2009; Mickelson, 1990; Tyson, 2002). A range of explanations is offered to account for the differences in educational attitudes between sociodemographic groups. Whereas some studies attribute those differences primarily to sociocultural differences, and particularly to the educational attitudes prevailing in students' social communities (Davies & Kandel, 1981; Fordham & Ogbu, 1986; McCarron & Inkelas, 2006; McMillan & Reed, 1994; Ryan, 2000; Steinberg, Dornbusch, & Brown, 1992; Wentzel, 1998; Wigfield, Eccles, & Rodriguez, 1998), other studies suggest that they are mainly related to differences in students' educational experiences, and in the extent to which students evaluate their attitudes in light of those experiences (Alexander et al., 1994; Eccles, 1983; Eccleston, Smyth, & Lopoo, 2010; Hossler & Stage, 1992; Tinto, 1993; Tyson, 2002).

In this study, we look into the educational attitudes of students upon the transition to post-secondary vocational education in the Netherlands, a transition associated with high dropout rates in the subsequent first year. Dutch schools for senior vocational education (SVE), especially those in urban areas, serve a diverse population of students aged 16+, with a substantial proportion of students from lower socioeconomic and ethnic minority backgrounds. As students transferring to SVE have spent at least 12 years in school, their educational attitudes carry the traces of long-range experiences in education. Thus, the context of the transition to SVE offers excellent opportunity to study sociodemographic patterns, and the role of multiple social and academic factors, in students' educational attitudes. In this article, we capitalize on this opportunity by studying the following two research questions:

- To what extent do the educational attitudes of students upon the transition to Dutch senior vocational education relate to (1) their sociodemographic characteristics, (2) the school orientation and support in their home environment, and (3) characteristics of their academic pathway and school experiences?
- How do these factors interact in their relationship to students' educational attitudes?

THEORETICAL BACKGROUND

Defining educational attitudes

In previous works, the term 'educational attitudes' has been used to describe various dimensions of students' pro- or anti-school sentiments, their personal educational expectations, and their aspirations. The term is often used to refer to students' general orientation towards school, or the importance that students attach to education for their personal lives or careers (Downey et al., 2009; Mickelson, 1990). Such attitudes can be defined in more and less contextualized ways: students have both context-specific attitudes towards their particular school and degree program (Anderman & Kaplan, 2008), as well as a more universal orientation towards education or their role as a student (Anderman & Freeman, 2004). Of the various dimensions of students' educational attitudes, their educational expectations appear to be one of the most powerful predictors of academic achievement (Downey et al., 2009). Those expectations can take the form of more abstract, or idealistic, aspirations about the educational level that students hope to attain in their lives, or of more concrete, or short-term, expectations and goals, for instance regarding the completion of a class or degree program (Buchmann & Dalton, 2002; Deil-Amen & Lopez Turley, 2007; Mickelson, 1990; Teachman & Paasch, 1998). The various dimensions of students' educational

attitudes may overlap and affect each other, and are often studied together (Deil-Amen & Lopez Turley, 2007). The term 'educational attitudes' serves as an umbrella for those various dimensions, and we will use this umbrella term accordingly when referring to all four dimensions of students' educational attitudes that we included in our study: students' expected fit with the new school (expected institutional fit), their expected fit with the new degree program (expected academic fit), their aspirations with respect to the program they have enrolled in (educational aspirations) and their attitudes towards education in general (general educational attitudes).

Sociodemographic differences in students' educational attitudes

Educational attitudes relate to educational attainment: if students report high aspirations, optimistic expectations, and positive feelings towards their education, they are more likely to succeed in school (Ekstrom, Goertz, Pollack, & Rock, 1986; Maehr & Meyer, 1997; McMillan & Reed, 1994; Morgan, 2005; Rumberger, 1995; Schoon, 2008; Sewell & Shah, 1968; Tinto, 1993). School dropouts generally report less positive school attitudes (Ekstrom et al., 1986). As students from lower socioeconomic and ethnic minority backgrounds drop out more often, we may expect that those students report more negative attitudes towards school. While some studies indeed found more negative educational attitudes among those groups of students (Fordham & Ogbu, 1986), other studies revealed an inverse pattern: students from lower socioeconomic and immigrant backgrounds generally report more positive attitudes towards their education (Alexander et al., 1994; Downey et al., 2009; Van der Veen & Peetsma, 2006). Irrespective of the exact nature of the differences found, scholars point to both the social and academic context to explain differences in the educational attitudes across sociodemographic groups.

The social context

The educational attitudes of close relatives or significant others in students' lives affect students' own attitudes (Davies & Kandel, 1981; Khattab, 2003; Sewell & Shah, 1968). In particular, the influence of parents has been studied extensively in research on educational attitudes. Not only do parents act as "expectancy and value socializers" for their children (Eccles, 1983), their important role as sources of social and practical support and guidance for the educational careers of their children is emphasized in various studies (Alexander et al., 2001; Ekstrom et al., 1986; Hossler & Stage, 1992; Linnenbrink-Garcia & Fredricks, 2008; McCarron & Inkelas, 2006; McMillan & Reed, 1994; Rumberger, 1995; Schoon, 2008; Trusty, 1998). Parental influence on students' attitudes seems to be stronger than peer influence (Davies & Kandel, 1981). Yet, peer attitudes can shape students' educational attitudes considerably (Chang & Le, 2005; Ryan, 2000; Steinberg et al.,

1992), especially among adolescent students (Cotterell, 2007; Davies & Kandel, 1981; Wentzel, 1998; Wigfield et al., 1998). Differences in the school orientation and support for students' school careers in their community may account for differences in their attitudes. While most parents have high expectations of their children's academic careers regardless of the family's socioeconomic status (Khattab, 2005), socioeconomically disadvantaged communities, especially recent immigrant communities, may attach additional value to education as a means to pursue upward social mobility (Rothon, Arephin, Klineberg, Cattell, & Stansfeld, 2010). However, there seems to be more incongruity between the emotional and practical support provided by parents in disadvantaged communities (Alexander et al., 1994). Families with higher socioeconomic status have better knowledge of the educational system, and better access to human and financial resources, to not only support their children's educational careers emotionally, but in more practical ways as well (Khattab, 2005). We conceptualize the emotional and practical resources in students' social networks that support their academic career as a school-related dimension of social capital (Stevens, Lupton, Mujtaba, & Feinstein, 2007).

The academic context

The school environment has been found to affect educational attitudes substantially (Eccles, 1983; Goodenow & Grady, 1993; Kao & Tienda, 1998; Khattab, 2005; Maehr & Meyer, 1997). Not only can teachers and classmates influence students' educational attitudes through expressing, directly or indirectly, their personal academic values and expectations, students' experiences in education also shape their attitudes towards their current and future educational pathway (Eccles, 1983; Goodenow & Grady, 1993; Hossler & Stage, 1992; Nichols, 2008; Tinto, 1993). Students have been encouraged or discouraged by prior interactions with teachers and classmates before entering a new school (Finn, 1993), and some students make the transition in the course of gradual disengagement from school (Finn, 1993; Rumberger, 1995). Earlier experiences of failure in school can be an important reason for students to enter a new school with less positive attitudes (Tyson, 2002). Students from lower socioeconomic or ethnic minority backgrounds generally encounter more academic or behavioral difficulties in their school careers (Alexander et al., 1994; Finn, 1993; Finn & Rock, 1997), and have been found to report lower levels of emotional engagement in school (Marks, 2000; Voelkl, 1995). Such experiences could press down students' optimism about the next step in their educational careers. Thus, students' academic pathway can play an important role in shaping their educational attitudes upon the transition to a new school.

The case of the transition to Dutch post-secondary vocational education

Dutch senior vocational education (SVE) is the senior continuation of the vocational track in secondary education. The vocational track offers degree programs with an explicit vocational orientation and strong ties to the labor market. SVE programs in engineering, health & social care, economics, and agriculture are offered at four levels: assistant level (1), basic vocational level (2), full professional level (3), and specialist level (4), with program durations from one year (level 1) to four years (level 4). The Dutch post-secondary school system allows for moving up to subsequent degrees: graduation at one level in SVE enables students to continue at the next level, a level 4 SVE diploma gives access to higher professional education, which in turn can lead to access to university. The educational attitudes of students in school systems like the Dutch system, which sorts students into different educational trajectories at an early age, have been found to be more determined by the type of school they attend than in more comprehensive school systems (Buchmann & Dalton, 2002). Students may experience a stigma of attending the lower track, perceiving that they are less worthy and need to lower their future aspirations (Arum & Shavit, 1995; Khattab, 2005). However, while SVE programs are primarily intended to prepare students for a direct transfer to the labor market after graduation, many SVE students aspire to move on to higher levels of post-secondary education instead, and numerous students indeed do so. In contrast, other students may transfer to SVE with the desire to leave school as soon as the legal obligation to attend school ends at their 18th birthday. Yet, irrespective of their personal goals, the transition to SVE is a major step for all students. They leave their familiar, and usually smaller, school behind, and need to integrate into a new institutional environment, which may cause both anxiety and excitement.

METHODS

Sample

We conducted our study with a sample of 1438 first year students in senior vocational education in the Netherlands. From the total number of 40 SVE school boards in the Netherlands, 10 boards were invited for participation in the study, based on (1) their urban setting, to assure sociodemographic diversity of the sample, and (2) the range of degree programs offered, to enable data collection in various degree programs and levels within one school board. The five school boards that agreed to participate represent the initial selection satisfactorily. Within each school board, first year classes were selected from the three main vocational sectors (engineering, economics, and health and social care) at all four SVE degree levels. Classes were selected during the summer break, before student

enrollments were finalized, and before students were assigned to individual classes. A total of 61 classes participated in the study, with an average class size of 24 students. Participation in the study was voluntary for all students. As questionnaires were completed in a classroom setting under supervision of a teacher, in practice all students in a class completed a questionnaire, and we received no reports of students not willing to participate. Hence, it is unlikely that specific groups of students are over- or underrepresented in our study. This is confirmed by the descriptive statistics in table 1 below, which correspond to available statistics of vocational education and urban schools in the Netherlands (Dutch Ministry of Education Culture and Science, 2010; Dutch Ministry of Health Welfare and Sport, 2010; Knowledge Centre for Vocational Training and Labour Market, 2010; Kuhry, 1998; Scientific Council for Government Policy, 2008).

Questionnaire

A new self-report questionnaire was developed to suit the specific level and nature of SVE and its students. The questionnaire has been subjected to a pilot study before being finalized. Its psychometric properties have been assessed through reliability analyses and principle component analyses. Cronbach's alpha's were satisfactory to good. All variables had a 5-point Likert-type scale (strongly disagree to strongly agree), except for the items on students' sociodemographic background and characteristics of their new school and program (school board, sector, level).

Outcome variables

We defined four outcome variables to measure students' attitudes upon transition. Two measures assessed students' expected fit with their new educational environment: *expected institutional fit* (e.g. I think I will feel at home at this school, 3 items, $\alpha=.87$), referring to students' expected fit with the institution in general, and *expected academic fit* (e.g. I think this degree program suits me well, 7 items, $\alpha=.80$), referring to students' expected fit with the specific vocational program and sector. The variable *educational aspirations* (e.g. I really wish to graduate from this degree program, 3 items, $\alpha=.74$) reflects students' ambitions with respect to the degree program they have enrolled in. *General educational attitudes* (e.g. I think it is important to go to school, 7 items, $\alpha=.80$) refers to students' general valuing of education as a means to pursue their career goals.

Table 1:
descriptives of a sample of 1438 students entering Dutch senior vocational education

Characteristics	%
Gender	
Female	53
Male	47
Ethnic identity	
Native Dutch background	51
Moroccan background	15
Turkish background	12
Surinamese background	9
Antillean background	3
Other ethnic background	10
Age	
16-17 years	58
18-19 years	30
Older than 19 years	12
Job status parents	
Both parents have a job	49
One parent has a job	22
Both parents have no job	14
Student doesn't know	15
Highest education parents	
Primary education or similar	9
Secondary education or similar	12
SVE or similar	20
Higher education or similar	19
Student doesn't know	40
Financial problems in family	
	18
School board	
Board 1 – intermediate urban area	30
Board 2 – intermediate urban area	10
Board 3 – highly urbanized area	20
Board 4 – highly urbanized area	19
Board 5 – highly urbanized area	21
SVE sector	
Economics	34
Engineering	29
Health & social care	37
SVE degree program level	
Level 1	14
Level 2	32
Level 3	23
Level 4	31
Prior education	
PVE with diploma	62
PVE without diploma	6
SVE with diploma	10
SVE without diploma	9
Other	13

Explanatory variables

We distinguished three groups of explanatory variables: sociodemographic background characteristics, social context variables, and academic context variables. As indicators of students' sociodemographic background, we used measures of students' ethnic and socioeconomic background. The ethnic background measure was based on self-report by the student of his/her ethnic identity. As indicators of students' socioeconomic background, we included student statements about their parents' job status, highest educational level of the parents, and financial circumstances at home. Moreover, we took into account students' birth year and gender.

The social context variables comprised reports on students' school-related social capital: the amount of encouragement and support regarding their school careers that students receive from their parents (e.g. My parents/guardians think it is important that I finish school, and I can talk to my parents/guardians about my school experiences, 5 items, $\alpha=.67$), peers (e.g. My friends think it is important to finish school, and My friends and I talk about school matters, 4 items, $\alpha=.68$), and their community in general (e.g. Outside school, there are enough people with whom I can discuss school matters, and Outside school, there are enough people who can help me with my school work, 2 items, $\alpha=.73$).

The academic context variables included the educational program that the student was enrolled in prior to entering SVE, with additional information on whether the student graduated in that program or not, the vocational sector that the student was about to enter at the moment of measurement (engineering, economics, health & social care), the school board (3 school boards in highly urbanized areas, and 2 school boards in intermediate urban areas), and the level of the degree program (level 1 to 4). Moreover, students' prior school experiences were measured using four scales: *prior emotional engagement* (e.g. I felt at home at my previous school, 3 items, $\alpha=.88$), *prior academic engagement* (e.g. I worked hard at my previous school, 6 items, $\alpha=.77$), *prior contact with classmates* (e.g. I had many friends at my previous school, 5 items, $\alpha=.81$), and *prior contact with teachers* (e.g. I had good relations with my teachers at my previous school, 6 items, $\alpha=.87$).

Data collection

Data were collected in the first week of the academic year 2008/9, at the moment students entered SVE. This planning prevented students' reported educational attitudes upon transition from being colored by actual experiences in their new school environment. Students filled in a questionnaire in the classroom under supervision of their teacher. All teachers were informed about the purpose of the study, and received an instructional handout. Students could hand in their questionnaire in a blank envelope. A short introductory statement about the

purpose of the study was printed on the questionnaire, as well as a short privacy statement in which we stated not to report on any identifiable personal data.

Statistical analysis

Data were screened for meeting the assumptions of regression analyses. As missing values were limited and missing at random, we applied the expectation maximization algorithm to impute missing values (SPSS Inc., 2010). The intra-class correlation coefficient (ICC) indicated that a substantial part of the variance could be attributed to between-class differences, with ICC's ranging from .04 to .10. Therefore, we conducted multilevel regression analyses, with class and student included as two separate levels (Snijders & Bosker, 1999). To facilitate the interpretation of the coefficients, we standardized variables to zero mean and unity variance. We conducted sequential regression analyses. First, we fitted a model which included students' sociodemographic characteristics only (Model 1). Then, we added the social context variables (Model 2). Third, we added the academic context variables (Model 3). In addition, we checked for first order interactions of all sociodemographic student characteristics with the social and academic context variables, by adding each interaction as a fixed variable to the third model one by one.

RESULTS

Table 2 shows the results of the multilevel sequential regression analyses. Our data indicate that, on average, students transiting to SVE have positive attitudes towards their education, with especially high aspirations ($M=4.47$ on a scale from 1 to 5, with 5 signifying the most positive score, $SD=.51$). A model that only includes sociodemographic characteristics explains small proportions of variance for students' expected fit ($R^2=.02$ for both expected institutional fit and expected academic fit) and aspirations ($R^2=.04$), and slightly more for their general attitudes ($R^2=.11$). Including the social context variables increases the amount of explained variance of all four outcome variables substantially ($R^2=.11$ to $R^2=.22$), and adding academic context measures increases the proportion of explained variance even more ($R^2=.15$ to $R^2=.29$).

Sociodemographic patterns in students' educational attitudes

Ethnic minority students report significantly more positive aspirations and general attitudes than Dutch majority students. There is no significant difference for students with an Antillean background, but this exception may be caused by their smaller representation in our sample. Students with an ethnic background other than the largest five ethnic groups (native Dutch, Moroccan, Turkish, Surinamese,

Table 2: multilevel regressions of students' attitudes upon the transition to SVE, on sociodemographic characteristics, social context and academic context

	Expected institutional fit ICC = .05 mean ^a = 3.76 SD = .66			Expected academic fit ICC = .09 mean ^a = 3.87 SD = .56			Educational aspirations ICC = .04 mean ^a = 4.47 SD = .51			General educational attitudes ICC = .10 mean ^a = 3.79 SD = .68		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
SOCIODEMOGRAPHIC CHARACTERISTICS												
Year of birth	-.02 (.03)	-.07** (.03)	-.05 (.03)	-.10*** (.03)	-.15*** (.03)	-.14*** (.03)	-.06* (.03)	-.11*** (.03)	-.07* (.03)	-.01 (.03)	-.06* (.03)	-.08** (.03)
Male (vs. female)	-.06 (.06)	.05 (.06)	.01 (.07)	-.14* (.07)	-.05 (.06)	-.14* (.07)	-.15* (.06)	-.06 (.06)	-.07 (.07)	-.25*** (.06)	-.12* (.06)	-.09 (.07)
Ethnic identity (vs. native Dutch)												
<i>Moroccan background</i>	.23* (.09)	.15 (.09)	.14 (.08)	.08 (.09)	.05 (.09)	.02 (.09)	.28** (.09)	.27** (.09)	.16 (.09)	.44*** (.09)	.39*** (.08)	.28*** (.08)
<i>Turkish background</i>	.19* (.09)	.16 (.09)	.18* (.09)	.02 (.09)	-.04 (.09)	-.05 (.09)	.39*** (.09)	.35*** (.09)	.25** (.09)	.64*** (.09)	.56*** (.08)	.52*** (.08)
<i>Surinamese background</i>	-.01 (.10)	.00 (.09)	-.01 (.10)	-.02 (.10)	-.01 (.09)	-.07 (.09)	.39*** (.10)	.40*** (.09)	.25** (.10)	.30** (.09)	.30*** (.09)	.17 (.09)
<i>Antillean background</i>	-.27 (.16)	-.14 (.15)	-.15 (.15)	-.23 (.16)	-.10 (.15)	-.16 (.15)	-.01 (.16)	.12 (.15)	.02 (.15)	.14 (.15)	.25 (.14)	.10 (.14)
<i>Other ethnic background</i>	-.18 (.09)	-.12 (.09)	-.14 (.09)	-.30** (.09)	-.23* (.09)	-.26** (.09)	.12 (.09)	.19* (.09)	.09 (.09)	.34*** (.09)	.38*** (.09)	.29*** (.08)
Job status parents (vs. both parents have a job)												
<i>Both parents have no job</i>	-.02 (.09)	-.02 (.09)	.00 (.09)	-.05 (.09)	-.05 (.09)	-.03 (.09)	-.09 (.10)	-.08 (.09)	-.10 (.09)	.19* (.09)	.19* (.09)	.18* (.08)
<i>One parent has a job</i>	-.06 (.07)	-.04 (.07)	-.05 (.07)	-.01 (.07)	.01 (.06)	-.01 (.06)	-.07 (.07)	-.06 (.07)	-.07 (.07)	.04 (.07)	.04 (.06)	.03 (.06)
<i>Student doesn't know</i>	.10 (.09)	.13 (.08)	.14 (.08)	.14 (.09)	.16* (.08)	.18* (.08)	-.04 (.09)	-.02 (.08)	-.03 (.08)	.12 (.08)	.13 (.08)	.12 (.08)

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	Expected institutional fit ICC = .05 mean ^a = 3.76 SD = .66			Expected academic fit ICC = .09 mean ^a = 3.87 SD = .56			Educational aspirations ICC = .04 mean ^a = 4.47 SD = .51			General educational attitudes ICC = .10 mean ^a = 3.79 SD = .68		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Highest education parents (vs. SVE or similar)												
<i>Primary education</i>	-.07 (.11)	.01 (.11)	.05 (.11)	-.07 (.11)	.02 (.11)	.03 (.11)	-.19 (.12)	-.11 (.11)	-.13 (.11)	-.01 (.11)	.08 (.10)	.10 (.10)
<i>Secondary education</i>	.20* (.10)	.21* (.09)	.23* (.09)	.07 (.09)	.09 (.09)	.13 (.09)	-.05 (.10)	-.04 (.09)	-.05 (.09)	.00 (.09)	.04 (.09)	.08 (.08)
<i>Higher education</i>	-.07 (.08)	-.12 (.08)	-.09 (.08)	.01 (.08)	-.04 (.08)	.00 (.08)	.02 (.08)	-.02 (.08)	-.02 (.08)	.10 (.08)	.06 (.07)	.10 (.07)
<i>Student doesn't know</i>	-.08 (.08)	-.06 (.07)	-.03 (.07)	-.01 (.08)	.00 (.07)	.02 (.07)	-.06 (.08)	-.04 (.07)	-.08 (.07)	.00 (.07)	.01 (.07)	.03 (.07)
Financial problems family (vs. no problems)	-.14* (.07)	.01 (.07)	.03 (.07)	-.13 (.07)	.02 (.07)	.05 (.06)	-.13 (.07)	.00 (.07)	.01 (.07)	-.10 (.07)	.04 (.06)	.08 (.06)
SOCIAL CONTEXT												
School-related social capital parents		.19*** (.03)	.18*** (.03)		.21*** (.03)	.19*** (.03)		.18*** (.03)	.15*** (.03)		.21*** (.03)	.17*** (.03)
School-related social capital peers		.12*** (.03)	.10*** (.03)		.11*** (.03)	.08** (.03)		.06* (.03)	.03 (.03)		.21*** (.03)	.18*** (.03)
School-related social capital community		.13*** (.03)	.12*** (.03)		.10*** (.03)	.09** (.03)		.12*** (.03)	.11*** (.03)		.02 (.03)	.01 (.03)
ACADEMIC CONTEXT												
Prior education (vs. PVE with diploma) ^c												
<i>PVE without diploma</i>			.23 (.02)			.26* (.12)			.31* (.12)			.00 (.11)
<i>SVE with diploma</i>			.16 (.09)			-.05 (.09)			.18 (.09)			-.06 (.09)
<i>SVE without diploma</i>			.31*** (.10)			.29** (.09)			.18 (.10)			-.02 (.09)
<i>Other prior education</i>			.09 (.08)			.20* (.08)			.15 (.08)			.16* (.07)
Prior emotional engagement			-.04 (.04)			-.09* (.04)			-.13*** (.04)			-.11** (.03)
Prior academic engagement			.13*** (.03)			.18*** (.03)			.13*** (.04)			.26*** (.03)

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	Expected institutional fit ICC = .05 mean ^a = 3.76 SD = .66			Expected academic fit ICC = .09 mean ^a = 3.87 SD = .56			Educational aspirations ICC = .04 mean ^a = 4.47 SD = .51			General educational attitudes ICC = .10 mean ^a = 3.79 SD = .68		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Prior contact classmates			.04 (.03)			.14*** (.03)			.16*** (.03)			.10*** (.03)
Prior contact teachers			-.02 (.03)			-.04 (.03)			.04 (.04)			-.05 (.03)
SVE school board (vs. board 1 – intermediate urban)												
<i>Board 2 – intermediate urban area</i>			.27* (.11)			.45*** (.13)			.08 (.10)			.03 (.10)
<i>Board 3 – highly urbanized area</i>			-.08 (.10)			.09 (.12)			.16 (.09)			.08 (.09)
<i>Board 4 – highly urbanized area</i>			-.25* (.10)			-.10 (.11)			.15 (.09)			.03 (.09)
<i>Board 5 – highly urbanized area</i>			-.10 (.10)			-.02 (.12)			.17 (.09)			.03 (.09)
SVE sector (vs. health & social care)												
<i>Economics</i>			.11 (.08)			-.21* (.10)			-.06 (.08)			.06 (.07)
<i>Engineering</i>			.03 (.10)			.11 (.11)			-.16 (.10)			-.20* (.09)
SVE degree program level (vs. level 4)												
<i>Level 1</i>			-.13 (.11)			-.19 (.13)			.02 (.10)			.06 (.10)
<i>Level 2</i>			-.23** (.08)			.13 (.10)			.04 (.07)			-.07 (.07)
<i>Level 3</i>			-.13 (.09)			-.18 (.11)			.00 (.08)			-.25** (.08)
Explained variance ^b	R ² =.02	R ² =.14	R ² =.18	R ² =.02	R ² =.13	R ² =.20	R ² =.04	R ² =.11	R ² =.15	R ² =.11	R ² =.22	R ² =.29

Note: n=1438, N=61, *p<.05, **p<.01, ***p<.001. Two-tailed test. Shown: standardized regression coefficients with standard error in parentheses.

Model 1: sociodemographic characteristics.

Model 2: sociodemographic characteristics + social context variables.

Model 3: sociodemographic characteristics + social context variables + academic context variables.

^a Unstandardized mean on a scale from 1 (very negative) to 5 (very positive). ^b Shown: student-level variance. ^c PVE = pre-vocational education, SVE = senior vocational education.

Antillean) have equal or more positive aspirations and general attitudes, but they expect less academic fit. The ethnic background coefficients remain significant after controlling for social and academic context variables in our models. We do not find a significant role of the level of parental education, except for a positive association between having parents who completed secondary education at most and students' expected institutional fit. Students with unemployed parents have more positive general attitudes towards education than students with working parents. Students who don't know if their parents work, which is likely an indication that they are not closely involved with their parents at the moment of measurement, expect a better academic fit. Male students report more negative educational attitudes, but this difference decreases when taking social and academic context variables into account. Financial problems in the family have no significant influence on students' educational attitudes in the models that include social and academic context variables. If we control for students' school-related social capital, we find an effect of year of birth, indicating that younger students have less positive educational attitudes upon transition.

The role of the social context

The encouragement and support of parents, peers and the community plays an important role in students' educational attitudes. Especially parental encouragement and support is strongly related to all four dimensions of students' attitudes upon transition to SVE. Peer support particularly influences students' general attitudes, while peer support is less related to students' aspirations. The coefficients of school-related support from parents, peers and the broader community remain substantial and significant in models with academic context variables added.

The role of the academic context

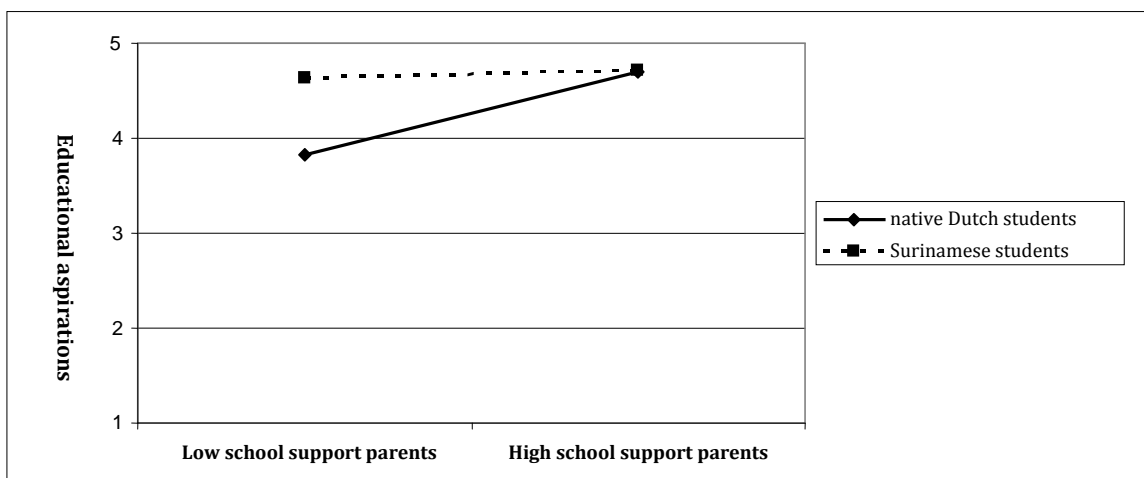
Academic context variables have a significant influence on students' educational attitudes. In particular, students' prior academic engagement, but also their contact with classmates at their former school, associates with their educational attitudes. The perceived connection with teachers in the prior school is of less importance. Prior emotional engagement seems to affect students' educational attitudes negatively. The zero-order correlation between emotional engagement and attitudes is positive, but in a model that also includes other prior school experiences, the effect of prior emotional engagement on educational attitudes turns negative. Emotional engagement is a measure of students' overall perceived fit with the prior school, which may comprise various social and academic aspects of students' prior school experiences, such as the fit with classmates, teachers, or the curriculum. If we control for those specific aspects, a negative correlation between students' prior emotional engagement and their educational attitudes

remains. Students attending schools in highly urbanized areas expect less fit with the institution than students transferring to schools in intermediate urbanized areas. Students enrolling in an economics program are less certain of their academic fit with the program, while engineering students value education in general less. A few differences between students in different degree levels are found for expected institutional fit and general attitudes. Students who enter SVE after dropping out of pre-vocational education are more motivated for their new academic program in SVE, while students who have a second try in SVE are more confident about their fit with the institution and program. Students transferring to SVE from other academic routes expect a better academic fit, and they value education in general more.

Interaction effects

Assessment of first order interactions between sociodemographic characteristics and social and academic context variables revealed two interesting patterns. Above, we reported positive associations with educational attitudes of both an ethnic minority background and the amount of school-related support from parents. However, in Chapter 1 we saw that ethnic minority students report lower levels of school-related support from their parents. Inclusion of interaction effects in our third models showed that the level of parental support plays a smaller role in the attitudes of ethnic minority students than of students with a native Dutch background. An example of this interaction effect is given in Figure 1 for students with a Surinamese background.

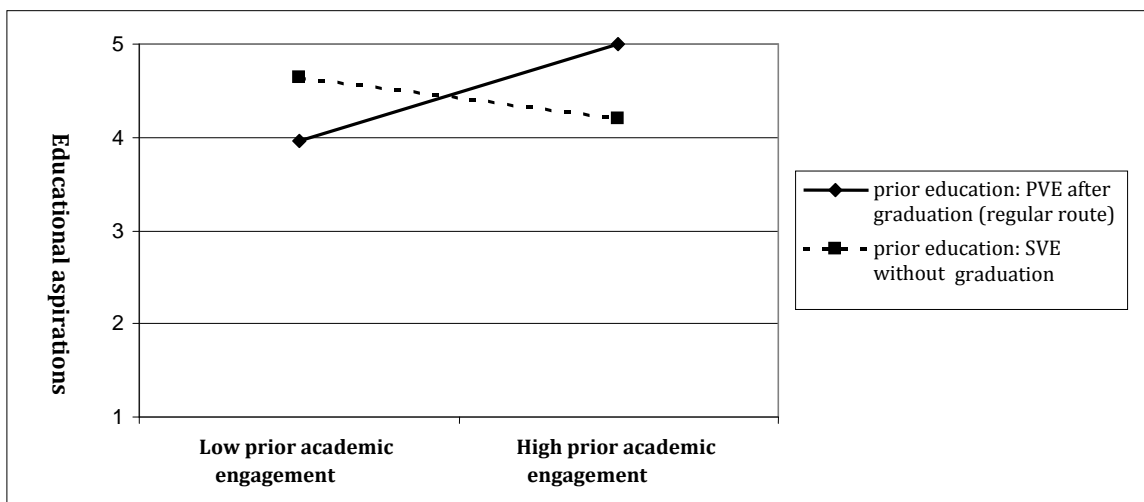
Figure 1:
interaction effect of Surinamese background and school support parents on students' educational aspirations upon transition to SVE.



Note: plot based on 4 theoretical students who score zero on all other predictors

In the group of students with lower levels of parental school-support, Surinamese students report higher educational aspirations than Dutch majority students. Their aspirations are less affected by an increase of parental support than the aspirations of Dutch majority students. We found similar interaction effects of a Surinamese background with parental support on expected academic fit, and of Moroccan and Surinamese backgrounds with community support on expected institutional and academic fit. Moreover, similar patterns were found for the interaction of the educational level of students' parents with the school-related support from parents or the community, and of having financial problems or unemployed parents with parental support. For instance, the aspirations of students from poor families do not seem to benefit from increased parental support as much as the aspirations of students from more affluent families, and the same is true for the expected academic fit of students with unemployed parents or with parents who completed secondary education at most. In all cases, the educational attitudes of those students appear to be less affected by lower levels of support. An interaction effect in the opposite direction can be found among students with higher educated parents: they expect a better academic fit if they report better access to supportive resources in their community.

Figure 2:
interaction effect of *prior education: SVE without graduation and prior academic engagement* on students' educational aspirations upon transition to SVE.



Note: plot based on 4 theoretical students who score zero on all other predictors

PVE = pre-vocational education

SVE = senior vocational education

Figure 2 shows an example of the second pattern of interaction effects that we detected: an interaction effect of students' prior education with their personal experiences in that prior education on their educational attitudes. Whereas we find an overall positive effect of students' prior educational experiences on their educational attitudes upon transition, interactions between students' prior education and their experiences in that prior education indicate a negative relationship in some cases. Students who were earlier enrolled in an SVE program, without graduating from that program, have higher aspirations if they were less academically engaged in the prior program, and have lower aspirations if they were previously more engaged. A similar interaction was found for this particular group with the level of prior emotional engagement and with contact with teachers at the prior school, on their expected institutional fit, aspirations, and general attitudes.

DISCUSSION

Positive educational attitudes upon the transition to post-secondary vocational education are critical for school success after the transition. High dropout rates among particular sociodemographic groups may suggest that students from those groups enter their new school with more negative attitudes. However, this study adds to a growing number of studies that indicate that students from lower socioeconomic backgrounds or ethnic minority groups do not have more negative educational attitudes. On the contrary: while ethnic minority students are overrepresented in SVE dropout statistics in the Netherlands, those students report substantially higher aspirations and more positive general attitudes towards education. The same pattern is found for students from lower educated or poorer families. Thus, our results attest to the high ambitions among students hailing from those particular groups, which likely signifies a pursuit for upward social mobility. Like students with lower educated parents, many ethnic minority students, especially those growing up in first and second generation immigrant families, are often one of the first in their family to make the transition to post-secondary education, which tends to make them highly ambitious (Suárez-Orozco, Rhodes, & Milburn, 2009). Parents in those families are less experienced with the educational system, and may therefore find it difficult to support their children in their school careers (Stevens, Clycq, Timmerman, & Van Houtte, 2009). In Chapter 1, we found that ethnic minority students, students with lower educated parents, and students from poor families, characteristics that are often clustered within the same families, report significantly lower levels of support for their school careers in their social communities. Inevitably, these youth have learned to navigate the educational system by themselves, causing a certain educational independence that can work out both beneficial and detrimental to school success. As students

rely less on the support of relatives or significant others for their school career, they are more autonomous and self-supportive. But this also means that they receive less monitoring, guidance and correction from the people who know them best. This mechanism is illustrated by our finding that, compared to other groups, the educational attitudes of students from lower socioeconomic and ethnic minority communities are less related to the amount of school-related support in their environment. The attitudes of students in those groups remain very positive, regardless of sufficient or limited access to school-related support in their social networks.

Our findings imply that the potential negative effect of limited access to supportive resources on student achievement is not mediated by students' personal educational attitudes. This implication concords with the notion of the attitude-achievement gap, which describes a discrepancy between positive educational attitudes and negative achievement outcomes among disadvantaged students (Alexander et al., 1994; Downey et al., 2009). Furthermore, while lower levels of parental support seem to exert little negative influence over the educational expectations and aspirations of students from lower socioeconomic or ethnic minority communities, those lower levels of parental support may limit students' prospects to fulfill those. Lower educated parents may think they are not capable of supporting their children's school career, simply because they haven't completed many years of schooling themselves. However, our results indicate that it is not the actual educational level of the parents that counts, but the school-related support that they provide to their children. This result confirms Eccles' view that it is not the power of parents as role models that matters, but their role as direct socializers of achievement beliefs and attitudes (Eccles, 1983).

School transitions are critical turning points in students' school careers, and will often be met with both excitement and anxiety. A transition to a new school is no isolated event, but rather an important threshold embedded in students' educational life-course. Whether students perceive a transition as a welcome new start or a disturbing interruption, or perhaps both, depends on their personal educational history. Our findings indicate that students with negative experiences in a previous SVE program are more eager to make a new start. Conversely, students with positive experiences in a previous SVE program, who apparently did not succeed in the program and are required to make a new start, are more cynical about the prospects of their second try. These students may be especially at risk, as they apparently feel discouraged by the failure of the first try. Our findings stress the importance for educators to learn about the educational history of their students. Intake interviews with transferring students can be used to find out

about their prior school experiences, successes and failures, and to check for indicators of progressive disengagement from school.

CONCLUSION

Research on the educational attitudes of students in vocational tracks is scarce. This study contributes to earlier work on students' educational attitudes by expanding the focus to students transferring to post-secondary vocational education in Dutch urban areas. However, because of this specific context, we need to be careful to generalize our findings to other educational settings. Limitations of the current study pertain to the measures used, and the cross-sectional design. First, our data result from students' self-reports. While the information on students' graduation before their transition informs us about their success or failure in their prior school program, no objective measures of prior academic achievement were available to include in our analyses. Prior grades or standardized test scores could be powerful predictors of students' educational attitudes upon transition. Future research could benefit from inclusion of such more objective measures. Second, we used retrospective measures of students' experiences in their previous education that were assessed at the same time as their expectations, aspirations, and attitudes. Such design calls for awareness not to make causal inferences based on our data.

Earlier research on the educational attitudes of disadvantaged students has mainly concentrated on students from socioeconomically marginalized communities. Our study of students in vocational education adds to this perspective by focussing on the educational attitudes of students who may experience academic marginalization, as they do not transfer to higher education after high school. It is often suggested that placement in a vocational track could result in 'cooling out' of academic aspirations and expectations (Alexander, Bozick, & Entwisle, 2008; Arum & Shavit, 1995; Khattab, 2005). However, our study demonstrates that students in the Dutch vocational track do not show signs of cooled attitudes towards education. They start out in senior vocational education with great expectations. The challenge is to help all students turn these great expectations into great achievements.