

TO TTO OR NOT TO TTO

A CASE STUDY IN A DUTCH SECONDARY SCHOOL

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Abstract

Bilingual education in Dutch schools (called the TTO program) needs a certain amount of students to be viable. In this research, the authors undertake a survey in a Dutch secondary school to understand how to communicate the value of the bilingual program in order to enhance the number of enrolments. They compared the attitude of pupils and parents, those attending the TTO and those not, in order to understand how they appreciate the different characteristics of the program. Authors focused on the perceived value (understood in terms of perceived benefits, costs and risks) of the TTO program as shown by pupils and their parents who choose for it, in comparison with the intended value of the program as conceived by the TTO staff of the school.

Conclusions suggest that overall the TTO program is appreciated as bilingual education. Surprisingly, the authors discovered that improved self-confidence is not considered a positive attribute of the TTO by the school. However, this is the case for pupils and parents. Moreover, TTO pupils consider TTO expensive in comparison with non-TTO pupils.

1. Introduction

Secondary schools in the Netherlands are trying to prepare their learners for an increasingly internationally orientated society. One of the ways to do so is the implementation of bilingual study programs at schools (the program is called TTO, Tweektalig Onderwijs). Moreover, schools can distinguish themselves from other schools by offering a bilingual program. Out of 659 secondary schools in the Netherlands, 123 currently offer bilingual education (European Platform, 2013). At TTO schools, pupils have their classes in English in the lower forms. They get at least 560 hours per year of lessons in subjects such as biology, geography and history. In addition, they receive 280 hours a year of English. The remaining 200 hours are taught in Dutch (European Platform, 2013). In the upper forms, the pupils prepare for the Dutch exam and have additional lessons in the English languages.

There are multiple benefits of TTO education. According to Dessing (2012) pupils enrolled in a TTO program develop a much better command of the English language, they are more challenged, become involved “citizens of the world” and develop a stronger positive self-image. The enrolment in a TTO program does not lead to underperformance in Dutch or in subjects as mathematics or geography that have been taught in English.

TTO covers mainly VWO (Voorbereidend Wetenschappelijk Onderwijs, pre-university secondary education), and in few cases also HAVO (Hoger Algemeen Voortgezet Onderwijs, higher general continued education) or VMBO (Voorbereidend Middelbaar Beroeps Onderwijs, vocational education). Even though TTO programs have become popular, schools are faced with challenges. For example, an aging population in some parts of the Netherlands leads to less pupils enrolling in schools. This may cause a need to raise enrolment levels of pupils in order to keep a viable TTO program. With this in mind, the authors had been invited by a TTO school in the Netherlands to undertake a problem based research project. From hereafter the authors will refer to the school involved in the research as *The Lyceum*.

In this research, the authors intended to investigate the factors that influence the perception of the TTO program at *The Lyceum* among pupils attending the school and their parents. The final aim was to advise the school about the possibilities for improving the communication about the TTO program towards different groups of pupils and their parents. This research can also benefit other institutions, because even though the results are specific to an individual school, the type of questionnaire and our method could be used for a different school. The results could be useful to other schools, since it gives an idea about the perception of TTO by pupils and their parents. Furthermore, this research has a practical relevance to the

European Platform, a Dutch agency that aims to stimulate the internationalization of Dutch secondary education because it illustrates the opinion that TTO pupils, non-TTO pupils and their parents have.

2. Context

The Lyceum has offered the TTO program since 2005. At present, the school has about 200 pupils attending the TTO program. Because of past experiences and future developments, the management of the TTO program formulated an assignment for a practice-based research.

The Lyceum is a school for HAVO/(T)VWO in a small city in the middle of The Netherlands. In 2013, the school had 1249 pupils mainly from the surrounding area. In 2013, staff numbered 287 teachers (214,8 full-time employees) and 183 other employees (122,1 full-time employees). In comparison to the Dutch average, the exam results of the school are average, however, there was a slight underperformance at the VWO level in 2012. There are three more schools that offer pre-university education in the same area as *The Lyceum*.

The Lyceum offers a TTO program with a lot of extracurricular activities such as internships abroad and trips to English speaking countries. The program is aimed at high achievers with a CITO Score (A test in the Netherlands taken in grade 8 of primary school in order to advice about the most appropriate further education for pupil) the participating student could be an image. of 545 or more (J. Stiphout, 2013). Despite the efforts to offer a high quality TTO program, the number of participants is still relatively small at *The Lyceum*. In the present year, there was one class of 30 pupils. Unfortunately, the school has had to refuse students because there have not been enough enrolments to make two classes. As some students drop out during the program, the number of pupils in the higher forms becomes smaller. Teaching smaller groups is more expensive for the school. If groups become too small, the threshold may not be met anymore and the school may be forced to end the program. The school would like to retain as many students as possible in TTO and preferably attract more students to strengthen the program further.

In order to promote the TTO program, the school sends information to primary schools, distributes information at the “open house” in January, organizes a specific evening for people with an interest in TTO and has a subpage about the TTO on the school’s website.

3. Theoretical Framework

To support this research a theoretical framework has been formulated. The choice as to whether to enrol in the TTO program is a very specific concern; there are many different aspects that come in to play. As a matter of fact, it is an example of a “once in a life time” decision that can be considered to be a “trade-off”. We define a trade-off is a situation that involves losing one quality or aspect of something in return for gaining another quality or aspect. Pupils who choose TTO do not choose a regular school career and vice versa. These concepts of choice, perceptions and opportunities all come in to play in the theoretical framework, explained below.

3.1 Research to date on school choice

At the moment in literature there is little knowledge about motives to enrol in TTO and to resign from TTO. There is, however, an academic debate about motives for parents and pupils to enrol in different types of education. The motives to choose for schools may be relevant for a study about choosing a career within a school as well. What follows is a discussion of some of the motives to choose for a school that have been identified by relevant research.

In 2005, Bell researched the reasons and backgrounds that influence parents to select a school or college for their children in the U.S.A. The author found that educational attainment of the parents, family income, available information, and the child’s prior academic record influenced school choice. In other studies (Bell, after David 1994) the motives for the choice were subdivided into three P’s: “the academic results or Performance, the atmosphere/ethos or Pleasant feel; and the school’s location or Proximity to home”.

Bell concluded that parents prefer schools which have better results, are welcoming and inviting, are close to home, match their values, and have high levels of parental involvement both in and out of school. In another article (2009), Bell concluded that schooling markets are often perceived as open, unbiased and fair. This means that parents and pupils have a freedom of choice and are well informed to choose the best school available. Bell concluded that this is not the case: parents are prone to “bounded rationality”. They construct a choice set from where they choose a school: that is, they cannot take all alternatives into account when choosing a school. There are almost invisible and social and historical inequities that constrain the schools parents are willing to consider.

Regarding the discussion about this topic in U.S.A., literature about school choice is often based on what is known as the “trap hypothesis” (Lukas 2008). According to Ben-Porath (2009) children from a low-income household in an urban area, with mostly parents from a minority cultural background, are “trapped” by default in their potential choice of

school. Those children could have better school results if their parents had better access to information about the schools in their surroundings. According to the “trap hypothesis”, school choice is a prominent example of choice based on social policies. Public institutions that are in charge of enabling school choice need to pay close attention to minimizing the cost of information acquisition. According to a liberal theory of the state, an informed citizen can only make the best choice for a school career based on clear information.

Ben-Porath also concluded that the classic “rational choice” axiom does not hold in school choice. The author cited Kahneman and Tversky (1982) to illustrate that choice acts primarily on the basis of intuition and other factors beyond a stricter model of rational calculation. An example to clarify this concept was a study showing that parents believe that if they send their children to suburban schools, they will do better academically.

One of the conclusions of Ben-Porath’s article (2009) is that framing the choice set is a meaningful way to influence the school choice decision. School choice policies should take into account diversity of personal backgrounds, the contexts and the challenges that those present. Parents strive to be rational when making a school choice, but they usually feel that they fail.

In the Netherlands, school choice is not a target of social policy. There is, however, a tendency to make performance indicators of schools available about schools to support parents with the choice of a school. For example, the website *10000scholen.nl* provides information as diverse as exam results, the age structure of the staff, the percentage of employees employed in non-teaching jobs and the dropout rate of the school.

According to Konings and van der Wiel (2010) “the Netherlands presents an interesting setting to study the direct effect of information on school choice. It is a densely populated country, so that within a ten kilometre radius a child can reach on average 11 relevant secondary schools. Negligible school fees, good public transport, and more importantly, unrestricted free school choice furthermore ensure that school choice reflects preferences more strongly than in countries with school catchment areas and heterogeneity in school fees.” In their research they investigated the relation between quality assessment of schools by a Dutch newspaper (*Trouw*) and school choice. They found that its quality score affects the probability of attending a school. This is especially true for the pre-university education, although the choice is still driven mainly by the distance between the school and home address. Based on an analysis of the school choice of 23,923 pupils, Konings and van der Wiel (2010) found that pupils are willing to travel 220 meters more in order to attend a well-performing rather than an average school. They did not find differences in information

responses between socio-economic groups. On the contrary, Bell (2005) and Bast (2004) showed that in the United States there is an unequal distribution of information among parents of different socio-economic groups about school choice.

Even though choice sets for school selection in the Netherlands may be more equal than elsewhere, it is still relevant to investigate this topic. Using the concept of bounded rationality as coined by Simon (1955) and also applied by Kahneman (1982), we may assume that school choice (and also the choice to be made for enrolment in a TTO program) is limited by three tree unavoidable constraints (Simon, 1955):

- (1) Only limited, often unreliable, information is available regarding possible alternatives and their consequences;
- (2) The human mind has only limited capacity to evaluate and process the information that is available;
- (3) Only a limited amount of time is available to gather information and make a decision.

Some of these factors may influence the limitations of bounded rationality. Ben-Porath (2009) citing Mcgrath and Kuriloff (1999) explains that higher socio-economic status individuals are more likely to have higher quality education networks. Networks can reduce the cost of information gathering. By making data about available schools and their desirability more accessible, the quality of one's network has an influence on the decision. In the next section, a conceptual model is presented that can be used to apply the insights from school choice theory (based on bounded rationality) as discussed above to the choices made with regard to bilingual education at *The Lyceum*.

3.2 A conceptual model for school choice at The Lyceum

Since this is an exploratory research, there is not an existing and proven conceptual model that we have been able to draw on. According to Routio (2007), the procedure to come to a conceptual model could be described as follows: "Start from what is known. Proceed by enlarging the mapped area, and connect the new intelligence to the known facts." Therefore, the first phase to our research was to undertake the formulation of an effective and relevant conceptual model. For this research, the authors think that the factors influencing school choice may be applicable to choosing a TTO education at *The Lyceum*, albeit this is a rather hypothetical assumption and the conceptual framework has therefore a hypothetical character.

A primary function of a conceptual framework is to map the terrain surrounding the research subject. Each identified concept may represent a specific area about which information is needed. The conceptual framework defines the scope of the research, shows important concepts and places these into a logical structure showing the most important relationships, connections and influences that exist between concepts.

Based on the survey of relevant literature discussed above, it became clear that a decision in the choice of TTO or not is affected by bounded rationality. If we apply the constraints from Simon's model (1995) on the choice for a TTO education, we find the following constraints:

- Pupils and parents may have limited knowledge about TTO education and its benefits. They may not be aware of (all) the benefits that TTO education offers and alternative choices and their consequences.
- Pupils and parents have only limited capacity to evaluate and process the information that is available about TTO. Maybe they were aware that *The Lyceum* offers TTO, but they did not consider this to be an option.
- Only a limited amount of time is available to gather information and make a decision about a school choice. Joining a TTO program is possible at the start of school career, not in the higher grades.

Based on the context and the theoretical framework, the following conceptual model has been designed:

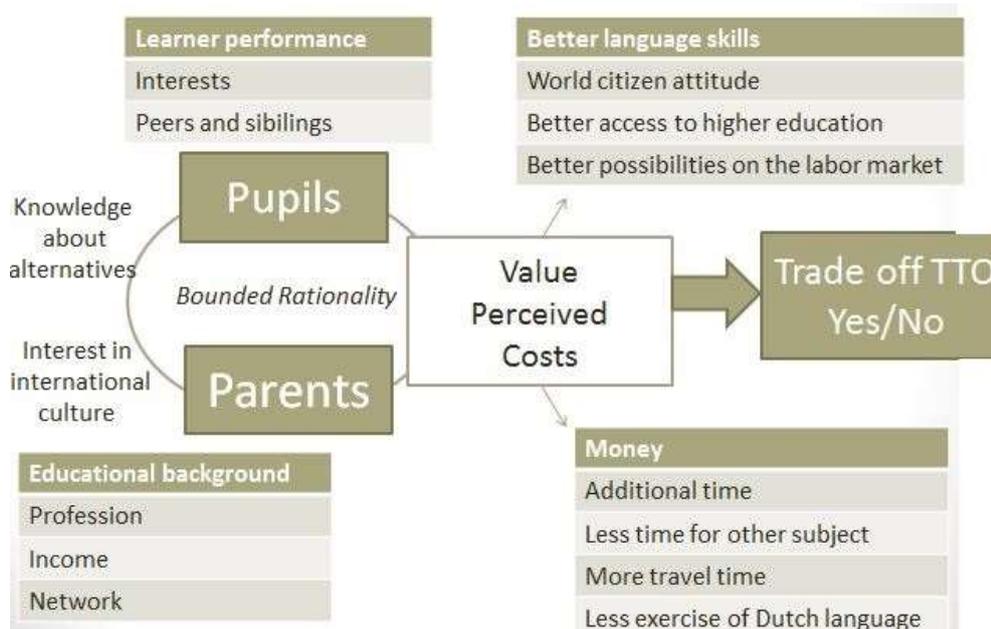


Figure 1: Conceptual model “Choosing TTO education at *The Lyceum*”.

The model can be read as follows: the pupils and parents have characteristics that may influence the choice for a TTO education. The cost of the TTO is about €400, more than regular education. If parents are short of money, they may decide not to take TTO into consideration. For the pupils, meeting the requirements (CITO score of 545 or higher), will be crucial. A second part of the conceptual model is the information available. People with knowledge about international culture, may be more prone to choose TTO. People with good knowledge about the costs and benefits may be more inclined to choose TTO. Here we introduce the two concepts of perceived value and perceived cost. A perception is the way in which something is regarded, understood, or interpreted. This may be based on factual information, but not necessarily. To give an example: parents may think that TTO education is harmful for the command of the Dutch language, although research suggests that this is not the case (Verspoor et al, 2010).

3.3 Research Questions

In this research, the authors aimed to measure the perception of parents and pupils at *The Lyceum* about TTO. The research focused on those pupils who attend TTO, who have attended TTO and who could have attended TTO. As a common denominator, all the students had a CITO score of 545 or higher. The authors compared the perceptions of the parents and the pupils with the intended value of the school and of the focus group.

The main question has been formulated in cooperation with the person in charge of the TTO programme at *The Lyceum*.

Main research question:

What is the perceived value (understood in terms of perceived benefits, costs and risk) of the TTO program at *The Lyceum* as shown by pupils and their parents who choose for it in comparison with the intended value of the program as conceived by the TTO staff of the school?

Sub-questions:

1. What is an effective conceptual model for examining school choice in a bilingual context?
2. What are the background characteristics of the pupils and their parents who choose for TTO at *The Lyceum*?

3. What are the background characteristics of the pupils and their parents who do not choose for TTO at *The Lyceum*?
4. Is the possibility to follow TTO education an important reason to decide for a school career at *The Lyceum*?
5. How do teachers perceive the value and the cost of participating in the TTO program at *The Lyceum*?
6. How do parents and students perceive the value and the cost of participating in the TTO program at *The Lyceum*?
7. Is the perception of the parents and pupils different from the perception as conceived by the TTO teachers at *The Lyceum*?
8. Can the conceptual model (based on bounded rationality) be used in an educational setting?

4. Methodology

Two different approaches have been used. In the first exploratory phase of the research, the authors used an action based research approach. In order to become familiar with the situation at *The Lyceum*, several interviews were held with the coordinator of the TTO program. Moreover, as suggested by literature, a “Focus Group” session was organized with several teachers of the TTO program. A “focus group” is defined by Powell (1996) as a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research. It may enable researchers to draw upon the attitude of respondent’s attitudes, feelings, beliefs, experiences and reactions that may not be available with other methods. Furthermore, “Focus Groups” are useful in particular when there are power differences between participants and decision-makers or professionals, when the everyday use of language and culture of particular groups is of interest, and when one wants to explore the degree of consensus on a given topic (Gibbs 1997; Morgan, 1997).

In our research, the outcomes of the panel session (discussed in the results section below) were firstly used to enrich the background information of the research project, secondly, to help tailor the conceptual model (see the conceptual model above) and thirdly, to receive input for the second phase of the research.

In the second phase of the research, the authors developed a questionnaire for the different target groups, which was sent out to be completed online in February 2014.

The questionnaires completed allowed the authors to gather data about perception among the following groups:

- Pupils who participated in the TTO program but stopped participating
- Pupils who still participate in the TTO program
- Parents of pupils who participated in the program but stopped participating
- Parents of pupils who participate in the TTO program
- Pupils who did not participate in the TTO but have the capacities (e.g. CITO score) (Reference group)
- Parents of pupils who did not participate in the TTO program but who have the capacities (Reference group)

The authors aimed to get 30 questionnaires for every subgroup and to process the data with the statistics program (SPSS) using parametric and non-parametric statistics.

5. Variables and Hypotheses

Based on the theoretical framework, the conceptual model and the research questions the following hypotheses were formulated:

1. Parents with a higher educational background are more positive about TTO education.
2. Parents with a background in technical studies are more positive about TTO education.
3. Students with parents with higher incomes have higher participation rates in TTO.
4. There is a significant difference in the participation in the TTO program of pupils attending different primary schools.
5. TTO students travel bigger distances to school than non-TTO students
6. TTO students are more likely linked to non-Dutch culture
7. Pupils who think that TTO education is at the expense of other subjects are less inclined to attend the TTO program

After testing the hypotheses with parametric and non-parametric tests, the research gave conclusions about the difference in perceptions among the different target groups. Based on these conclusions, recommendations will be given to *The Lyceum* about what to communicate about the TTO program. The following questions will be addressed to give recommendations to *The Lyceum*:

- *What to communicate with different groups of students about the TTO program*
- *What to communicate with different groups of parents about the added value of the TTO program*

6. Data and Results

6.1 Phase One

6.1.1 Data Collection

The data collection started with a focus group with the TTO-teachers of *The Lyceum*. The first phase occurred at the school, where two of the authors interviewed four TTO teachers. One of the authors asked the prepared questions, whereas the other took detailed notes. Afterwards, these were formally written up in a summary with all the important information. With the main research question in mind, the authors let the teachers speak freely in answering the questions. Therefore, they considered only the useful information emerged from the interview

6.1.2 Results

Firstly, from the Theoretical Framework discussed above and the outcomes of the panel session with teachers, the following characteristics of the research elements were considered to be relevant for choosing TTO.

Table 1. Background characteristics of the research elements that may influence the choice to enrol in the TTO program at *The Lyceum*.

	<i>Element</i>	<i>Source</i>
Educational attainment of parents	Parent	Bell, 2005
Technical background of parents	Parent	Teacher <i>The Lyceum</i>
Family Income	Parent	Bell, 2005 and teachers <i>The Lyceum</i>
Social network	Parent	Ben-Porath, 2009
Information about school choice available	Parent/Pupil	Bell, 2005, Ben-Porath 2009
Child's prior academic record	Pupil	Bell 2005
Atmosphere and ethos	School	David, 1994
Distance	Parent	David, 1994 and Konings and van der Wiel (2010)

Performance of the school	School	David, 1994 and Konings and van der Wiel (2010)
Known alternatives	Parent/ Pupil	Bell 2005
Side activities	Pupil	Teachers <i>The Lyceum</i>
International orientation	Parents/pupil	Teachers <i>The Lyceum</i>
Primary school attended	Pupil	Teachers <i>The Lyceum</i>
Cito Score	Pupil	Teachers <i>The Lyceum</i>

Moreover, from the panel session, the authors considered the following answer to the question “What is the benefit of the TTO program?” the most relevant one: “There are many benefits for the pupils to participate in the TTO program. They have a better knowledge of the English language, better prepared for university, and later perhaps international business world or research. They are able to communicate, use to language fluently”. Therefore the authors considered the following intended value of the TTO program as indicated by the teachers:

Table 2. Intended value as explained by the teachers at *The Lyceum*.

1. Better level of English
2. Better access to higher education
3. Better career possibilities
4. Mindset prepared for global citizenship
5. A better challenge in education

Source: Focus group at *The Lyceum*. See appendix, 2013.

6.2 Phase Two

6.2.1 Data Collection

The outcome of the focus group with teachers was used as input for the elaboration of the questionnaires for parents/carers and pupils. The quantitative analysis was done through a web based survey online using Enquetesmaken.com (see appendix). Gathering data with this method has the advantage that data is available at low cost to the researchers and that it is easy to retrieve the data for statistical elaboration. In addition, it also has the benefit for the potential participants because of the easy access and the possibility to fill out the questionnaire at their own convenience. On the other hand, there are a number of

disadvantages as well: 1) relatively high non-response rates compared with traditional modes of data collection; 2) concerns regarding the reliability and validity of the data obtained and 3) reluctance to use Web-based questionnaires because of safety and confidentiality issues. Moreover, if the targeted population might feel involved with the purpose of the survey, the response rate may be higher than usual (van Gelder, 2010). Thus, considering that pupils at *The Lyceum* may be interested to share their experiences, the authors preferred a web-based questionnaire as a feasible way to offer the survey.

Prospective participants were invited to take part in the questionnaire with an email sent out on behalf of the lower grades coordinator of *The Lyceum* on March 28 (see appendix). It appeared that parents and carers participated (they completed 46 questionnaires in the first round) more than the pupils. To bring up the response rate, a different approach was followed. The parents got a reminder email on April 7. This reminder led to an additional 31 questionnaires filled out. To raise the response rate among the pupils, on April 18, the pupils were contacted face-to-face at the school. Four classes, two lower form and two upper form, participated at the survey: in 30-minute sessions students filled out the questionnaire in the computer room. As expected, the youngest students took about 25 minutes to complete all the questions, whereas the others managed in about 15 minutes. Although all the students from each class positively participated to the survey, some of the students not involved in the TTO program, complained about the questions as mainly related to the bilingual program. At the end of the day, about 120 more questionnaires were filled out.

6.2.2 Results

6.2.2.1 Statistical Analysis

In order to compare characteristics and preferences of parents and pupils, they have been subdivided in 4 groups:

- Pupils who are participating in a bilingual program (TTO pupils)
- Pupils who are not participating in a bilingual program (Non TTO pupils)
- Parents of pupils who are participating in a bilingual program (TTO parents)
- Parents of pupils who are not participating in a bilingual program (Non TTO parents)

The sample sizes are as follow according to Table 2:

Table 2. Sample sizes of participants.

Group	1 st grade (N)	5 th grade (N)	Total (N)
TTO Pupils	2	27	29
Non TTO Pupils	60	26	86
TTO parents	13	19	34*
Non TTO parents	22	16	38
Total	97	88	187*

If row or column totals do not match, this is due to partial non-response. For instance, a parent who has children in the bilingual program, but they are not in the 1st or 5th grade.

Unfortunately, some of the subgroups are too small to give a representative picture of characteristics and preferences. This was the case with the pupils who stopped with their TTO education before reaching the 5th grade. (N=6) This is why the choice was made to compare the four main groups as mentioned in the previous table.

6.2.2.2 Data processing

In order to assess if the sample taken represents the whole population of pupils and parents from the 1st and 5th grade of *The Lyceum*, the authors undertook 3 Chi square goodness of fit tests. The Chi Square test is used to determine whether sample data is consistent with a hypothesized distribution (De Vocht 2013). In this research, the Chi square goodness of fit tests were executed for the categorical variables male/female, 1st graders/5th graders (both for pupils and parents) and for TTO / non-TTO pupils. Based on the outcome of this goodness of fit tests, there are no indicators that the sample is not representative. However, precaution should be taken because evaluation questionnaires may attract a certain biased audience (critical or very positive people). The goodness of fit test does not offer possibilities to check for this omission.

6.2.2.3 Quantitative analysis of the results

One of the sub questions added to the main research question was related to the background characteristics of the pupils enrolled in the bilingual program. In the focus group, it had been postulated that parents with a technical background would be more prone to stimulate TTO enrolment. From the literature about school choice in the Netherlands, the hypothesis was derived that pupils who want to take a “high level” education are willing to travel a greater

distance to their school. Moreover, the educational level of the parents was considered to have a strong correlation with the educational attainment of their children as well.

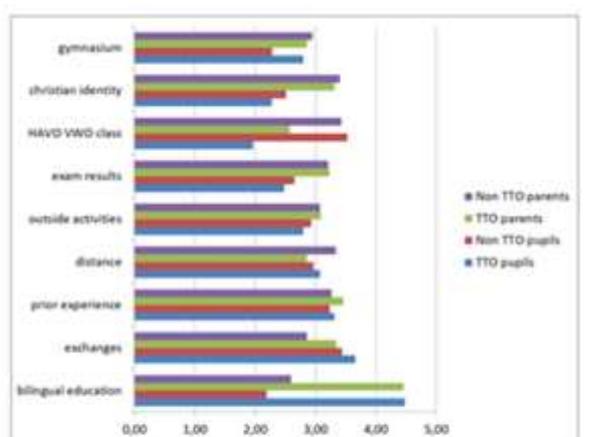
The authors tested the hypothesis to see if there is a difference between the enrolment of pupils in bilingual education with regard to a technical background of the parents (Yes/No) and if the education level of the parents (higher/ or other) is related to the choice for bilingual education.

From table 3 it may appear that children from higher educated parents have a higher propensity to enrol in bilingual education. However, the Chi square goodness of fit tests executed ($\alpha=0,05$) did not show a statistical significant relation between the education level of the parents and enrolment in bilingual education of their kids (Cramer's $V = 0,1999$). There was no correlation between parents having a technical profession and enrolment in bilingual education.

Table 3. Educational background of TTO and non TTO Pupils.

	TTO	%	Non TTO	%	Total	
Lower and middle educated	13	35,10%	24	64,90%	37	100%
Higher educated	22	55,00%	18	45,00%	40	100%
N =	35		42		77	

Besides the characteristics of the pupils and parents, the survey gathered data on preferences. If we look at the reasons to choose for an education at *The Lyceum*, some differences were found between TTO pupils and non TTO pupils and their parents, as can be seen in Figure 2.



- N TTO pupils = 28, N non TTO pupils = 79, N TTO parents = 54, N Non TTO parents = 28
- Likert scale 1 (Fully disagree) to 5 (Fully Agree)
- All differences in the same category (Pupils, Parents) are significant (T test independent samples, $\alpha=0,05$)

Figure 2. Motives to choose for *The Lyceum*.

Both pupils and parents could indicate on a 5 point Likerd scale if they (completely) agreed or disagreed with reasons to choose for *The Lyceum*. e found the following significant differences between TTO parents and non TTO parents and TTO pupils and non TTO pupils (by means of a student’s T-test on two independent samples, $\alpha = 0,05$).

The following order was found for motives to choose for a school career at *The Lyceum*:

Table 4. Ranks of reasons to choose for *The Lyceum*.

Rank	TTO parents	Non-TTO parents	TTO pupils	Non-TTO pupils
1	preference child	preference child	Bilingual *	HAVO/VWO*
2	Bilingual*	HAVO/VWO*	exchanges and trips abroad	exchanges and trips abroad
3	Priorexperience	christian identity	prior experience	prior experience
4	exchanges and trips* abroad	Distance	Distance	Distance
5	christian identity	Priorexperience	outside activities	outside activities
6	Examresults	Examresults	gymnasium*	exam results
7	Outsideactivities	Outsideactivities	exam results	christian identity
8	Distance	Gymnasium	christian identity	Gymnasium
9	Gymnasium	exchanges and trips abroad	HAVO/VWO	bilingual education
10	HAVO/VWO	bilingual*		

Motives marked with a * are statistically different within the same category (parents or pupils) tested with a student’s t test at a $\alpha=0,05$ confidence interval

Source: Survey at *The Lyceum 2014*, see appendix

As can be seen in Table 4, there are differences between TTO parents and non-TTO parents. Whilst the first group considers the possibility to follow bilingual education the most important reason to choose for *The Lyceum*, the other group considers bilingual education as the least important motive. Between the two groups of pupils, the differences are not so big; with the exception of the joint HAVO-VWO first class that is a high priority for the non-TTO pupils.

From the survey results, it became clear that bilingual education was a strong motive to choose for *The Lyceum* for the TTO parents and the TTO pupils. The TTO parents also

considered the availability of exchanges and foreign trips more important, whereas non-TTO parents added a higher value to the distance to school and the possibility to do a combined HAVO/VWO first year. The TTO pupils considered the possibility to follow bilingual education more important than the non-TTO pupils and the same applied for the possibility to follow Gymnasium education. The non-TTO pupils finally thought the possibility to do a joint HAVO/VWO year more important than the TTO pupils.

The main research question was about the perceived value and perceived cost of a bilingual education. The respondents of the questionnaire could choose for different attributes on a five point Likert scale. The outcomes for the perceived benefits were as shown in Figure 3.

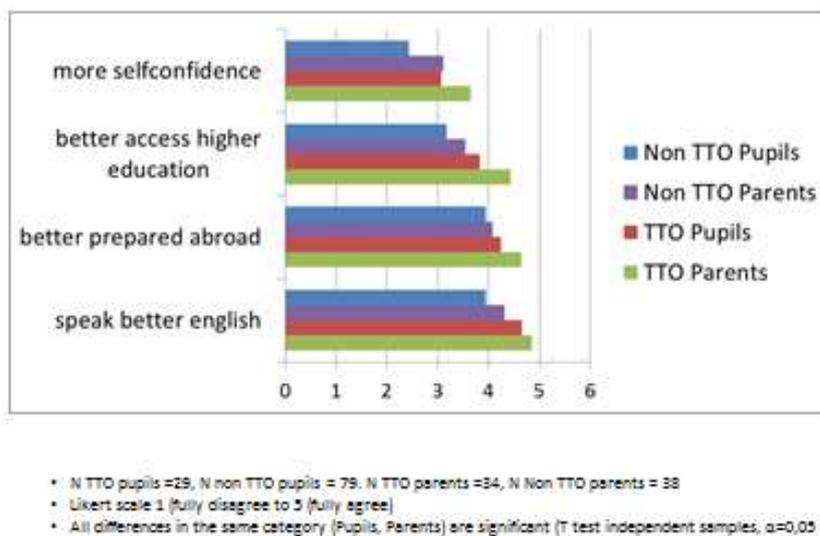


Figure 3. Perceived benefits of bilingual education by pupils and their parents.

Although the four positive attributes of bilingual education were acknowledged by all groups (except for the attribute “A bilingual education leads to more self-confidence” by the non-TTO students), there were significant differences between TTO parents and non-TTO parents and TTO pupils and non-TTO pupils on all four attributes.

If we look at the perceived cost of a bilingual education, we find a few similarities and few differences (see Figure 4)

Non-TTO parents think to a significant higher degree that a bilingual education may be a disadvantage at the Dutch school exam (as these exams are held in Dutch). They also think that side activities such as jobs and hobbies may suffer from bilingual education and that bilingual education may lead to less attention for other subjects at school. The non-TTO pupils think in a significant higher degree that a bilingual program may be a disadvantage at

the Dutch School exam and may lead to less attention for other subjects. The TTO pupils think that the financial cost of a bilingual education is higher than non-TTO pupils think.

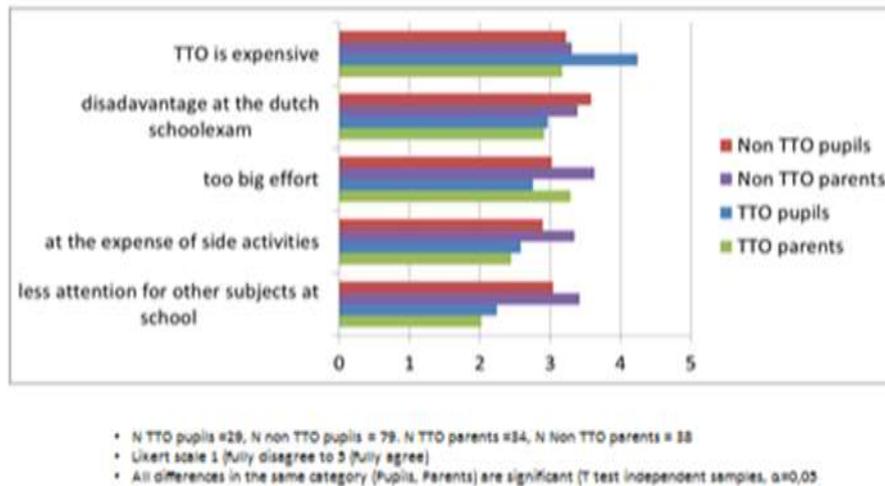


Figure 4. Perceived costs of bilingual education by pupils and their parents.

7. Conclusion and Reflection on the Research Process

There are not so many differences between TTO parents and non-TTO parents and TTO pupils and non-TTO pupils. TTO parents and TTO pupils tend to appreciate the positive aspects of bilingual education more. Non-TTO parents and non-TTO pupils tend to consider the negative attributes of a bilingual education higher, with the exception of the financial cost of a bilingual education. TTO parents and TTO pupils consider the possibility to follow bilingual education a more important factor to choose for *The Lyceum* than non-TTO parents and non-TTO pupils. The non-TTO parents and non-TTO pupils consider distance to the school and the possibility to follow a joint HAVO/VWO class more important than TTO parents and TTO pupils. In the next paragraph, we will answer the research questions and try to give recommendations based on the data analysis.

The authors decided not to test hypothesis number 6 because the data rendered by respondents were not consistent.

Regarding the main questions, authors concluded that the intended value as expressed by the school during the panel session was: pupils have a better knowledge of the English language, pupils are better prepared for higher education, and they are better prepared for international business and research. These positive attributes were also recognized by all four reference groups. There is one positive attribute that was not mentioned by the TTO staff and

that is prevalent among the parents and TTO pupils: bilingual education may lead to more self-confidence among pupils.

Regarding the background characteristics of pupils and their parents, TTO and non-TTO, although there is a perception that TTO pupils more often have higher educated parents, there is no statistical evidence that this is the case. From the survey, it did not become clear that there is an important difference between the personal characteristics of pupils and parents involved with bilingual education and those who are not involved. There are differences in the motives to choose for *The Lyceum*. Non-TTO parents add more importance to the distance to be travelled to the school and the possibility to follow a joint HAVO/VWO year. TTO parents consider the possibility to follow bilingual education and the availability of foreign exchanges and trips more important than Non TTO parents. The non-TTO pupils also choose for the HAVO/VWO class as a more important motive to choose for *The Lyceum*. The TTO pupils consider the possibility to follow a Gymnasium education and to follow a bilingual education more often important.

Concerning the third sub-question related to whether the possibility to follow TTO education an important reason to decide for a school career at *The Lyceum*, the authors found that this is a reason, the possibility to follow a TTO education is an important reason to choose for a school career at *The Lyceum*. Among parents and pupils, it is black and white: for parents of TTO pupils and TTO pupils, the possibility to follow a bilingual education is (out of 10 motives) the most important reason to choose for *The Lyceum*. For the parents of non-TTO pupils and non-TTO pupils, it is the least important motive to choose for a school career at *The Lyceum*.

For the fourth sub-question about how parents and students perceive the value and the cost of participating in the TTO program at *The Lyceum*, it emerged that in general parents and pupils appreciate the positive attributes of bilingual education. TTO pupils and their parents have a higher esteem for the positive attributes. Non-TTO pupils and their parents think on average that the costs of a bilingual education are higher, with the exception of the financial cost which is considered.

Regarding the sub-question related to the differences in perception of the parents and pupils in comparison with the TTO teachers, it was found that the positive attributes mentioned by the TTO teachers at *The Lyceum* are shared by the parents and pupils. The positive attribute “bilingual education gives self-confidence” was not mentioned by the teachers, but is recognized by TTO pupils, parents of TTO pupils and parents of non-TTO pupils.

For the last sub-question about the use of the conceptual model based on bounded rationality in an educational setting, the authors concluded that generally this research used a Likert scale approach about a decision that has been taken in the past. This approach may involve subjective answers, as people may change their idea about a decision throughout the time. As “hard” data based on personal characteristics (distance, gender, education level) did not lead to differences between subgroups, we may consider the behavioural approach a valuable addition. In the survey it became clear that there are differences between the subgroups based on perceptions (Figure 5).

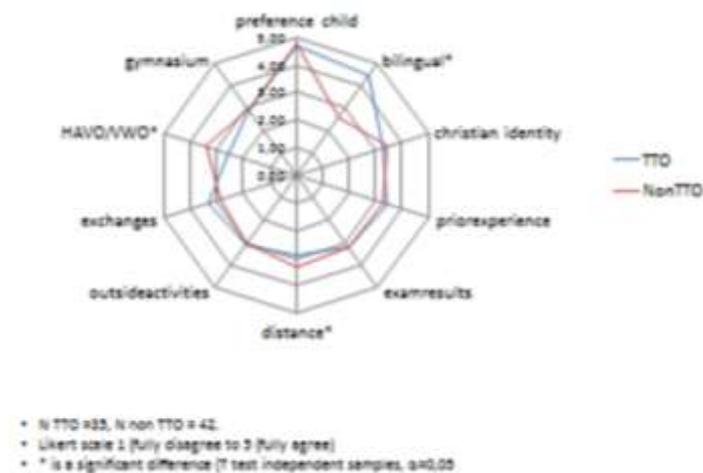


Figure 5. Reasons to chose for *The Lyceum*.

Parts of the conceptual model were applicable to the research about *The Lyceum*. Firstly, the perceived cost in terms of less time for other subjects, money, and less practice of the Dutch language for the final exams came out as attributes taken into consideration by parents and pupils. Secondly, the perceived value was considered important, such as better language skills and better access to higher education. Thirdly, other aspects of the conceptual model did not lead to differences between the groups researched. The same is true for the background characteristics of both the pupils and parents. There was no significant difference between groups related to profession, income or educational background to be found.

Reflecting on the research process the authors would like to share their experiences for future researchers. Firstly, it is important to be aware of the fact that school choice is a complex decision process and includes various stakeholders. Constant monitoring of the preferences of these stakeholders can be a valuable source to adapt the educational offer at the school and keep enrolment at the desired level. Secondly, a longitudinal research could bring additional insights about the perceived value of bilingual education, as it enables to follow

different cohorts of pupils and their perception throughout the time. Thirdly, parents can be approached through a web-based questionnaire; however, pupils should be approached face-to-face. Lastly, parents are hesitant to provide personal information in an online questionnaire sent out by the school. In general, it is important to plan when the questionnaires are sent out in order to avoid selective responses.

8. Recommendations

Based on this research we make the following recommendations to *The Lyceum*:

- People who do not take TTO are negative about TTO because they fear that the pupils will do badly at the Dutch exams and there is less attention for other subjects. The school should show them that this is not the case: it is a general misconception.
- Two different approaches about giving information about TTO can be developed. We identify two different prospective audiences:
 - o Group who have TTO in mind
 - o Group who knows TTO is there but are not considering it as an option
- The fact that TTO pupils feel more confident about their studies should be emphasized more in information about the TTO
- Explain to the TTO pupils why they have to pay and what they are getting from it

9. Relevance and limitations

This research is mainly based on the TTO program at *The Lyceum*. Even though the outcomes may be relevant for other TTO schools as well, the conclusions may not be generalized, as every school has different characteristics (location, connectivity, and neighborhood) that may influence enrolment.

Perceptions may change with time, people may forget about relevant arguments for decisions. Due to the limited time available and other obligations, we have decided to use a cross sectional study at one point in time.

The value of the research will also highly depend on the sampling techniques and the response rates. Especially with online questionnaires it will be important to make a good non-response analysis in order to avoid over or under representation.

Our personal interest in this research is to develop ourselves as *teachers beyond the classroom*. We aim to understand and be involved in the process of policy making at bilingual

schools. This will enrich our knowledge and experience as international and bilingual educators.

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