

This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Roiha, Anssi; Salonen, Elise; Salminen, Jenna; Kivimäki, Riia; Laakkonen, Eero

Title: "I Have More Courage Now" : Students' Perceptions of Content Learning and the Development of Their English Self-Concept during the Pre-DP Year

Year: 2024

Version: Published version

Copyright: © 2024 the Authors

Rights: CC BY 4.0

Rights url: <https://creativecommons.org/licenses/by/4.0/>

Please cite the original version:

Roiha, A., Salonen, E., Salminen, J., Kivimäki, R., & Laakkonen, E. (2024). "I Have More Courage Now" : Students' Perceptions of Content Learning and the Development of Their English Self-Concept during the Pre-DP Year. *Education Sciences*, 14(11), Article 1147.
<https://doi.org/10.3390/educsci14111147>

Article

“I Have More Courage Now”: Students’ Perceptions of Content Learning and the Development of Their English Self-Concept During the Pre-DP Year

Anssi Roiha ^{1,*}, Elise Salonen ², Jenna Salminen ², Riia Kivimäki ² and Eero Laakkonen ²¹ Faculty of Education and Psychology, University of Jyväskylä, 40014 Jyväskylä, Finland² Faculty of Education, University of Turku, 20014 Turku, Finland; etsalo@utu.fi (E.S.); jmjsal@utu.fi (J.S.); riheino@utu.fi (R.K.); eerlaa@utu.fi (E.L.)

* Correspondence: anssi.s.roiha@jyu.fi

Abstract: This study investigates students’ (n = 30) experiences of the pre-Diploma Programme (pre-DP) year in Finland. We examined how the students perceived the impact of English-medium teaching on their content learning, how their English self-concept had evolved during the year and what factors had contributed to this. The data were collected by initial and follow-up questionnaires and semi-structured interviews. The students’ content learning had become easier during the year. In addition, the students had a relatively strong English self-concept already when entering the pre-DP and it had further strengthened during the year. Oral skills were the area that the students highlighted as having improved the most. Becoming used to using English and peer influence were cited as the main factors contributing to this. The study provides important preliminary insights into students’ experiences of learning through a foreign language in the pre-DP year in relation to content learning and English self-concept.

Keywords: international baccalaureate; pre-DP year; content learning; English language self-concept; Finland



Citation: Roiha, A.; Salonen, E.; Salminen, J.; Kivimäki, R.; Laakkonen, E. “I Have More Courage Now”: Students’ Perceptions of Content Learning and the Development of Their English Self-Concept During the Pre-DP Year. *Educ. Sci.* **2024**, *14*, 1147. <https://doi.org/10.3390/educsci14111147>

Academic Editor: Lawrence Jun Zhang

Received: 13 August 2024

Revised: 12 October 2024

Accepted: 16 October 2024

Published: 23 October 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

The International Baccalaureate (IB), founded in 1968, is a non-profit organisation developed to provide standardised, international education that aims to advocate intercultural understanding and respect [1]. The IB offers four types of educational programmes to students aged from 3 to 19: the Primary Years programme, the Middle Years Programme, the Diploma Programme and the Career-related Programme. There are over 5000 schools in the world offering IB programmes, with millions of students in 159 countries. In Finland there are 19 IB schools, 16 of which offer the Diploma Programme for students aged 16–19 [2]. The IB Diploma Programme is an academically challenging two-year course that prepares the students for university. Students choose six subjects to study, and at least three of these subjects must be taken as higher level (HL) courses which explore the subject in more depth than the standard level (SL) courses. These subjects need to be chosen from a set of subject groups, which include an A-language and a foreign language.

For the purposes of this study, one of the constitutive features of the programme is the language of instruction. The IB offers three possible operating languages for the programme depending on the location of the school. In Finland, the language of instruction is English, which means that almost all communication and teaching is in English. All subjects apart from some of the language courses are taught entirely in English. In Finland, as in many other Nordic countries, the Diploma Programme is preceded by a pre-DP year to fit the three-year upper secondary school model. During the pre-DP year, students study essentially according to the national syllabus but conduct their studies in English. The pre-DP year thus also serves to accustom the students to studying in a foreign language.

The target school of this study is a state-funded school that offers the Finnish national curriculum as well as the IB programme. The IB programme at the school consists of two streams: the international and national stream. In the international stream, the students often come from international backgrounds and may be in Finland temporarily; for instance, due to their parents' employment. Students in the national stream, which is the focus of this study, have usually completed their basic education in Finnish schools according to the national Finnish curriculum and most of them speak either Finnish or Swedish as their native language. Apart from courses in their native language, the two groups of students complete their studies together. In this school, students are admitted on the basis of their final marks in basic education, in combination with an entrance exam in three subjects: the student's L1 (Finnish or Swedish), English and mathematics. This means that the students tend to have a relatively good proficiency in English even before starting their studies in the IB. However, to many of them, the mode of studying in a foreign language is new. In this longitudinal study, we are interested in examining how they experience the pre-DP year in terms of their content learning and English self-concept. The specific research questions addressed in this study are the following:

How do participants (n = 30) perceive the impact of English-medium teaching on content learning in different subjects?

How does the participants' English self-concept evolve during the pre-DP year?

What factors influence the development of the participants' English self-concept?

2. Content Learning in English-Medium Education

Although the topic has not been exhaustively studied, IB students have been found to perform well academically and therefore excel in learning the content [3]. Many studies, however, have failed to control important variables such as the students' prior academic achievement or socioeconomic background. Only a few studies to date have had a more rigorous research setting. In a study by Green and Vignoles [4], in which many potentially influencing factors were controlled, previous IB students outperformed their counterparts at university. As a limitation, however, this study also did not control for students' prior academic ability, which may have affected the results. Saavedra's [5] study, in turn, controlled for students' prior academic achievement and socioeconomic background and found that the Diploma Programme improved students' academic performance. The Diploma Programme increased students' chances of graduating from high school by 20 per cent. Moreover, the students scored better in externally assessed aptitude tests. It is noteworthy, that many of the students in the study came from low-income families which gives further support to the potential of the Diploma Programme.

The assumption that students typically learn content well even when studying in a language foreign to them is also supported by immersion and CLIL (Content and Language Integrated Learning) contexts. Lazaruk's [6] review showed that, overall, immersion education has had a neutral or slightly positive effect on students' content learning. Most studies have measured the learning of mathematics, science and history. Lazaruk [6] suggests that bilingualism is associated with heightened mental flexibility and creative thinking skills, which may partly explain the positive effects of immersion on students' content learning. Similar results have been obtained in corresponding CLIL studies [7]. Particularly, the learning of mathematics has been better for CLIL students compared to their non-CLIL peers. Science learning, on the other hand, has shown more mixed results. Students themselves have likewise considered that the CLIL approach has had a positive effect on their content learning. Despite this general trend, there have been some students who have struggled with content learning and had a more negative attitude towards this education approach [8–10].

3. English Language Self-Concept

3.1. Conceptualising Self-Concept

Self-concept is a psychological construct that represents people's self-perceptions [11]. It is sometimes used interchangeably with self-esteem and self-efficacy although they are separate constructs [12]. Self-esteem is the broadest and most evaluative of the above constructs as it represents one's global self-perceptions [12,13]. Self-efficacy, in turn, is the most specific as it is understood as people's beliefs in their ability to accomplish very context-specific tasks [12]. Self-concept is considered to both overlap with and differ from self-esteem and self-efficacy [12]. Self-concept is perceived as more domain-specific than self-esteem as it includes several specific self-concepts [11] but less task-specific than self-efficacy [12]. In addition, self-concept differs from self-esteem and self-efficacy in that it has both evaluative and cognitive elements, whereas self-esteem is predominantly evaluative and self-efficacy cognitive [12].

According to Shavelson et al. [11], Marsh and Shavelson [14] and Marsh et al. [15], self-concept has a hierarchical structure. That is, it consists of a more stable core and various domain-specific self-concepts that are less stable and more susceptible to change. Markus and Wurf [16] share this view and propose that self-concept is both stable and malleable. They use the term "working self-concept" and define it as "a continually active, shifting array of accessible self-knowledge" [16] (p. 306). Initially, Shavelson et al. [11] divided self-concept into academic and non-academic self-concepts. Academic self-concept includes English, history, math and science self-concepts whereas non-academic self-concept encompasses social, emotional and physical self-concepts. Marsh and Shavelson [14] and Marsh et al. [15] later divided the academic self-concept into math academic self-concept and verbal academic self-concept, one part of which is the foreign language self-concept.

Mercer [12] draws on the above conceptualisations of self-concept and defines the foreign language self-concept as "an individual's self-descriptions of competence and evaluative feelings about themselves as a Foreign Language (FL) learner" [12] (p. 14). According to Mercer [12], foreign language self-concept is not static but a dynamic and situational construct that can oscillate throughout the years. Mercer [12] questions whether a holistic foreign language self-concept is sufficient to understand the complexity of language learning. Similarly, Laine and Pihko [17] separate the foreign language self-concept into global, specific and task levels. The global level refers to a person's beliefs about themselves as a foreign language learner whereas the specific level refers to a person's self-perceptions in a given language. The task-level, in turn, denotes a person's perceptions of their abilities in specific language skills such as speaking or writing. The data of Mercer's [12] study support the need to distinguish between various self-concepts corresponding to a particular foreign language as learners often have distinct self-beliefs about different languages. Similar observations were found in studies by Yeung and Wong [18] as well as by Roiha and Mäntylä [19]. Some studies have even implied that the specific self-concept for each foreign language could be divided into even more microscopic self-concepts within the language such as listening, speaking, reading or writing self-concept [20,21], thus being in line with Laine and Pihko's [17] task-level foreign language self-concept. In this study, we are interested in the participants' perceptions of themselves as English language learners and users. Thus, we approach the data through an English as a foreign language self-concept which can be seen as a subcomponent of the global foreign language self-concept [12,15].

3.2. Factors Influencing Self-Concept

Academic self-concept is believed to be shaped by a number of factors. In Marsh's [22] I/E frame of reference model, the factors affecting academic self-concept are divided into internal and external ones. Both the math and verbal self-concepts are shaped based on internal and external comparisons. In the internal frame of reference, pupils compare their distinct math and verbal self-concepts to each other which reinforces the self-concept that they perceive as stronger. That is, if a pupil thinks of themselves as better at languages than at math, this internal comparison is believed to strengthen their verbal self-concept

regardless of their performance. The external frame of reference relates to pupils comparing their self-concept to that of others which may consequently affect their own self-concept. Another theory of self-concept formation is the reciprocal effects model (REM) [23,24] according to which the academic achievement of pupils and their academic self-concept have a reciprocal relationship and are a mutual cause and effect. That is, positive academic self-concept is believed to have a positive effect on one's achievement and vice versa. Finally, the big-fish-little-pond effect (BFLPE) is also suggested to be important in the formation of one's academic self-concept [25]. The BFLBE model assumes that pupils' academic self-concept is formed in relation to their peers. In a class with more able peers, one is likely to have a weaker academic self-concept compared to a class in which the peers are less able.

With regard to factors affecting one's foreign language self-concept, Mercer [12] has applied the I/E model by Marsh [22] to language learning. Mercer [12] suggests that the internal factors are internal comparisons across subjects, languages and skills as well as beliefs about specific languages and language learning in general. External factors, in turn, consist of social comparisons, feedback from significant others, perceived experiences of success/failure and previous experiences of learning/using languages in a variety of contexts. Pihko [26] proposes that the paramount factor affecting one's self-concept is one's learning experiences. That is, positive learning experiences are likely to result in a positive foreign language self-concept whereas negative ones may lead to a more negative self-concept. According to Pihko [26], also feedback from peers and teachers contribute to the formation of one's foreign language self-concept.

3.3. Previous Studies on Foreign Language Self-Concept

In general, self-concept is a somewhat neglected concept in language learning research, let alone in bilingual education. Lately, however, a few studies have explored L2 self-concept in English Medium Instruction (EMI) contexts at a tertiary level [27–29]. These studies have shown that students' L2 self-concept manifests itself differently among students and that positive L2 self-concept facilitates learning. There are also a few studies on foreign language self-concept in CLIL education. Seikkula-Leino [30] looked at Finnish primary CLIL students' ($n = 116$) and their non-CLIL peers' self-concept in foreign languages. Surprisingly, her study showed that the CLIL students' foreign language self-concept was significantly lower than that of their non-CLIL counterparts. This applied to both their global foreign language self-concept as well as their domain specific foreign language self-concepts (i.e., comprehension, reading, writing and speaking). According to Seikkula-Leino [30], one reason for this could be the fact that CLIL students are often exposed to demanding language in CLIL lessons, which may make them feel incompetent, which has a direct impact on their self-concept in the target language.

Pihko [26] examined the foreign language self-concept of CLIL ($n = 209$) and mainstream students ($n = 181$) in lower secondary school. Contrary to Seikkula-Leino's [30] study, the CLIL students' foreign language self-concept in Pihko's [26] study was higher and more positive than that of their non-CLIL peers in all the measured domains (i.e., reading, speaking, pronunciation, writing, listening, vocabulary and grammar). Pihko [26] suggests that CLIL classes are potential environments for the development of a positive foreign language self-concept, as CLIL students are using the language as a vehicle for meaningful action.

More recently, Rumlich [31] investigated the English as a foreign language self-concept (EFL SC) of 321 CLIL students, their 221 non-CLIL peers in the same school and 134 students who were in a school without a CLIL track. The results showed that the CLIL students' EFL SC increased slightly over the two years, while it remained the same for the students in a school without a CLIL track and decreased slightly for non-CLIL peers in the CLIL school [31]. However, the CLIL students' EFL SC was higher already at the outset of the study, which according to Rumlich [31] may explain most of the increase during the 2-year period.

In their retrospective approach, Roiha and Mäntylä [20] examined the effect of CLIL-education on pupils' English language self-concept from the pupils' (n = 24) perspectives. The vast majority of them felt that their CLIL experience had been instrumental in contributing to their strong and robust English self-concept. The pupils highlighted the early start with English (i.e., age of 7), social comparisons and feedback from significant others as the main factors influencing their English self-concept.

Although foreign language self-concept has been examined in some previous studies on bilingual education (mostly CLIL), at least to our knowledge, it has not been studied in the context of IB. The present study aims to fill this research gap by exploring the English self-concept of students in their pre-DP year.

4. Methods

The data for the present study were collected via questionnaires (initial and follow-up questionnaire) and interviews between the fall of 2021 and the spring of 2022 in a pre-DP English as a foreign language group at an IB school in Finland. The study was committed to complying with the EU's General Data Protection Regulation and the research ethics principles of the university where the researchers worked. The questionnaires were conducted anonymously; only the students' initials were asked to match their original responses to the follow-up responses. Permission to conduct the research was sought from the school where the study was carried out. Moreover, the research group prepared an electronic note that was sent to the students' guardians, who either agreed or refused to permit their child to be included in the study. Participation in the study was voluntary, and respondents could discontinue filling out the questionnaire if they wished.

4.1. Participants

The group that was surveyed consisted of 30 students, aged 15–17, who study English as a foreign language. The initial questionnaire took place when the students had studied in pre-DP for approximately 6 weeks, and the follow-up questionnaire after approximately 7 months of pre-DP studies. Between the questionnaires, three students changed schools and therefore did not participate in the follow-up questionnaire. Out of the 30 students, all spoke only Finnish as their native language except for one native speaker of Somali, one native speaker of Bulgarian, and one student who reported being bilingual in Finnish and English. Four students had previously studied in a CLIL-class or other type of bilingual education.

4.2. Data Collection and Analysis

The questionnaire data were collected in Webropol. The questionnaire items were designed in order to examine how the students perceived the learning of different subjects in pre-DP and how their domain-specific English self-concepts, such as speaking, reading and writing, evolve during the pre-DP year, namely 7 months. In the initial questionnaire, the students were first asked to report what kinds of grades they had received from their previous English studies in lower secondary school. In addition to this, they were asked to describe how challenging, motivating or useful the students considered their English studies in lower secondary school. In order to find out how 7 months of studying in English had affected the students' perceptions of themselves as learners, we asked them to evaluate the impact of studying in English on their learning in mathematics, in natural sciences (e.g., physics, chemistry) and in other humanities subjects (e.g., history, psychology) in both the initial and follow-up questionnaires. For these questions, the students had to choose one of the following options: I did not study the subject, does not affect learning, facilitates learning or makes learning more difficult.

In both the initial and follow-up questionnaires, the students were also asked to rate how good they considered their global English language skills, how well they could write, pronounce or speak English as well as understand speech or written texts in English. The questionnaire also asked for their opinion on how hardworking, fast and motivated learners

they were, including whether they were anxious or enjoyed speaking English. Last, we wanted to find out whether they perceived the tasks given to them in English subject lessons as difficult. Most of the questionnaire items were five-point Likert scale statements: fully disagree (1), disagree (2), neither agree nor disagree (3), agree (4) and fully agree (5). In addition, the questionnaires contained a few open-ended questions in which the participants were able to elaborate on their views regarding the questionnaire statements.

All data collection was conducted in Finnish and the questions were designed to be student-friendly; that is, complex terminology was avoided, reducing the possibility of misinterpretation. The questionnaire was piloted with three students and no changes were made based on their feedback. Both questionnaires, the coding and the analysis were conducted in Finnish. The results were translated into English by the authors. All responses were analysed with IBM SPSS 27. Differences between the initial and follow-up results were analysed using paired samples *t*-test followed with effect size evaluation using Cohen's *d* [32].

The interviews were conducted at the end of the pre-DP year; that is, in the spring of 2022. From the 30 students who answered the initial questionnaire, five were chosen for the interviews, selected on the basis of their answers to the questionnaires. The students have been assigned pseudonyms invented by the authors to preserve their anonymity. The following table (Table 1) elaborates on the backgrounds of the interviewees.

Table 1. Details of the interviews and interviewees.

Pseudonym	Sue	May	Logan	Sloan	Haven
Interview venue	School	School	School	School	School
Interview time	Spring 2022	Spring 2022	Spring 2022	Spring 2022	Spring 2022
Age	16	16	15	16	16
Mother tongue	Finnish	Finnish	Finnish	Finnish	Finnish
Previous experience in bilingual education	None	None	CLIL (grades 7–9)	None	None

The interviews were conducted by two of the researchers (i.e., author 2 and author 3) who also work as teachers at the school in which the research was conducted. This way, the students were familiar with the researchers, and the interviews could be labelled acquaintance interviews [33]. As Roiha and Iikkanen [33] have pointed out, in acquaintance interviews, the prior relationship between the interviewers and interviewees can serve as resource and may allow a more relaxed atmosphere to the interview situation. In addition, in an acquaintance interview setting, the researchers have a lot of contextual and background information that may not be available to an external interviewer. The interviews were semi-structured [34]: all five students were asked similar questions, but the conversational nature of the interview allowed some questions to be pursued in more detail. This made the interviews structured enough to cover the same core themes, yet flexible enough to allow room for any new observations to emerge. All interviews were audio-recorded and transcribed verbatim. The interviews were analysed with aspects of thematic analysis [35], informed by the theoretical background of foreign language self-concept.

5. Results

In this section, we present the questionnaire and interview results according to the research questions: (1) perceived effect of English-medium teaching on content learning in different subjects, (2) the development on the participants' English language self-concept during the pre-DP year and (3) the factors influencing this development. The results for the third research question are based solely on the interviews since the questionnaires focused only on the manifestation of the students' self-concept and not on the factors influencing it. We have incorporated direct quotations from the students in the results section, which we have translated into English (original language Finnish).

First, however, we report on some background information retrieved from the initial questionnaire. As indicated in the initial questionnaire, 80% of the students reported having the highest grade (i.e., 10 on a scale of 4–10) in English in lower secondary school, 77% reported having the second highest grade (i.e., 9) and only 13% reported having the third highest grade (i.e., 8). None of the students had ever received a grade below 8. The students therefore had a high level of English proficiency when they started the pre-DP year. All the students indicated English as being easy in lower secondary school; however, only 63% of them considered the English lessons useful whereas 7% of them considered lower secondary school English lessons useless. Surprisingly, as many as 43% thought that English lessons had been boring and only 33% had found them motivating. One possible reason for this may be the ease of English and the fact that the subject had not provided them with enough challenges.

5.1. Content Learning

As regards content learning, a paired samples *t*-test indicated statistical significance in students' stances toward the impact of studying in English on their learning in mathematics ($M_{diff} = 0.33$, 95% CI [0.11, 0.55], $t(26) = 3.12$, $p = 0.004$, effect size $d = 0.60$ 'medium'). The students felt that at the end of the pre-DP year, learning mathematics in English was easier than at the start of the year and some even considered the use of English facilitating their learning. A corresponding trend was identified in natural sciences (e.g., physics, chemistry) as in the initial questionnaire, 80% had considered English-medium teaching making learning the subjects in question more difficult and in the follow-up questionnaire only about half thought the same ($M_{diff} = 0.44$, 95% CI [0.09, 0.80], $t(26) = 2.59$, $p = 0.016$, effect size $d = 0.50$ 'medium'). It is important to note that even though the number of students who considered that English-medium teaching had complicated their learning of natural sciences had dropped, still more than half of them felt that it made their learning more difficult. Regarding other humanities subjects (e.g., history, psychology), considerably more students felt that the English-medium instruction facilitates their learning in the follow-up than in the initial questionnaire. Similarly, at the end of the pre-DP year, only 11 per cent of the students felt that the English-medium teaching makes the learning of other humanities subjects more difficult, compared to only a fifth who thought so at the beginning of the year. Though, it should be noted that 43% of the participants did not study other humanities subjects at the time when the initial questionnaire data were collected (see Table 2).

Table 2. The participants' answers on content learning in the initial and follow-up questionnaires.

Statement	Initial/ Follow-Up Questionnaire	I Did Not Study the Subject	1. Makes Learning More Difficult	2. Does Not Affect Learning	3. Facilitates Learning	<i>M</i> (<i>SD</i>)
Assess the impact of English-medium teaching on your learning in mathematics.	Initial	0%	40%	57%	3%	1.67 (0.55)
	Follow-up	0%	19%	63%	18%	2.00 (0.62) ($p_{diff} = 0.004$)
Assess the impact of English-medium teaching on your learning in natural sciences (e.g., physics, chemistry).	Initial	0%	80%	17%	3%	1.26 (0.53)
	Follow-Up	0%	52%	26%	22%	1.70 (0.82) ($p_{diff} = 0.016$)
Assess the impact of English-medium teaching on your learning in other humanities subjects (e.g., history, psychology).	Initial	43%	20%	27%	10%	1.93 (0.70)
	Follow-Up	0%	11%	37%	52%	2.33 (0.72)

Note. *p*-values in the last column indicates the statistical significance of mean paired differences when significance level was below 0.05 (paired *t*-test).

The interviewed students mostly talked about issues related to their self-concept and content learning was only touched upon in relation to this. Some of them brought forward the concern of the subject-specific or "academic" vocabulary, as Haven puts it:

- (1) Haven: Well, at first it made me a bit nervous [to speak English], because I have not studied in English before. So I wondered if I'll know enough vocabulary in

mathematics or other subjects like that. I had this sense of security with my English skills, that I know [English] and understand it really well, but I did not know if I could use it, and how much of so called academic vocabulary I know. And in the beginning it took a while to get used to, but once I got the hang of it, now it feels natural to use.

Haven's quote reveals how initially she was a little unsure of her grasp of mathematical concepts in English. This is understandable, as certain subject-specific concepts are not among the high-frequency words and therefore students may not have encountered them before. However, with strong general English skills, students are able to quickly absorb new language and concepts and integrate them into their existing mental lexicon. Haven's quote also reflects the idea that students are gradually accustomed to studying in a foreign language, which may at first be a new issue to them. This was a recurring theme in the interviews and discussed more in the section *Factors influencing the participants' English self-concept*.

Similarly, in her interview, Sloan talked about the mathematics lessons and how the language was a slight hindrance at first but now she finds the Finnish instructions confusing instead:

- (2) Sloan: But it is now no longer like that, because we have learned [mathematics] now in English. So if you have to look at a task in Finnish, you don't get it anymore. So now it's like the other way round.

5.2. English Self-Concept

Based on the questionnaires, the students had a very positive global English self-concept already at the outset of the pre-DP year (see statement "I am good at English") and it had remained positive during the year. Many domain-specific English self-concepts were very similar in both the initial and follow-up questionnaires. This was the case, for instance, for the students' English writing and comprehension self-concepts which had remained very positive. Statistical significance was only seen in two statements. Firstly, the students were more motivated to study English at the end than in the beginning of the pre-DP year ($M_{diff} = 0.30$, 95% CI [0.06, 0.54], $t(26) = 2.53$, $p = 0.018$, effect size $d = 0.49$ 'medium'). Secondly, the students felt that their English self-concept in pronunciation was more positive in the follow-up questionnaire ($M_{diff} = 0.44$, 95% CI [0.15, 0.74], $t(26) = 3.07$, $p = 0.005$, effect size $d = 0.59$ 'medium'). Overall, it seems that the students felt that their oral skills improved the most during the pre-DP year (see Table 3).

In the interviews, the students' English self-concept came across as highly strong. They felt that the pre-DP year had further strengthened their already-robust English self-concept. For instance, in the following quotation, Sue describes how her global English self-concept had changed during the year:

- (3) Sue: I'd say it has become stronger. Before pre-IB [=pre-DP] I thought I was already really good at English. Now that I've been here for a while I feel that I'm even better at English. My ego has grown!

Although in the above quotation Sue says she felt she was already good at English before the year, she nevertheless expressed feelings of uncertainty about the start of the pre-DP year as evidenced in the below quotation:

- (4) Sue: The first period was a terrible experience. I was so scared of coming here. I was afraid I wouldn't know anything. But then being here makes me realise that it's not that bad. You get used to it and there are nice people around you who are willing to help out. So when at first it felt awful now it's really nice.

Sue's quotation aptly illustrates the dynamic and situational nature of self-concept [12]. That is, although she considered herself proficient in English, the beginning of the pre-DP year was difficult for her on an affective level and her strong English self-concept suffered a momentary decline. This coincides with Marsh and Seaton's [25] big-fish-little-pond theory, which suggests that one's academic self-concept is formed in relation to their peers. In Sue's case, studying in the pre-DP with other students who were supposedly at a similar

level of English to her temporarily lowered her self-concept, whereas previously she had been better at English than her classmates, which in turn had contributed to her strong English self-concept.

Table 3. The participants' answers on English self-concept in the initial and follow-up questionnaires.

Statement	Initial/Follow-Up Questionnaire	Fully Disagree	Disagree	Neither Agree Nor Disagree	Agree	Fully Agree	M (SD)
I am good at English.	Initial				43%	57%	4.59 (0.50)
	Follow-Up				30%	70%	4.70 (0.47)
I can write well in English.	Initial			3%	54%	43%	4.41 (0.57)
	Follow-Up			4%	52%	44%	4.41 (0.57)
I am good at speaking English.	Initial		7%	10%	36%	47%	4.30 (0.82)
	Follow-Up			4%	52%	44%	4.41 (0.57)
I am a diligent English student.	Initial	3%	3%	23%	54%	17%	3.81 (0.88)
	Follow-Up	4%	4%	7%	55%	30%	4.04 (0.94)
I am a quick learner of English.	Initial			3%	37%	60%	4.59 (0.57)
	Follow-Up				37%	63%	4.63 (0.49)
I am good at pronouncing English words.	Initial		10%	13%	50%	27%	4.00 (0.83)
	Follow-Up				56%	44%	4.44 (0.51) ($p_{diff} = 0.005$)
The tasks given in the English subject are difficult.	Initial	37%	60%	3%		4%	1.67 (0.56)
	Follow-Up	41%	55%				1.70 (0.82)
I understand English speech very well.	Initial				30%	70%	4.74 (0.45)
	Follow-Up			4%	26%	70%	4.67 (0.56)
It is difficult for me to understand written texts in English.	Initial	47%	40%	13%			1.67 (0.73)
	Follow-Up	55%	41%	4%			1.48 (0.58)
I am motivated to study English.	Initial		7%	16%	57%	20%	4.00 (0.73)
	Follow-Up			15%	41%	44%	4.30 (0.72) ($p_{diff} = 0.018$)
I like to use English.	Initial				17%	83%	4.85 (0.36)
	Follow-Up				19%	81%	4.81 (0.40)
I am anxious about speaking English.	Initial	37%	23%	17%	20%		2.22 (1.28)
	Follow-Up	33%	48%	4%	15%	3%	2.00 (1.00)

Note. p -values in the last column indicates the statistical significance of mean paired differences when significance level was below 0.05 (paired t -test).

Sloan pointed out how her English was so strong that she found it even strange to use Finnish anymore:

(5) Interviewer: Do you and your friends speak English at school?

Sloan: Yes, definitely. No one wants to speak Finnish when it sounds so strange.

In her interview, Sloan juxtaposed her English and Finnish self-concepts and seemed to present her Finnish self-concept in a more negative light. This is interesting since presumably she is still better at Finnish than English, which demonstrates that one's ability in a language is not directly linked to one's language self-concept. Adhering to Marsh's [22] and Mercer's [12] theories, the internal comparisons between the two languages may have reinforced her English self-concept and conversely weakened her Finnish self-concept (see also quote 2). Similar results were found in studies by Roiha and Mäntylä [19,20].

In addition to the students' global English self-concept, they also talked about their domain-specific English self-concepts and how they had developed during the year. In line with the questionnaire results, the most salient theme emerging from the interviews was the students' perception of their improved spoken English skills. Sue describes this as follows:

(6) Sue: Before I came here I obviously spoke Finnish. When I came here there was a lot of English around me. I have become used to it, and now speaking in English is more natural than speaking in Finnish. Speaking in Finnish makes me more nervous now than speaking in English, especially at school.

Similarly to Sloan, Sue also seems to have formed a more positive self-concept in English than in Finnish.

Pronunciation was a specific area in oral skills that the interviewed students brought forward. They felt that their pronunciation had improved a lot and that they had gained more confidence in that area during the pre-DP year. The below quotation by Haven substantiates this view:

- (7) Haven: I feel more confident using English, and it doesn't take as long to find the words. And I usually also had to search for the correct pronunciation, because I want to say those words the right way, but I don't need to do that [search for the correct pronunciation] so much anymore now that I have learned how to speak better.

Haven also talks about her vocabulary and improved word retrieval speed. Therefore, it seems that in addition to her strengthened English self-concept, her English skills have become more automatic and she has thus become a more fluent English user. It could be, in line with the reciprocal effects model [23], that Haven's positive self-concept has improved her language learning and vice versa.

May also talked about the relationship between her confidence to speak English and vocabulary learning. The fact that May's vocabulary has increased during the pre-DP year has contributed to her positive English-speaking self-concept. In addition, May feels that her English listening and writing self-concepts have become stronger and more robust as a result of the pre-DP year:

- (8) May: I feel like I've evolved during the year, like I have more courage now that I have spoken . . . or used English with friends more... And my range of vocabulary has developed so that I know more words and different things, and I can explain things in English better now. [. . .] Positive change has evolved on many levels. In speech, listening and in thinking as well. And as a writer of course, using English has developed in many ways.

Logan was the only one out of the interviewed students who had some prior experience of bilingual education (see Table 1). Logan was aware of the importance of the CLIL background and wondered whether this helped more in the beginning:

- (9) Logan: It has been easier at the end of the year than it was at the beginning. Of course I had already had classes in English before. It must have been easier for me than for those who came from Finnish language schools [were only Finnish has been used as the language of instruction].

Both Logan and all the other interviewees pointed out how they had become accustomed to using English over the year, which had strengthened their English self-concept. We discuss this in more detail in the following subsection.

5.3. Factors Influencing the Participants' English Self-Concept

A key factor in the growing confidence experienced by the students was the passing of time. All students reported simply becoming used to using English and this affecting their self-concept in a positive manner. However, there were small differences between the interviewees in terms of when they felt they had become accustomed to using English as a language of learning and teaching. For instance, Haven and Sue felt this had happened quite early in the pre-DP year:

- (10) Haven: I think it was during the first few months, because in our class we use English even in our free time. So when you use it all the time, you learn it a lot faster than you would if you only used it during lessons.
- (11) Sue: I would say it was in the second period—maybe in the beginning, or halfway through. I had gotten used to it at that point. I got used to studying in English, and studying terminology, and at that point I was like 'this isn't so hard after all!'

Haven's quote also illustrates how English self-concept is shaped in a complex nexus of factors that includes not only the classroom but also situations and environments outside the school. The other interviewed students observed the change taking place a bit later:

- (12) May: Probably in December or some time after the Christmas holiday. When there was the long holiday in between and I was with my family and we only spoke Finnish I didn't use English at all. After the holiday I noticed that I'm pretty good at English.
- (13) Logan: Maybe I'm not as nervous [of speaking in English] as I was at the beginning.
- Interviewer: Right, are you able to specify what could be the cause of this change?
- Logan: I guess I'm more used to speaking English now.

In addition to the passing of time, May's quote illustrates how social comparisons have also been important in strengthening her English self-concept [12,26]. That is, when suddenly she was in an environment where others were not as good at English as she was, she gained confidence in her English use.

Another theme that came up as a significant factor in the development of the students' self-concept was the impact of the peer group. All the interviewees spoke about becoming more confident in their spoken English once they noticed that the social setting allowed them to make mistakes. This is illustrated by the following example:

- (14) May: Now I feel like I can speak [English] and I'm no longer scared to mispronounce because my friends will help me pronounce correctly. Before I was scared that everyone would be like "that's not how it's pronounced".

When asked how the peer group reacts to making mistakes when speaking English, Sloan's response is very eloquent:

- (15) Sloan: No one cares.

According to Haven, the group also actively collaborates to figure out the pronunciation of tricky words:

- (16) Haven: Usually, if I'm talking to someone about something, just the two of us, and if the other one doesn't know how to pronounce a word, they'll try to figure it out themselves, and if I don't know either, then we'll try to figure it out together, to get it right.

The interviewees also spoke about the development of group norms and how these norms encouraged them to use English more. The students report feeling more comfortable using English in a setting where it is considered acceptable. Sue illustrates this experience with a comparison:

- (17) Sue: [Before starting pre-DP] I was scared that other people might think I'm trying to be really good at English even if I wasn't, although I knew that I was. [...] I would say it's about the people around you. It's kind of like being on a bus and reading a book, and you don't actually want to read a book because you're scared that others around you would think that you just want to be different. It's kind of a similar experience. But when everyone else is doing it, you get used to it, and that's pretty good.

Sue's quote reveals that self-concept is formed in relation to different frames of reference [12,22]. On the one hand, the students perceived their own English proficiency in comparison to other people as a positive factor that strengthened their English self-concept. On the other hand, the students occasionally felt uncomfortable using a foreign language in Finland, which despite being officially bilingual is not always a very multilingual environment [36]. Thus, their pre-DP class provided them with a context and environment in which to use English freely and safely. At the same time, the language use can also be seen as acting as a builder and reinforcer of their identity as English speakers.

The group allowing or encouraging its members to speak English seems to strengthen a positive English self-concept for the participants:

- (18) May: I'm from a small town where no one spoke English. [...] If you spoke even a little bit of English there, people would look at you like you're weird. But here it's totally normal and you get more courage to speak English when no one looks at you like "what is that person doing, why are they speaking in a different language?"

Even though at the start of the pre-DP year some of the students seemed to have struggled slightly with their English, it appears that the positive learning environment and the group have supported the development of their positive English self-concept. These experiences seem to be somewhat contradictory with Marsh and Seaton's [25] big-fish-little-pond effect, as the students report feeling more confident in a group with academically able peers. This may be due to the power of the group norms themselves which in this group seem to encourage co-operation and supportive communication, thus reducing the initial nervousness the students report having experienced.

Finally, feedback from the teacher seemed to have less impact on the students' English self-concept. All students had had an oral exam in English from which they received feedback, for instance on their pronunciation. While Sloan and May reported this having a positive impact on their perceived skills, Logan and Haven did not consider it as significant. Sue stated the following on the matter:

- (19) Sue: It was like I realized that "oh, I can speak English quite well". Because before I was a bit insecure.

Although direct feedback from the teachers did not prove to be a prominent factor in the development of the students' English self-concept, the students pointed out how the teachers are important in other ways. May mentioned feeling more comfortable making mistakes in the classroom after getting to know the teachers, and she also spoke about the teachers instructing proper pronunciation.

6. Implications and Conclusions

This study looked at students' experiences of the pre-DP year; in particular, how they experienced learning content in a foreign language and how their English self-concept had developed over the year. Overall, it appears that the students' perceptions of the pre-DP year were positive. Based on this study, it seems that the objectives of the pre-DP year have been met with this specific cohort as they had learned the content and become used to the foreign language use.

The students felt that learning subjects had become easier during the year. In mathematics, most felt that the foreign language did not affect their learning at all. However, for science subjects, just over half still felt that the foreign language made learning the subject more challenging at the end of the year. The most significant change for students occurred in humanities subjects. That is, at the end of the pre-DP year, more than half of the students agreed that the foreign language facilitated their content learning, compared to only one in ten at the beginning of the year. These results are in line with previous research on students' content learning in IB schools [3] and provide further support for an educational approach that combines content and foreign language teaching.

The study suggests that the students' already-strong English self-concept was further strengthened over the course of the year. At the very beginning, some students had experienced occasional feelings of uncertainty about their English skills, but these had diminished over time. This is in line with research on bilingual education where the language of instruction has been partly English [20,26,31]. The main domain-specific self-concept that the students brought up was the English-speaking self-concept. This may partly reflect the fact that one of the foci of the pre-DP education is oral communication. However, this can also speak about the fact that students tend to associate language skills predominantly to speaking.

In addition to the passing of time, a positive and safe classroom atmosphere was mentioned as an important factor in reinforcing the participants' English self-concept. Although the role of the teacher was not explicitly mentioned in relation to this, the teacher nevertheless plays an important role in building and maintaining a positive classroom

atmosphere to reduce language anxiety among students. Related to this is how the teacher deals with language errors and the feedback they give to students, which can be meaningful to their English self-concept.

At a theoretical level, the results of the study substantiate many theories of foreign language self-concept. First, the variations in the students' English self-concept confirm that it is a dynamic and situational construct that oscillates throughout time [12]. Second, the fluctuations in the students' English and Finnish self-concepts indicate that the language self-concept is dynamic and that, although it is often linked to proficiency, it essentially represents one's self-beliefs in a language rather than the actual ability level [12]. Third, the results support the idea that language-specific self-concepts should be approached in a more domain specific way since the students brought forward areas of their English self-concepts in different ways, focusing on the English-speaking self-concept. Finally, the fact that the students also stated using English outside of the classroom shows that one's foreign language self-concept is often built in a complex network of multiple factors and contexts, making it difficult to pinpoint the impact of a specific factor or context.

The low number of participants can be seen as a limitation of the study. In addition, the acquaintance interviews may have influenced to some extent the views expressed by the participants in the interviews. This study opens up several avenues for future research. In the future, it would be interesting to further explore IB students' experiences of content learning and how it is affected by the foreign language. It would also be interesting to follow IB students' English self-concept over a longer period of time. As Mercer [12] has argued, self-concept in foreign languages becomes more complex and students become more critical of their own language skills as they develop in the language. It would therefore be fruitful to monitor the development of IB students' English self-concept as they progress in the programme.

Author Contributions: Conceptualization, A.R., E.S., J.S. and R.K.; Methodology, A.R., E.S., J.S. and R.K.; Formal Analysis, E.L., E.S., J.S., R.K. and A.R.; Investigation, E.S. and J.S.; Writing—Original Draft Preparation, A.R., E.S., J.S. and R.K.; Writing—review & editing, A.R., E.L., E.S. and J.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethical review and approval were not needed for this study as the Finnish National Board on Research Integrity (TENK) does not require it if there are no potential risks and harm to research participants.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data that inform this study are not publicly available as they contain information that could compromise the privacy of research participant.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. International Baccalaureate Organization. What Is an IB Education? 2019. Available online: <https://www.ibo.org/globalassets/new-structure/about-the-ib/pdfs/what-is-an-ib-education-en.pdf> (accessed on 20 March 2023).
2. International Baccalaureate Organization. Finland. Available online: <https://www.ibo.org/country/FI/> (accessed on 20 March 2023).
3. Dickson, A.; Perry, L.B.; Ledger, S. Impacts of International Baccalaureate programmes on teaching and learning: A review of the literature. *J. Res. Int. Educ.* **2018**, *17*, 240–261. [CrossRef]
4. Green, F.; Vignoles, A. An empirical method for deriving grade equivalence for university entrance qualifications: An application to A levels and the International Baccalaureate. *Oxf. Rev. Educ.* **2012**, *38*, 473–491. [CrossRef]
5. Saavedra, A.R. The academic impact of enrolment in International Baccalaureate Diploma Programs: A case study of Chicago public schools. *Teach. Coll. Rec.* **2014**, *116*, 1–40. [CrossRef]
6. Lazaruk, W.A. Linguistic, academic, and cognitive benefits of French immersion. *Can. Mod. Lang. Rev./Rev. Can. Lang. Vivantes* **2007**, *63*, 605–627. [CrossRef]
7. Graham, K.M.; Choi, Y.; Davoodi, A.; Razmeh, S.; Dixon, L.Q. Language and content outcomes of CLIL and EMI: A systematic review. *Lat. Am. J. Content Lang. Integr. Learn.* **2018**, *11*, 19–37. [CrossRef]

8. Roiha, A. The Role of CLIL Education in Individuals' Life Courses: Retrospective Narratives of Pupils From a Former CLIL Class. Ph.D. Thesis, University of Jyväskylä, Jyväskylä, Finland, 2019.
9. Massler, U. Primary CLIL and its stakeholders: What children, parents and teachers think of the potential merits and pitfalls of CLIL modules in primary teaching. *Int. CLIL Res. J.* **2012**, *1*, 36–46.
10. Pladevall-Ballester, E. Exploring primary school CLIL perceptions in Catalonia: Students', teachers' and parents' opinions and expectations. *Int. J. Biling. Educ. Biling.* **2015**, *18*, 45–59. [[CrossRef](#)]
11. Shavelson, R.J.; Hubner, J.J.; Stanton, G.C. Validation of construct interpretations. *Rev. Educ. Res.* **1976**, *46*, 407–441. [[CrossRef](#)]
12. Mercer, S. *Towards an Understanding of Language Learner Self-Concept*; Springer: Berlin/Heidelberg, Germany, 2011.
13. Harter, S. The self. In *Handbook of Child Psychology: Social, Emotional, and Personality Development*; Eisenberg, N., Damon, W., Lerner, R.M., Eds.; John Wiley & Sons Inc.: Hoboken, NJ, USA, 2006; pp. 505–570.
14. Marsh, H.W.; Shavelson, R.J. Self-concept: Its multifaceted, hierarchical structure. *Educ. Psychol.* **1985**, *20*, 107–123. [[CrossRef](#)]
15. Marsh, H.W.; Byrne, B.M.; Shavelson, R.J. A multifaceted academic self-concept: Its hierarchical structure and its relation to academic achievement. *J. Educ. Psychol.* **1988**, *80*, 366–380. [[CrossRef](#)]
16. Markus, H.; Wurf, E. The dynamic self-concept: A social-psychological perspective. *Annu. Rev. Psychol.* **1987**, *38*, 299–337. [[CrossRef](#)]
17. Laine, E.; Pihko, M.-K. *Kieliminä ja Sen Mittaaminen*; University of Jyväskylä: Jyväskylä, Finland, 1991.
18. Yeung, A.S.; Wong, E.K.P. Domain specificity of trilingual teachers' verbal self-concepts. *J. Educ. Psychol.* **2004**, *26*, 360–368. [[CrossRef](#)]
19. Roiha, A.; Mäntylä, K. CLIL as a vehicle for a positive English self-concept: An analysis of one former student's life course. In *The Psychological Experience of Integrating Content and Language*; Talbot, K.R., Gruber, M.-T., Nishida, R., Eds.; Multilingual Matters: Bristol, UK, 2021; pp. 55–72.
20. Roiha, A.; Mäntylä, K. 'It has given me this kind of courage. . .': The significance of CLIL in forming a positive target language self-concept. *Int. J. Biling. Educ. Biling.* **2022**, *25*, 100–116. [[CrossRef](#)]
21. Lau, I.C.; Yeung, A.S.; Jin, P.; Low, R. Toward a hierarchical, multidimensional English self-concept. *J. Educ. Psychol.* **1999**, *91*, 747–755. [[CrossRef](#)]
22. Marsh, H.W. Verbal and math self-concepts: An internal/external frame of reference model. *Am. Educ. Res. J.* **1986**, *23*, 129–149. [[CrossRef](#)]
23. Marsh, H.W. The causal ordering of academic self-concept and academic achievement: A multiwave, longitudinal panel analysis. *J. Educ. Psychol.* **1990**, *82*, 646–656. [[CrossRef](#)]
24. Marsh, H.W.; Pekrun, R.; Murayama, K.; Arens, K.A.; Parker, P.D.; Guo, J.; Dicke, T. An integrated model of academic self-concept development: Academic self-concept, grades, test scores, and tracking over six years. *Dev. Psychol.* **2018**, *54*, 263–280. [[CrossRef](#)]
25. Marsh, H.W.; Seaton, M. The big-fish-little-pond effect, competence self-perceptions, and relativity: Substantive advances and methodological innovation. In *Advances in Motivation Science*; Elliott, A.J., Ed.; Elsevier: Amsterdam, The Netherlands, 2015; pp. 127–184.
26. Pihko, M.K. *Minä, Koulu ja Englanti. Vertaileva Tutkimus Englanninkielisen Sisällönopetuksen ja Perinteisen Englannin Opetuksen Affektiivisistä Tuloksista*; University of Jyväskylä: Jyväskylä, Finland, 2007.
27. Konttinen, M. Students at the Core of English-Medium Instruction: Research on the Study Paths of International Master's Degree Students and the Role of Academic English and Literacies. Ph.D. Thesis, University of Jyväskylä, Jyväskylä, Finland, 2018.
28. Mendoza, L.; Lehtonen, T.; Lindblom-Ylänne, S.; Hyttinen, H. Exploring first-year university students' learning journals: Conceptions of second language self-concept and self-efficacy for academic writing. *System* **2022**, *106*, 102759. [[CrossRef](#)]
29. Sahan, K.; Kamaşak, R.; Rose, H. The interplay of motivated behaviour, self-concept, self-efficacy, and language use on ease of academic study in English medium education. *System* **2023**, *114*, 103016. [[CrossRef](#)]
30. Seikkula-Leino, J. CLIL learning: Achievement levels and affective factors. *Lang. Educ.* **2007**, *21*, 328–341. [[CrossRef](#)]
31. Rumlich, D. *Evaluating Bilingual Education in Germany: CLIL Students' General English Proficiency, EFL Self-Concept and Interest*; Peter Lang: Lausanne, Switzerland, 2016.
32. Cohen, J. *Statistical Power Analysis for the Behavioural Sciences*; Lawrence Erlbaum: Mahwah, NJ, USA, 1988.
33. Roiha, A.; Iikkanen, P. The salience of a prior relationship between researcher and participants: Reflecting on acquaintance interviews. *Res. Methods Appl. Linguist.* **2022**, *1*, 100003. [[CrossRef](#)]
34. Magaldi, D.; Berler, M. Semi-structured Interviews. In *Encyclopedia of Personality and Individual Differences*; Zeigler-Hill, V., Shackelford, T.K., Eds.; Springer: Berlin/Heidelberg, Germany, 2020; pp. 4825–4830.
35. Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101. [[CrossRef](#)]
36. Halonen, M.; Ihalainen, P.; Saarinen, T. (Eds.) *Language Policies in Finland and Sweden: Interdisciplinary and Multi-SIDED Comparisons*; Multilingual Matters: Bristol, UK, 2015.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.