

Are we doing something wrong?
How schools' policies and practices are related to student dropout.
Bachelorthesis Onderwijskunde
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Group 9

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Abstract

This present study analysed the school policies and practices that seemed to be related to dropout. The purpose of this study was to determine the strongest contributing factors that can explain the risk of students' dropping out from Dutch secondary vocational education schools. A total of 252 students from four different Dutch schools completed a questionnaire about eight different school factors and personal factors. After a confirmatory factor analysis, five of the eight factors remained. In this study only the school factors 'Rule emphasis' and 'SLB' were significant related to students' perceptions, and were the factors that explained the most variance in the data. The factors 'SLB' and 'Rule emphasis' are the factors that contributed the strongest to the risk of students dropping out.

Keywords: dropout, vocational education, school policies and practices

Introduction

According to the European Commission (2015) and De Witte, Lavrijsen, Van Landeghem, Lamote and Van Damme (2013) early school leaving is linked to unemployment, social exclusion and poverty. The EU countries have committed to reduce the average share of early school leavers, aged 18-24 years, to less than 10% in 2020 (European Commission, 2014). Within the EU the Netherlands is the leading country in reducing early school leaving. In 2013, the Netherlands reduced early school leaving to 9,2% while the European average was 12,0% (European Commission, 2014; Ministerie van Onderwijs, Cultuur en Wetenschap, 2015). However, the Dutch Government has set a tighter target of reducing the number to 8,0% in 2020. The secondary vocational education is an important aim in the Dutch Government's policy for reducing early school leaving (Bussemaker, 2013). Approximately 60% of the students are situated in the vocational education track (Meijers, 2008). The students enter primary vocational education at the age of 12 and move on to secondary vocational education at the age of 16 (Meijers, 2008). Students who do not finish secondary vocational education and do not have a higher qualification than primary vocational education are considered as early school leavers (Ministerie van Onderwijs, Cultuur en Wetenschap, 2015). With so many of the Dutch students situated in the secondary vocational education system, it might be the most important target group of the Governmental policy against early school leaving (Bussemaker, 2013).

A lot of research has been done on the subject of early school leaving to define factors that can explain the withdrawal from school (Tanggaard, 2013). Various studies make use of

different measurements for school dropout based on a plurality of differential criteria underlying them (De Witte, Cabus, Thyssen, Groot, & Maassen van den Brink, 2013). For example, dropout can be permanent when students leave the school system without a diploma. Dropout can also be temporary; for example, when students are temporarily not enrolled in school or change track. Dropping out is often forced by a particular event, but only because it occurs in an interplay with other factors. This means that a combination of factors always accounts for withdrawal (Beekhoven & Dekkers, 2005). Therefore, many studies take students background and individual factors as well as structural factors into account to gain insight into which combination of factors contribute to dropout (De Witte et al., 2013).

Most research illustrates two models that provide reasons that explain why students dropout from school (Tanggaard, 2013). The first model consists of individual student factors or background factors like ethnicity, gender or socio-economic status. Student background factors were the main focus of early research on the topic of dropout and have been examined extensively (Tanggaard, 2013). The student background characteristics are found to account for a sizeable amount of 58% of the variance in dropout rates among schools (Rumberger & Palardy, 2005). From the perspective of school leaders, these findings implicate that half of the dropout rates can be attributed to factors that cannot be influenced by the school. There will always be at-risk students that have a higher chance to dropout, based on their individual and background characteristics. However, since the research conducted by Rumberger (1995), the schools' responsibilities for dropout are also taken into account (Tanggaard, 2013; De Witte et al., 2013).

Rumberger (1995) states that dropout rates may be related to the school structure, organization and atmosphere. The second model includes these factors on school and institutional level (Tanggaard, 2013). While school leaders and schools might have little power to influence the structural factors and school resources, such as the mean SES and student-teacher ratio, they do have control over the school policies and practices (Rumberger & Palardy, 2005). The structural and resource factors account for 73% of the variance, when they are added to the model with the student individual background factors, ethnicity, gender and socio-economic status (Rumberger & Palardy, 2005). On the other hand, Rumberger and Palardy (2005) indicate that school policies and practices account for almost 25% of the variability in school dropout, when controlled for the individual and structural and resource factors. Thus,

schools have considerable control with regard to improving dropout rates, by adjusting their school policies and practices.

Different types of school policy factors that contribute to dropout are defined in literature. Research has shown that a well-developed career identity and career competencies from students are protective factors for dropout (Meijers, Kuijpers, & Gundy, 2013). Having conversations with students about career competencies are important to develop career identity and create a higher learning motivation (Meijers et al., 2013). A professional in the workplace during an internship or the teacher of the course can provide students with these conversations to decrease the risk of the student dropping out (Meijers et al., 2013). In addition, the classroom environment, as measured on the Classroom Environment Scale (CES) created by Moos and Trickett (1973), appears to be an important factor. An environment that lacks order and clear rules increases the risk of students dropping out (Fortin, Royer, Potvin, Marcotte, & Yergeau, 2004).

Research on student burn-out proved feelings of inadequacy and cynicism toward the school as predictors for dropout (Salmela-Aro, 2009). School-related cynicism is manifested in an indifferent or a distal attitude toward schoolwork in general, a loss of interest in one's academic work, and not seeing it as meaningful (Salmela-Aro, 2009). Continued research found these burn-out factors to be predictors for dropout, even when controlled for several background factors, as well as a contribution from students' Grade Point Average (GPA) (Bask & Salmela-Aro, 2013).

Schools can reduce the risk of students dropping out through their policies and practices and by enhancing students' engagement in school (Rumberger & Lim, 2008). Finn and Rock (1997) indicate a difference between dropout and non-dropout students in their reported engagement in school. This difference was proved significant on two factors; regularly attending classes and getting into trouble (Finn & Rock, 1997). Early school leavers report that their experience with the educational system is one of the reasons they dropped out (Meeuwisse, Severiens, & Born, 2010). These students dropped out because they were disappointed with the educational content. The educational content did not match their expectations (Meeuwisse et al., 2010).

Student guidance programs that were introduced in Dutch schools intended to reduce dropout rates by prevention and early detection. These programs were initiated in secondary

vocational education, but they tend to disappear a few years after their introduction (Meijers, 2008). Despite the short-term intervention, the results were promising. Students experienced a positive effect and gained self-trust, self-efficacy and insight in their own cognitive weaknesses through rule clarity (Meijers, 2008). Discussions about career opportunities, which provided information and emotional support were proved to be important tasks of mentors (Meijers, 2008). On the level of school organization, mentoring and coaching are effective interventions to reduce the dropout rate (De Witte & Cabus, 2012; Tas et al., 2013). In 2002, the Dutch government provided schools with several regional interventions to be implemented at schools under guidance of their dropout prevention policy (De Witte & Cabus, 2012). When controlled for the factors of student and neighbourhood characteristics, most of the policy interventions did not show significant negative correlations with individual dropout. Only the interventions that are difficult to implement overnight and require a change process showed significant results. One of these interventions is mentoring and coaching (De Witte & Cabus, 2012). Mentoring and coaching is described by De Witte and Cabus (2012) as matching students with a coach from public or private organization. However, Tas and colleagues (2013) indicate that students report having poor communication with the guidance services and some students were not even aware of the guidance services provided by their school. In addition, students think it is unnecessary to talk with a counsellor or mentor: especially when they already decided to dropout (Tas et al., 2013). It is, therefore, important that schools accentuate the function and possibilities of student guidance (Tas et al., 2013).

This study aims to analyse the school policies and practices factors that seem to be related to dropout. In addition, it aims to analyse which of these factors can be influenced by secondary vocational education schools, teams and educators. The purpose is to determine the strongest contributing factors that can explain dropout in the secondary vocational educational track application- and media development. If this is possible, schools can use this information to reduce student's risk of dropping out by adapting their school policies and practices. In this study, the differences between the schools that provide the specific track of interest will also be analysed. This leads to three research questions. The first question is: Are students' perceptions related to schools' policies and practices? The second question is: Which school policies and practices contribute strongest to the dropout risk of students? The third question is: Do these

factors result in significant differences between the secondary vocational education schools that offer the application- and media development track at their schools?

Method

Participants

Four secondary vocational education schools with the application- and media development track voluntarily participated in this study. In total the sample consisted of $n = 252$ first and second year students, who were situated in four different schools. School 1 is located in the south of the Netherlands with $n = 60$ students between the ages of 16 and 39 ($M = 18.60$, $SD = 3.27$). School 2 is located in the east of the Netherlands with $n = 36$ students between the ages of 16 and 26 ($M = 19.81$, $SD = 2.42$). School 3 is also located in the east of the Netherlands with $n = 146$ students between the ages of 16 and 29 ($M = 18.33$, $SD = 1.98$). Finally, school 4 is located in the middle of the Netherlands with $n = 10$ students between the ages of 16 and 24 ($M = 18.60$, $SD = 2.41$). In total, $n = 235$ of the participants were men and $n = 17$ were female. From all the participants, $n = 148$ were students from the secondary vocational educational track application- and media development. The other $n = 104$ students were enrolled in other educational ICT tracks: for example, the track data management. For the pilot test, seven students from a non ICT secondary vocational educational track completed the questionnaire.

Instruments

To investigate which factors result in dropout, a questionnaire consisting of eight factors was constructed. These factors that result in dropout are measured with the factors that are retrieved from other research and are explained in this section of the study. Before the questionnaire was created, four qualitative interviews were held with students who already dropped out. The information that was retrieved during these interviews in combination with the literature on dropout was used to create the questionnaire.

Firstly, the general characteristics of the respondents will be collected. These include gender, age, Grade Point Average (GPA) that will be measured with a 10-point scale. The first pair of questions in the questionnaire ask the students which school they are attending and which educational track they are following. For example: 'Which educational track do you follow?', 'How old are you?' and 'My average school grade is between.' For this specific question, the participants can choose between two pair of grades. For instance, 4-5 or 5-6, et cetera.

Five factors concerning policies and practices were derived from literature. Mentoring activities is one of these factors. It was measured by three items which were inspired by Meijers' (2008) qualitative research. These three items were labelled as 'SLB'; SLB is an abbreviation for the Dutch word mentor. The items were measured with a 5-point Likert scale. An example of an item of the factor 'SLB' is: 'My mentor gives me information about my educational track.'

Meeting students' expectations was measured with two items that were inspired by Meeuwisse, Serveriens and Born (2010). Their questions focused on wrong study choices and uninteresting courses. Furthermore, in the qualitative interviews, which were held during this study, it became clear that students dropped out because the educational content differed from their expectations. The two items that measured students' expectations were labelled as 'Expectations.' These two items were: 'I find the school subjects interesting.' and 'The educational track is very different from what I had imagined.'

Career guidance was measured with two items which were inspired by Meijers and colleagues (2013). Regarding career-oriented guidance, students were asked questions concerning the degree of career dialog that took place at school. Another important aspect of career guidance is career identity, which is defined as the commitment that a person has toward specific occupational activities or a specific career. The two items that measured career guidance were labelled as 'Career guidance.' These two items were: 'My heart is in the work I'm learning to do.' and 'I do not often have conversations at school about my career.'

The last two factors concerning school policies and practices focused on the classroom environment. Three subscales from the original Classroom Environment Scale (CES) as created by Moos and Trickett (1973), were proved to be linked to dropout (Fortin et al., 2004). These were the subscales Rule clarity, Teacher control, and Order and organization. Since the original scale was not available, this study used two factors that were found in a factor analysis on the items of the CES (Trickett & Quinlan, 1979). The factor 'Order and organization' includes most of the items of the original Order and organization subscale (Trickett & Quinlan, 1979). An example of an item from this factor is: 'Teachers must often tell students that they should be quiet.' The factor Rule emphasis was comprised primarily of two items from the original subscales, which were Rule Clarity and Teacher Control. Therefore, for this research, it was assumed that the original subscales lying behind these factors and their relationship to dropout are covered by using the questions that represent the two factors found by Trickett and Quinlan

(1979). An example of an item that measures Rule Clarity is: 'There are clear rules that students have to follow.' Both factors consisted of four items and were divided into two factors instead of one. This means that Rule Clarity was labelled as 'Rule Emphasis' and the other label was 'Order and Organization.'

Three factors considering the perception of students were also derived from literature. One of these factors was cynicism. Cynicism toward school was measured by the subscale Cynicism, which was taken from the School Burnout Inventory by Salmela-Aro, Kiuru, Leskinen and Nurmi (2009). Bask and Salmela-Aro (2012) proved that there is a relationship between the cynicism subscale and dropout. The subscale consisted out of three questions, which were translated into Dutch for this study. These three questions were labelled as 'Cynicism.' One of the items that measures the label 'Cynicism' was: 'I have little motivation to do my homework and often consider to give up.'

Feelings of inadequacy were measured with two items from the School Burnout Inventory, which was proved to be a predictor of dropout (Bask et al., 2013). One of the two items measured by Bask and colleagues (2013) was feelings of inadequacy in schoolwork. For example: 'I have the feeling that I am not able to do my schoolwork properly.' The other item was measured with the statement that a person used to have higher expectations of his or her schoolwork than the person has now. Both of these items were labelled as 'Inadequacy.'

The last factor about students' perception was engagement. Finn and Rock (1997) showed a significant difference in self-reported engagement in school between dropout and non-dropout students on two measures. The factor 'Attend' was measured on the self-report subjects about missing school, being late for school and cutting classes. The factor 'Trouble' was also measured with three self-report subjects about the frequency of getting into fights, getting into trouble for not following rules and parents being contacted about behaviour problems. In this research, both factors will be measured by three items, which were derived from the before mentioned subjects. All of these six items measure engagement. This explains the name of the label for these items: 'Engagement.' An example of an item is: 'How often do you miss a class unauthorized?'

All items in the questionnaire were translated into Dutch and adjusted to the participants of this study. Examples of such an adjustment is the use of appropriate and understandable language.

Design en procedure

The design of the study is a quantitative data gathering that will answer an explanatory research questions. However, the research was preceded by a short explorative qualitative interview, which was used for the construction of the questionnaire. The factors that were found in other research are strengthened by information reported by dropout students from the application and media development track of one of the participating schools that was located in the middle of the Netherlands. Four convenience interviews with male students who withdrew from the application and media development track were conducted. The leading question in the interviews was: ‘How did you go from a student starting the game design and application track to a dropout student?’ A timeline was drafted from high school graduation to the first year of secondary vocational education during the interviews.

The developed questionnaire was used to collect data from the participants and had the form of an online questionnaire. The first- and second-year students at the participating schools were asked to fill in the online questionnaire using their laptops, which they always bring to class. It was expected that there would be a higher response rate since the students had permission to complete the questionnaire during the lesson. Given the fact that all four participating schools completed the questionnaire at different times it was impossible for the author to be there. This is the reason that a video has been recorded and showed to the students as an introduction before the students had to complete the questionnaire. In this video, the author introduced herself and this study. The author also thanked the students for their participation. After watching this introduction video the students completed the questionnaire.

Results

To assess the size and direction of the relationship between the student-items and school-items, a correlation coefficient was calculated. Therefor two new variables were computed; one variable concerns the items about student characteristics, while the other variable addresses the items about school policies and practices. Both variables represent the mean score of 13 items. Prior to calculating r , the assumptions of normality, linearity and homoscedasticity were assessed and found to be violated. Specifically, a visual inspection of the normal Q-Q and detrended Q-Q plots and the Shapiro-Wilk test for every variable, indicated that the ‘StudentItems’ and ‘SchoolItems’ were not normally distributed. Similarly, visually inspecting a scatterplot of each pair of variables indicated that for some relationships the assumptions of linearity and

homoscedasticity were violated. A visual inspection of scatterplots indicated the presence of heteroscedastic relationships among the variables. Because the assumption for the Pearson correlation were violated. Therefore, Spearman's rho is used. Spearman's rho between 'StudentItems' and 'SchoolItems' was positive and weak, $r_s = .224, p < .001$

Cronbach's alpha for 'Cynicism', 'SLB', and 'Engagement' was .828, .724, and .717 respectively and were considered as reliable. The Cronbach's alpha of the factors 'Order and organization', 'Rule emphasis', 'Expectations', 'Inadequacy' and 'Career guidance', were .634, .592, .389, .385 and .041 respectively and were considered unreliable. A confirmatory factor analysis with a fixed number of eight factors was conducted in order to gain more insight in the internal structure of the questionnaire and because there were factors which were unreliable. The results of the confirmatory factor analysis are presented in Table 1. Eight factors (with Eigenvalues exceeding 1) were identified as underlying the 27 item questionnaire, and in total these accounted for 60.39% of the variance in the data. The first five components were interpreted as 'Cynicism', 'SLB', 'Order', 'Engagement' and 'Rule', see Table 1. The remaining three components could not be interpreted in relation to the predesigned factors. With an amount of 10,78%, 'SLB' explained the most variance in the data compared to the other school level factors, see Table 2. Subsequently, 'Order' explained 8,90% of the variance and 'Rule' explained 5,37% of the variance. Following the results of the confirmatory factor analysis a new scale was constructed using the 21 items of the five factors, which were interpretable. Cronbach's alpha for the 21-item 'Sum-score' -scale was .739.

Table 1
Component matrix

Item	Component							
	Cynicism	SLB	Order	Engagement	Rule	6	7	8
Cyn01	,716	-,055	-,357	-,202	-,018	-,088	-,052	,015
Cyn02	,770	-,050	-,209	-,135	,044	-,262	,002	-,163
Cyn03	,689	,090	-,172	-,221	-,039	-,117	,230	-,051
Ina01	,385	-,089	-,494	-,312	,108	,007	-,281	,114
Ina02	,309	,180	-,264	-,257	,113	,219	-,372	-,147
SLB01	,158	,613	-,232	,408	,020	-,019	,003	,087
SLB02	,255	,630	-,207	,334	,055	,060	,029	,152
SLB03	,112	,569	-,242	,362	,149	,006	,099	-,144

Expct01	,405	-,028	,162	,026	-,198	-,426	,162	-,335
Expct02	,462	-,014	-,265	-,168	-,238	-,118	,318	-,112
Car01	,282	-,021	-,354	-,286	,350	,187	-,182	,043
Car02	,110	,568	-,216	,384	,134	-,094	,050	,035
Eng01	,453	-,495	,030	,440	-,014	-,129	-,277	,083
Eng02	,331	-,420	,172	,288	,029	-,269	-,071	,260
Eng03	,520	-,473	,020	,455	-,027	-,096	-,224	,138
Eng04	,322	-,296	-,084	,024	,003	,576	,314	,110
Eng05	,437	-,269	-,028	,351	,090	,240	,260	-,188
Eng06	,217	-,440	-,176	,156	,126	,382	,376	,077
Ord01	,237	,284	,384	-,137	,546	-,018	,173	,019
Ord02	,459	,170	,455	-,185	-,031	,031	,113	-,209
Ord03	,211	,047	,488	-,193	,203	-,262	,301	,307
Ord04	,359	,093	,445	-,077	,461	,023	-,081	,271
Rule01	,349	,237	,297	-,087	-,411	,304	-,073	,192
Rule02	,429	,236	,421	-,013	-,232	,217	-,197	-,089
Rule03	,316	,168	,361	,138	-,340	,232	-,097	-,159
Rule04	,371	,351	,079	-,168	-,371	-,005	-,073	,445
Rule05	,247	-,015	,449	,117	,325	,149	-,310	-,376

Note. Factor loadings > .40 are in boldface.

Table 2

Eigenvalue and Percentage Explained Variance of the Factors

Factor	Eigenvalue	% of Variance Explained
Cynicism	4,368	16,179
SLB	2,856	10,577
Order	2,402	8,897
Engagement	1,735	6,427
Rule emphasis	1,440	5,371

To estimate the proportion of variance in the student-factors that can be accounted for by school-factors, a standard multiple regression analysis (MRA) for the two student-factors was performed. This is based on the five factors that were found in de factor analysis.

Prior to interpreting the results of the MRA, several assumptions were evaluated. First, stem-and-leaf plots and boxplots indicated that the assumption of normality was only not violated for the factor ‘SLB’ and the other factors had either right-skewness or left-skewness.

Furthermore, the boxplot showed outliers for ‘Cynicism’, ‘SLB’ and ‘Engagement.’ Since the other assumptions were not violated, it was chosen to ignore the outliers and non-normality. Second, inspection of the normal probability plot of standardised residuals predicted values indicated that the assumptions of normality, linearity and homoscedasticity of residuals were not violated. This applies to the regression of ‘Cynicism’ as well as for the regression of ‘Engagement.’ Third, the maximum Mahalanobis distance did not exceed the critical χ^2 for $df = 3$ (at $\alpha = .001$) of 16.266 for any cases in the data file. This indicates that multivariate outliers were not of concern for both regression models. Fourth, relatively high tolerances for both predictors in the regression model indicated that relatively high tolerances, of between .8 and .9, for all three predictors in both regression models indicated that multicollinearity would not interfere with the ability to interpret the outcome of the MRA.

In combination, the three school-factors ‘Order and organization’, ‘Rule emphasis’ and ‘SLB’ accounted for a significant 10.4% of the variability in ‘Cynicism’ and they accounted for a non-significant 3.8% variability in ‘Engagement’, which are presented in Table 3.

Unstandardized (B) and standardised (β) regression coefficients for each predictor in the two separate regression models are reported in Table 3. It is important to note that ‘Order’ cannot account for unique variance in either ‘Cynicism’ or ‘Engagement’ because it is a non-significant predictor. The only significant predictor for ‘Cynicism’ is ‘Rule Emphasis.’ The only significant, but negative, predictor for Engagement is ‘SLB.’

Table 3

Results of a Regression Analysis predicting Cynicism and Engagement from School-level Predictors

Predictor	Dependent variable					
	Cynicism			Engagement		
	B	SE B	β	B	SE B	β
Constant	,937	,331		1,884	,225	
Order	,048	,066	,067	,019	,045	,039
Rule	,182	,075	,225*	,043	,051	,080
SLB	,133	,080	,134	-,124	,055	-,190*

Note. $R^2 = .104$ for Cynicism ($p = .001$). $R^2 = .038$ for Engagement ($p = .130$). * $p < .05$

A one-way between groups analysis of variance (ANOVA) was used to investigate the impact that ‘School’ had on ‘Sum-score.’ Therefore, 148 participants from the educational track

application- and media development were selected from the dataset. These participants were divided over four schools, school 1 n = 60, school 2 n = 36, school 3 n = 42, school 4 n = 10.

Inspection of the skewness, kurtosis and Shapiro-Wilk statistics indicated that the assumption of normality was not violated for three of the four conditions. Specifically, the Shapiro-Wilk test for the condition school 2 is significant, indicating that this group of data is not normally distributed. Levene’s statistic was non-significant, $F(3, 144) = .937$, and thus the assumption of homogeneity of variance was not violated.

The ANOVA was statistically significant, indicating that ‘School’ had an effect on ‘Sum-score’, $F(3, 144) = 9.817$, $p < .001$, $\eta^2 = .170$. Post hoc analyses with Tukey’s HSD (using an α of .05) revealed that school 2 scored significantly lower than the other three schools. Mean differences and effect sizes can be found in Table 4.

Table 4

Tukey’s HSD Post hoc tests on the relation between school and ‘Sum-score’

(I) School	(J) School	MD (I-J)	SE	p	d
1	2	9,178*	2,478	,002	0,766
	3	-5,040	2,364	,148	
	4	-1,883	4,014	,966	
2	1	-9,178*	2,478	,002	-0,766
	3	-14,218*	2,669	,000	-1,277
	4	-11,061*	4,201	,046	-0,984
3	1	5,040	2,364	,148	
	2	14,218*	2,669	,000	1,277
	4	3,157	4,135	,871	
4	1	1,883	4,014	,966	
	2	11,061*	4,201	,046	0,984
	3	-3,157	4,135	,871	

Discussion

Previous research showed that school policies and practices accounted for almost 25% of the variance in school dropout (Rumburger & Palardy, 2005). This study investigated which factors can explain dropout in the secondary vocational educational track application- and media development. Previous research on reasons for students’ to dropout from school has indicated several possible reasons. The reasons that were used in this study were divided into eight factors.

Five of these factors were about school policies and practices and three of them were about students' expectations.

The first research question in this study was: Are students' perceptions related to schools' policies and practices? A confirmatory factor analysis revealed that five of the eight factors were interpretable. These five factors were used to answer the research question. The results from the Spearman correlation indicated that there was a weak correlation between 'StudentsItems' and 'SchoolItems.' This means that, school policies and practices are important, but they cannot completely predict the students' attitudes toward school. The results of the multiple regression analysis showed that the three school-factors 'Order and organization', 'Rule emphasis' and 'SLB' accounted for a significant 10.4% of the variance in the personal factor 'Cynicism.' The only significant predictor for the personal factor 'Cynicism' was 'Rule Emphasis.' The three school factors accounted for a non-significant 3.8% of the variance in the personal factor 'Engagement.' The significant predictor for the personal factor 'Engagement' was 'SLB.' This leads to the conclusion that school factors can significantly explain 10.4% of the variance in 'Cynicism' and non-significant 3.8% in 'Engagement.' This percentage does not correspond with the findings of Rumberger and Palardy (2005), who claims that school policies and practices account for almost 25% of the variance in school dropout. In this study only the school factors 'Rule emphasis' and 'SLB' are significantly related to students' perceptions.

This study was also interested in a second research question: Which school policies and practices contribute strongest to the dropout risk of students? The result of the confirmatory factor analysis revealed that the factor 'SLB' explained 10.78% of the variance in the data. The factor 'Order and organization' explained 8.90% of the variance and the factor 'Rule emphasis' explained 5.37% of the variance in the data. The two factors that contributed the strongest to the risk of students dropping out were 'SLB' and 'Order and organization.' De Witte & Cabus (2012) indicated in their research that mentoring and coaching are effective interventions to reduce the dropout rate. This corresponds with the findings in this study, that the factor 'SLB' explains most of the variance in the data. Tas and colleagues (2013) indicated in their study that it is important for schools to emphasize on the possibilities and awareness of students' guidance. The fact that the factor 'Order and organization' explains 8.90% of the variance corresponds with the findings of Fortin and colleagues (2004). Fortin and colleagues (2004) indicated in their study that an environment that lacks order increases the dropout risk.

The third research question in this study was: Do these school policies and practices result in significant differences between the secondary vocational education schools that offer the application- and media development track at their schools? There are significant differences between the four schools that participated in this study. School 2 scored significantly lower than school 1 on the 'Sum-score.' School 2 also scored lower than school 3 and school 4. It was not possible to obtain the actual dropout rates from the four participating schools. Without these numbers it is hard to say if the differences that were found in this study are related to the actual dropout rate of these four schools.

The present study has several limitations. First, data was collected on four different secondary vocational education schools in the Netherlands. Three of the four schools have a traditional form of education. School 2 is a school that uses a new form of education where students decide in which order they perform their learning tasks and teachers offer help when they need it. The fact that school 2 has a complete different way of teaching than the other three schools makes it difficult to compare the four schools. This can also be an explanation for the fact that only school 2 scores significantly different on the 'Sum-score.'

A second limitation relates to the factors 'Expectations', 'Inadequacy' and 'Career guidance.' All three of these factors had two items, instead of the other five factors that all had three items or more. All eight factors that were used in this study were conducted from previous research. In this previous research the factors 'Expectations', 'Inadequacy' and 'Career guidance' only had two example items. The other items that other researches had used were not found during the literature study. It is recommended for further research to obtain the original questionnaires from previous research and obtain all the items that can measure the factors 'Expectations', 'Inadequacy' and 'Career guidance.'

A third limitation of this study is related to the multiple regression analysis. One of the assumptions of the multiple regression analysis is the assumption of normality. This assumption of normality was violated in this study. It is recommended to transform all of the items except the items from the factor 'SLB' for further research. This was the only factor that was not skewed in this study.

A fourth and last limitation of this study is related to the dropout rate of the participating four schools. The schools were not able or were not willing to provide their current dropout rate. This is the reason why it is impossible to say if the findings in this study correspond with the

actual dropout rate. It is recommend for further research to obtain the dropout rate from the schools that will participate in similar research.

Finally, the findings presented in this study have practical implications for secondary vocational education. Students emphasize the importance of student guidance and rule clarity in their environment. It would seem important to have clear rules that all students understand and that the rules are handled in the right way. Second, it is important that schools offer student guidance and make sure that the guidance is of good quality. It is also important that schools make sure that students are aware of the possibilities of student guidance. The two of the foremost reasons of why students dropout in this study are the lack of student guidance and rule clarity.

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