SERENDIPITY AND SURPRISE: A DIACHRONIC ANALYSIS OF INTERNATIONAL BACCALAUREATE IN THE GLOBAL PRESS 1977-2019

ABSTRACT
This study examines perceptions of the International Baccalaureate (IB) over five decades to better understand its growing influence on education systems around the world. As part of the global education industry, the IB plays an important role in shaping national public education discourse. Building on previous synchronous analyses that used a corpus-assisted discourse studies (CADS) approach, the present study conducts a diachronic exploration of the same 28 million word corpus of global press articles to see how perceptions of the IB may have changed over its 55-year history. Trends over time revealed five main shifts in IB discourse: (i) from education to brand; (ii) from concrete curriculum-related lexis to recurring value-laden terms; (iii) from comparison to competition with other national curricula; (iv) from academic qualification to institutional regulation; and (v) from students to IB coordinator. Findings also showed a stable group of collocates that occurred consistently across all time periods, pointing to an 'invariant core' (Morley & Partington, 2009) meaning of the IB that provides fresh insight into how the dominant view of the IB as a singular standardized brand may be entrenched and taken for granted.

KEYWORDS
Corpus-assisted discourse studies; International Baccalaureate; SDGs; OECD; PISA; global education

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DOI
10.18573/jcads.118

ORCID
0000-0002-0491-0824

ISSUE DOI
10.18573/jcads.v7

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Manuscript accepted 2024-01-08

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1. Introduction

In October 2023, there was a frenzy of media coverage in the UK about the possibility of the national curriculum, the A-Levels, being replaced by a ‘British Baccalaureate’ modelled on the International Baccalaureate (IB), an idea that was proposed by the Prime Minister, Rishi Sunak (Clarke, 2023). The suggestion was that an IB-type curriculum could be a solution to all that was seen as deficient with the A-Levels. Whilst this plan was presented as something new (*major reform, radical shake-up*), the denigration of A-Levels is a recurring feature in the UK political landscape (Warmington & Murphy, 2004), frequently being described in terms of ‘discourses of derision’ (Ball, 1995), such as being too narrow and specialized, outdated and unsuitable for the pressing needs of the 21st century. A similar sentiment was evident two decades ago in connection with education reform in the UK when, according to Hodgson and Spours (2003), the ongoing debate about whether it was time to replace the A-Levels with a ‘baccalaureate’ or a ‘baccalaureate-style’ qualification pointed to what they called ‘policy amnesia’ (p. 2).

As noted in previous research (Fitzgerald, 2023b), this type of comparison between national (provincial or state) curricula and the IB is a recurring theme in the context of education debates around the world and occurs in three main frames: (i) as a model for education reform (‘falling standards’ discourse); (ii) as one of many possibilities or an alternative (discourse of choice); and (iii) in evaluative statements (discourse of superiority). Although dominant descriptions of the IB present it as a singular standardized brand providing the same services everywhere, variation in IB representation becomes evident when different contexts are compared. For example, in the US, where too much curricular choice (‘cafeteria-style curriculum’) is seen as the problem, the strict requirements and structure of the IB are emphasized. In the UK, on the other hand, where A-Levels are criticized for being too narrow and specialized, the IB’s breadth and choice are highlighted. This type of variation in different contexts provides clues as to how different aspects of the IB may be foregrounded or backgrounded. Showing this fluid and flexible discursive deployment of the IB, with associated values and attitudes, is important because it not only helps problematize the dominant view of the IB as a singular entity, but also sheds light on how it can mean different things according to stakeholder need and thus appeal to countries across the ideological spectrum.

In order to understand the extent to which this kind of variation is evident in IB discourse, the present study uses a corpus-assisted discourse studies (CADS) approach (Partington, 2004, 2023; Partington *et al.*, 2013) to examine linguistic patterns around the node *international baccalaureate* in a 28 million word corpus of global press articles. Previ-
ous studies on the IB have tended to be small-scale and specific, focusing on how IB programs are implemented in particular schools (e.g., Bittencourt, 2021), individual countries such as Poland (Leek, 2022), Costa Rica and Peru (Beech et al., 2022), or particular regions such as Asia-Pacific (Engel, 2022). Whilst such studies provide important insights into how IB programs are transformed in local settings (Resnik, 2019; Steiner-Khamisi & Dugonjic, 2018), local or individual perspectives do not show systematic issues, and so fail to capture the global or transnational role of the IB and how it is perceived more broadly. Using large data sets and CADS enables us to identify recurring patterns that can shed light on how micro level linguistic choice may be linked to macro level social structures in a dialectical relationship. In addition, as noted by Partington (2010), CADS enables the study of how discourses shift over time, changes that may be indicative of changing social values. In the next section, I provide some information about the IB and situate it in the wider context of the global education industry (Verger et al., 2016).

2. The IB and the Global Education Industry

Over its 55-year history, the IB organization has become a global education provider, with 5,600 schools in 159 countries offering one or more of four programs: Primary Years, Middle Years, Career-related, and Diploma (IBO, 2023a). More recently, the IB has also branched out into Teacher Training programs offered in partnership with universities in Australia, Canada, China, India, Japan, Kenya, Lithuania, Malaysia, South Korea, Spain, Taiwan, Turkey, UK, and US. Thus, the IB encompasses the full range of education from kindergarten to post-secondary.

Verger et al. (2016) define the global education industry as ‘educational services [that] are produced, exchanged and consumed on a for-profit basis and through supra-national interactions’ (pp. 4-5). According to these authors, such services include test preparation services, provision of curriculum packages, certification services, teacher training, and recruitment of university students. Interestingly, although the IB fits all aspects of the definition, it is not listed as a main actor in this arena, perhaps because it is officially registered as a non-profit foundation (IBO, 2023b), a label that tends to overshadow its business side (Fitzgerald, 2017). This aspect became clearer during the Covid-19 pandemic, when schools and other businesses were suddenly forced to shut down, yet the IB organization’s financial records still reported a net gain (IBO, 2020).

Critical analysis of the global education industry is plentiful (e.g., Ball, 2012; Lingard, 2019; Mohamed & Morris, 2021; Steiner-Khamisi, 2018), including one notable response from Finnish educator Pasi Sahlberg, who referred to this growing influence of large organizations in metaphorical terms that perhaps has greater resonance in a post-Covid-19 world:

Curricula are standardized to fit to international student tests; and students around the world study learning materials from global providers. Education reforms in different countries also follow similar patterns. So visible is this common way of improvement that

I call it the Global Educational Reform Movement or GERM. It is like an epidemic that spreads and infects education systems through a virus. (Sahlberg, 2012)

According to Sahlberg (2012), GERM exhibits three main symptoms that threaten public education: (i) emphasis on more competition within education systems; (ii) increase in school choice that positions parents as consumers; and (iii) proliferation of standardized testing to measure outcomes. Together, they represent aspects of the ideological division between education as a public good and education as private enterprise (Elias, 2019). Although the provision of education has traditionally been viewed as the responsibility of individual countries, the 2021 Global Education Monitoring (GEM) report published by the United Nations Educational, Scientific and Cultural Organization (UNESCO) highlighted the important and influential role that non-state actors play in education around the world and the impact they have on state education. The report also identified key recurring myths about education that shape public opinion, such as that private schools are better than public (state) schools, that an increase in school choice saves government money, and that private schools are more innovative. In sum, the key point in this report is that there is a need to transform the narrative of education before education can be transformed. However, as noted by Partington and Marchi (2015), ‘one needs to ascertain what actually was and was not said or written, and the corpus-assisted discourse analyst would appear to be in a good position to do so’ (p. 233).

As a key actor in the global education industry and GERM, the IB provides an important case study, a way to understand how it has evolved over its 55-year history and what this can tell us about changing social values. Literature on the IB is plentiful, but as noted by Cambridge (2008), much of the research for the first forty years was produced by the IB organization or its affiliates and thus could not be seen as impartial. However, a recent systematic review conducted by Ben Jaafar et al. (2023) indicates a growing interest in the IB, as does a newly published Special Issue dedicated to the IB (Gardner-McTaggart et al., 2023). Whilst this increased research activity is important and helps further our understanding of the myriad roles the IB plays, there is little research on how the IB is perceived globally, either in terms of the general public or in texts not generated by the IB, a gap the present research project aims to address, guided by the following overarching research questions:

1. How is the International Baccalaureate represented in the global press?
2. How has this representation changed over the IB’s 50-year history?

3. Language and the IB – methodological challenges

The importance of language for the IB organization is evident in its publications. For example, between 2006-2007, just in advance of its 40th anniversary, the IB published explanatory guides for laypeople, describing the kinds of things that made the IB unique amongst a plethora of educational offerings. One part of the guide included a graphic entitled ‘When people talk about the IB, certain words and phrases are frequently used’ and listed a variety of attributes that come from the IB’s mission statement and learner profile...
A significant feature of language used to talk about the IB is its similarity across contexts, as noted in a recent study by Bunnell et al. (2019), who pointed out that this ‘common and shared language’, also referred to as ‘IB lingo’, formed an important part of an IB school:

It’s absolutely everywhere, it’s on the wall, it’s the lingo, the branding is everywhere, you walk into an IB World School and they shout it at you from the moment you walk in the door, it’s part of the discourse, and so the IB terminology is absolutely everywhere – it’s pervasive. (Bunnell et al., 2019, p. 11)

The IB’s focus on language is challenging to study, as the organization exercises tight control over its brand and message. This brings to mind Duguid’s (2007) notion of ‘forced lexical priming’, where certain words are used repeatedly to ‘deliberately flood’ the discourse for strategic purposes (Duguid & Partington, 2017, p. 67). The sources that are privileged also tend to be from the IB, since much of the literature is either produced or funded by the organization. For these reasons, looking at the media as a source of non-IB generated texts provided an important window into perceptions of the IB in everyday interaction. In addition, the IB context evinces the relative scarcity of diachronic research noted by Marchi (2018), as there are only two studies to date that have examined the IB over a period of time, of which both rely on information provided by the organization (Dulfer & Dawborn-Gundlach, 2022; Tarc, 2009).

Alan Partington’s approach to diachronic corpus research has been highly influential, as attested by this Special Issue, and has been discussed by many authors, (see for example in Anna Marchi’s (2018) excellent discussion of the topic.

### 4. Data and Method

Articles for the IB press corpus were obtained using two online databases, LexisNexis and Canadian Newsstream, using the search term *international baccalaureate*. Two data sources were used to allow for maximum representation of public attitudes and perceptions (McEnery & Hardie, 2012). To this end, and to avoid potential selection bias, all articles containing the search term were included, such as letters and opinion pieces, obituaries, sports and news. Thus, the IB press corpus is varied, allowing for a broad and unsolicited window into public opinion and providing a way to understand dialectic ‘constitutive effect of discourse’ (Mautner, 2008, p. 32). All English language articles were downloaded and saved by date as individual text files. Once duplicates were removed, the final IB corpus contained 33,982 articles with a total of 28,355,602 tokens. Table 1 shows the frequency of the search term *international baccalaureate* in the IB corpus relative to other large general corpora.

The benefit of creating a bespoke corpus becomes evident when we see the greater number of instances of the search term available for analysis. In addition, the IB corpus can be considered complete in the sense that at the time of data collection, it covered all English language press reporting on the IB available on these two databases for its entire 51-year existence (1968-2019).
<table>
<thead>
<tr>
<th>Corpus</th>
<th>Size (tokens)</th>
<th>Frequency (per million tokens)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COCA (Global Web-Based English)</td>
<td>1 billion</td>
<td>0.13</td>
</tr>
<tr>
<td>GloWbE (Global Web-Based English)</td>
<td>1.9 billion</td>
<td>0.25</td>
</tr>
<tr>
<td>NOW (News on the Web)</td>
<td>12.8 billion</td>
<td>0.23</td>
</tr>
<tr>
<td>enTenTen15</td>
<td>13 billion</td>
<td>0.54</td>
</tr>
<tr>
<td>enTenTen18</td>
<td>22 billion</td>
<td>0.34</td>
</tr>
<tr>
<td>enTenTen20</td>
<td>38.1 billion</td>
<td>0.37</td>
</tr>
<tr>
<td>IB press corpus</td>
<td>28.4 million</td>
<td>1,349</td>
</tr>
</tbody>
</table>

Table 1. Frequency of international baccalaureate in general corpora

However, no articles were available prior to 1977 on the two databases, which means that the corpus dated from 1977 until the end of 2019, for a total of 42 years (except for 1978 when no articles appeared). Figure 1 shows the breakdown of the IB corpus by year.

As Figure 1 shows, the number of articles per year varies significantly between the early and later years, with minimal press reporting on the IB in the first two decades of the organization’s existence (1968-1988), after which there is a noticeable steady increase, reaching a peak in 2008 on its 40th anniversary, which suggests the IB was becoming more newsworthy over time. In order to guard against potential over- or under-interpretation (O’Halloran & Coffin, 2004) due to this variability, the analysis used a variety of tools and techniques for their different affordances and for triangulation purposes (Taylor, 2010). Sketch Engine (Kilgarriff et al., 2014) and AntConc (Anthony, 2020) were used at different stages of the analysis, and COCA (Davies, 2008) served as a general ref-

erence corpus. Two different association measures were also used: logDice to obtain collocates indicating typicality (as well as address the issue of sub-corpora of different sizes, see Kinloch & Jaworska, 2020) and Mutual Information (MI) to obtain collocates indicating exclusivity (Gablasova et al., 2017). This was seen as necessary for a corpus containing texts from different countries, exemplifying Baker’s (2006) point that there are many ways to say the same thing. For example, pupil, graduate, freshman, senior, valedictorian are all different ways of referring to students, though some are more evaluative than others. However, interest was not in the individual words in themselves but how, as a group, they contributed to IB discourse (Gabrielatos & Baker, 2008). Specific detail for each stage of the analysis is provided below in the description of the method.

4.1. A note on serendipity and surprise during data collection

Marchi (2021) points out that research begins not after we have our data but well before then. In addition, collecting data through the use of search terms and automated procedures allows for the ‘serendipity effect’ (Marchi & Partington, 2012), i.e., the discovery of topics or themes that were unanticipated. This was the case with the data collection process for the IB corpus, where I discovered that while the search term *international baccalaureate* appeared as expected in sections of newspapers, such as Back to School, Education, Local News, it also occurred in a variety of surprising contexts, such as Sports, Real Estate, Obituaries, and Crime.

(1) **Sports:** [Name], a 6-foot-2, 334-pound tackle and nose guard, has been the [Team’s] best offensive lineman the past two seasons...[he] is an *International Baccalaureate* student carrying a 4.68 grade-point-average, according to his coach. (*The Tampa Tribune*, 2013)

(2) **Real Estate:** Parents in search of schools with *International Baccalaureate* programs are heating up the real estate market in some neighbourhoods...Mr. [Name] says that houses in areas with an IB school are selling faster and for more money right now than those in areas where this rigorous academic program isn’t already in place. (*The Globe and Mail*, 2010)

(3) **Obituaries:** [Name], 83, a retired Navy commander who was a substitute teacher until February at Arlington schools, died of cancer May 12 at his home in Arlington. He...more recently taught *International Baccalaureate* courses at [School]. (*Washington Post*, 2002)

(4) **Crime:** Preppies are upscale, jocks enjoy sports, bangers dress in heavy metal regalia, skaters wear jams and skateboards, browners study a lot, I.B.s are high achievement students (who attend the *International Baccalaureate* program), and outcasts are kids who don’t belong to any group...(*Calgary Herald*, 1991)

What is interesting about the appearance of the IB in such a diverse range of contexts is that, in each case, it is not the focus but only mentioned in passing, contributing to the drip-drip incremental effect of discourse (Baker, 2006). This pattern also seems to be accessing shared assumptions about the IB to convey additional information, such as a student being adept at both athletics and academics, the financial implications of the IB at the local/individual level, a person’s list of achievements, or, as in the final example, an
organizing principle used to catalogue different types of people. The discursive function of international baccalaureate becomes more evident if we substitute other possible lexical choices such as ‘high school curriculum’ or ‘A-levels’, which do not carry the same sort of weight (Fitzgerald, 2017, 2018). In sum, the range of contexts became visible in the process of collecting a large number of articles on the topic and most likely would not have been noticed in casual encounters.

4.2. Stages of analysis

The present study forms part of a larger research project on the IB, and thus focuses on one particular part relating to the diachronic study of the IB. The first stage of the project considered the corpus as a whole and provided a broad look at IB representation synchronically, but is not reported here (Fitzgerald, 2023b). For the present study, there were two main stages of analysis: (1) by year (42 years) and (2) by four similar time periods. These were decided upon following Marchi (2018), bearing in mind that corpora can be divided up in many different ways depending on purpose. For example, data-driven peaks and troughs (Gabrielatos et al., 2012) could have been an approach, or a top-down division based on key events for the organization, such as anniversaries or changes in leadership. However, since the IB corpus represents as much as possible ‘the complete output of a source of data for a continuous stretch of time’ (Marchi, 2018, p. 179), calendar year(s) were chosen as the unit of time best suited to address the research questions (see also Marchi, 2021).

The first stage consisted of analyzing each sub-corpus representing one calendar year using AntConc and Sketch Engine to obtain typical as well as exclusive collocates. Since each sub-corpus varied significantly in size, the analytical approach was iterative and flexible, moving from more qualitative to quantitative approaches. In the early years, where the available data were minimal, concordance lines and full articles were examined to see how the target term international baccalaureate was talked about. As the sub-corpora became larger, collocations were identified using MI (>3) + Log-likelihood ($p < .05$), a window span of 5L/5R, a minimum frequency of 5 and a minimum range of 5. Collocates were also obtained using Sketch Engine’s Word Sketch and collocation tools with a minimum logDice score of 7. Individual words were examined in context to determine how they were being used, and those that met the threshold were transferred onto an Excel spreadsheet organized by year. Recurring words were then colour-coded in order to distinguish those that occurred consistently from those that were more seasonal (Gabrielatos & Baker, 2008). This year-by-year analysis provided a fine-grained look at the data, enabling bottom-up topics and themes to emerge that provided useful contextual information for interpretation and categorization in the second stage of the analysis.

The second stage consisted of dividing the corpus into four time periods of roughly equal length as a way to examine broader trends, and to avoid structuring the time periods according to events in IB history. Details of the sub-corpora are shown in Table 2. Each collocate was examined in context via concordance lines, and full articles when ne-
cessary, to discover recurring patterns of use and draw out semantic groups. Collocates were then manually grouped based on their meaning in use.

<table>
<thead>
<tr>
<th>Decade</th>
<th>Number of articles</th>
<th>Number of tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-1987 (11 years)</td>
<td>63</td>
<td>56,892</td>
</tr>
<tr>
<td>1988-1998 (11 years)</td>
<td>2,123</td>
<td>1,978,521</td>
</tr>
<tr>
<td>1999-2009 (11 years)</td>
<td>14,387</td>
<td>12,261,521</td>
</tr>
<tr>
<td>2010-2019 (10 years)</td>
<td>17,409</td>
<td>14,058,668</td>
</tr>
<tr>
<td>Total</td>
<td>33,982</td>
<td>28,355,602</td>
</tr>
</tbody>
</table>

Table 2. Details of IB corpus divided into four time periods

Here, I focus on key findings from this stage of the analysis, supplemented when necessary by findings from the first stage, as a way to illustrate the ‘added value’ (Partington & Marchi, 2015, p. 217) of CADS methodology.

5. Findings and analysis

5.1. Change over four time periods

Collocates for each of the four time periods were first noted individually, as shown in Table 3.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>switzerland</td>
<td>scottish highers</td>
<td>australasian</td>
<td>switzerland</td>
</tr>
<tr>
<td>offer</td>
<td>prestigious</td>
<td>modelled</td>
<td>nvqs (UK)</td>
</tr>
<tr>
<td>diploma</td>
<td>rigorous</td>
<td>headquartered</td>
<td>ibmyp</td>
</tr>
<tr>
<td>program</td>
<td>stringent</td>
<td>authorized</td>
<td>diploma</td>
</tr>
<tr>
<td>ib</td>
<td>accelerated</td>
<td>ibdp</td>
<td>ibpyp</td>
</tr>
<tr>
<td>college</td>
<td>respected</td>
<td>program</td>
<td>ibo</td>
</tr>
<tr>
<td>high</td>
<td>program</td>
<td>advanced placement</td>
<td>authorized</td>
</tr>
<tr>
<td>students</td>
<td>acclaimed</td>
<td>ibo</td>
<td>advanced placement</td>
</tr>
<tr>
<td>school</td>
<td>demanding</td>
<td>candidacy</td>
<td>program</td>
</tr>
<tr>
<td>schools</td>
<td>coordinator</td>
<td>welsh</td>
<td>continuum</td>
</tr>
</tbody>
</table>

Table 3. Top 10 collocates for international baccalaureate over four time periods, consistent collocates in italics

This step allowed for some initial observations and for noting similarities between words that could be usefully grouped together. For example, collocates in the first time period (1977-1987) clustered around the IB’s genealogy (switzerland) and the sole program it offered at the time (diploma, program), which was created for students (high school, stu-
students) seeking to gain entry into university (college). The second time period (1988-1998) showed a proliferation of descriptors (prestigious, rigorous, stringent, accelerated, respected, acclaimed, demanding), comparison of the IB with another curriculum (Scottish highers), and reference to an IB official (coordinator). The third time period (1999-2009) showed additional curricula being mentioned alongside the IB (advanced placement, welsh), as well as reference to the IB organization (australasian, ibo, headquartered) providing the necessary licence for programs (ibdp) to be offered in schools (authorized, candidacy). Finally, the fourth time period (2010-2019) showed an increase in IB brand names (ibmyp, ibpyp, continuum) as well as collocates relating to the institution (switzerland, authorized). The collocate program was consistent across all periods (indicated in italics), typically as international baccalaureate program. This initial observation of the collocates showed that the way the IB was talked about was not static or fixed, but rather seemed to change over time. This is particularly important with respect to the IB, which is typically presented in universal monolithic terms in an effort to construct it as a singular standardized curriculum that is the same everywhere (Fitzgerald, 2023a; Cambridge, 2002).

<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IB curriculum</td>
<td>diploma, program, ib</td>
<td>diploma, program</td>
<td>diploma, program, ib, ibd, ibdp</td>
<td>diploma, program, dp, ib, ibcp, ibd, ibdp, ibmyp, ibpyp, myp, pyp</td>
</tr>
<tr>
<td>Descriptors</td>
<td>switzerland</td>
<td>geneva, accelerated, acclaimed, demanding, prestigious, respected, rigorous, stringent, challenging</td>
<td>geneva, swiss, demanding, lauded, rigorous, prestigious, pricey, magnet, two-year, challenging</td>
<td>geneva, swiss, switzerland, acclaimed, demanding, rigorous, prestigious, challenging</td>
</tr>
<tr>
<td>Other curricula</td>
<td>advanced placement [US]</td>
<td>advanced placement, aqa [UK], btec [UK], nvqs [UK], ntce [Aus], vcal [Aus], welsh bacc, a-levels</td>
<td>ibo, organization, organisation, candidate</td>
<td>advanced placement, aqa, btec, ebacc, highers, icse [India], immersion [Can], lebanese, nvqs, cambridge, a-levels</td>
</tr>
<tr>
<td>Institution</td>
<td>college, high, school, schools</td>
<td>college, high, school’s</td>
<td>ibo, organization, organisation, candidate</td>
<td>ibo, ibsca, organization, organisation, candidate</td>
</tr>
<tr>
<td>Regulation</td>
<td></td>
<td></td>
<td>accredited, authorized, authorised</td>
<td>accredited, authorized, authorised</td>
</tr>
<tr>
<td>People</td>
<td>students</td>
<td>coordinator, graduate, valedictorian</td>
<td>coordinator, students, graduate,</td>
<td>coordinator, pupils, students</td>
</tr>
</tbody>
</table>

Table 4. Collocates by semantic field over four time periods

Collocates from the four time periods were then grouped into six broad semantic fields as shown in Table 4. Organizing collocates according to semantic field provides a helpful way to identify presence, absence, stability and changes of meaning over time (Baker, 2013; Partington, 2010; Partington & Marchi, 2015). The collocates marked in italics indicate a consistent (Gabrielatos & Baker, 2008) association with the node *international baccalaureate* (i.e., they appear in every time period).

5.2. *IB* curriculum

Collocates in this group show both consistency and variation over time. The collocates *diploma* and *program* appear in every time period, indicating that they form an ‘invariant core’ (Morley & Partington, 2009, p. 147) meaning of *international baccalaureate*. This was also noted in the synchronic part of the larger research project and thus was not an unexpected finding, more along the line of ‘I knew that all along’ (Partington, 2017), though the continued reference year after year, even when other IB programs entered the picture, emphasized the dominance of the IB diploma program in public perception, i.e., when people talk about the IB, they usually mean the diploma program (Bunnell, 2011), an aspect that has been noted in previous studies (Fitzgerald, 2018). However, what was not visible in the synchronic analysis but becomes evident here is the rise in frequency and type of acronyms (e.g., *dp*, *ibcp*, *ibmyp*, *ibpyp*), particularly in the fourth time period, suggesting the development of a more established brand in which acronyms serve to solidify different elements into a unifying whole. Stepping outside the corpus (Baker, 2018; Partington *et al.*, 2013), we find that this was certainly the intention of the IB organization as it launched its ‘new visual identity’ in 2007 in preparation for its 40th anniversary in 2008 (IBO, 2007). Thus one explanation for this increase in the number of acronyms could be the result of the organization’s rebranding.

Also notable in this group is the absence (Partington, 2014) of the other IB programs in the second time period, even though they were also available (Middle Years Program in 1994 and Primary Years Program in 1997), suggesting that they were not well known until more than a decade after their launch, placing the focus firmly on the original Diploma Program. This pattern provides some evidence of how the dominant perception equating ‘IB’ with the diploma program became entrenched. In addition, with the increase in acronyms in the fourth time period (2010-2019), variation in naming strategies becomes evident, for example, the diploma program is referred to as *dp*, *ibd*, *ibdp*.

A further ‘non-obvious’ (Partington, 2017) change that became visible due to the diachronic analysis that had not been evident synchronically was in naming strategies. The use of the acronym *IB* changed from mostly functioning as a short form, as in *International Baccalaureate (IB)*, to a reversal of order where the acronym comes first, followed by the name in a more explanatory role, i.e., *IB (International Baccalaureate)*. This reversal suggests that the brand name was becoming more recognizable over time, which in-
volved the acronym gaining currency. It is important to remember, however, that the use of acronyms is not just a short form, but also a way of making something appear more neutral or free floating, without baggage. As noted by Koller (2007), acronyms do a lot more than just shorten the name; they provide ‘a neutral-sounding label that is easily adaptable to different contexts’ (p. 116).

5.3. **Descriptors**

Collocates in this group are adjectival attributes typically associated with *international baccalaureate*, which help construct the IB in positive evaluative terms. However, the increase in the number of attributes only became visible diachronically.

5.3.1. **Geographic: switzerland, geneva, swiss**

References to Switzerland (*switzerland, geneva, swiss*) are consistent in all time periods and typically occur in descriptions of the IB (e.g., *began, administered, based in*). The persistent strong bond between the two is notable given that half of all IB schools are located in North America and that the IB organization is a global operation with offices in the Netherlands, Singapore, the UK and the US. This consistent collocate appeared to be doing more work than just providing geographical information. Concordance analysis revealed values linked to a discourse of internationalism (*international mindedness, global citizenship*) and a moral dimension that emphasized global unity and co-operation over that of national self-interest, aspects also noted by other researchers (Bunnell, 2011; Cambridge & Thompson, 2004; Doherty, 2009).

In order to better understand this close link, it was again important to consult other sources outside the corpus (Partington, 2013), which showed that Switzerland was where the IB was developed enabled in part by funds from UNESCO (Fox, 1985; Peterson, 1972, 1987). A number of researchers have noted how this connection seemed to provide the IB with strategic benefits. For example, Hahn (2003) found that the organization played up its neutral and non-governmental aspect in order to convey the image of a UN-type humanitarian organization rather than a business (p. 102). Cambridge (2002) noted that the IB may be associated with other international agencies such as the UN ‘because their offices are all located in Geneva’ (pp. 235-236).

A serendipitous search (Partington, 2018) for *united nations* in the IB corpus brought up a surprise ‘counterexample’ (Partington & Marchi, 2015) that occurred only in articles from the US (2011-2012) and related to a debate about *Agenda 21*. The UN connection to the IB in this case showed that close ties do not always prove beneficial:

(5) The Highlands County Tea Party also has grave concerns about “Agenda 21,” a United Nations initiative that began in 1992...United Nations, communists and socialists are plotting to take down the U.S government in a multi-pronged attack from within that involves weakening traditional marriage, the nuclear family and prayer in schools while promoting homosexuality and undermining Christian churches...The U.N. also uses the International Baccalaureate Program to teach a socialist agenda to U.S high school students [emphasis added]. (Highlands Today [Florida], 2011)

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According to the literature, the perceived close connection between the IB and the UN has been an ongoing issue for the organization in the US (Bunnell, 2009, 2012), and appears to have become heated enough for the IB organization to issue an official response disavowing any connection to the UN or UNESCO (IBO, 2008). Evidence for this discourse occurred only during this 2011-2012 period in the IB corpus, suggesting that it could have been a brief flare-up which has now disappeared. However, a recent study by Bittencourt and Bustamante Callejas (2023) suggests that the ideological divide between advocates for and against the IB is in fact much more pronounced today.

5.3.2. Evaluative: rigorous, prestigious, demanding, challenging

Once they appear in the second time period (1988-1998), four evaluative attributes (rigorous, prestigious, demanding, challenging) become consistent for the remainder of the time periods. The year by year analysis conducted in the first stage had shown that these collocates occurred in every year from 1995 onwards, at a time when the organization appeared to be facing financial difficulty (IBO, 2024b). Concordance analysis showed that although the collocates themselves remained consistent, the way in which they were used changed over time. In the first two time periods, more variety was evident, while this seemed to change in the subsequent two time periods. A sample of concordance lines for the collocate rigorous is presented in Figure 2.

Figure 2. Concordance for rigorous as a collocate of IB 1999-2009

As can be seen in Figure 2, the collocate rigorous occurred most frequently in the L1 position, even though the collocation span was set at 5L/5R of the node. In other words, it does not appear nearby the node but immediately next to it, more like a lexical bundle or...
a multi-word unit, as if it has become part of the name. This type of formulaic usage becomes more noticeable when the IB appears in a negative context, as in the following concordance line:

(6) They regard desegregation as a cynical maneuver by whites to soothe their consciences while establishing elite "schools within schools" to preserve their advantages. In Durham, for example, black leaders have campaigned against establishing a rigorous international baccalaureate program [emphasis added] at Hillside High School, calling it an instrument of "white power." (Star Tribune, 1996)

Evaluative attributes displayed a greater variety in terms of usage in the first two periods, such as rigorous academic preparation, rigorous advanced courses, rigorous curriculum and prestigious awards, prestigious universities, prestigious college, whereas the formulaic phrase or tri-gram became more dominant in the later two time periods. This formulaic usage of the attributes with the IB became visible only through repetition in the large amounts of data, providing a way to uncover ‘non-obvious meaning’ (Partington, 2017) and incremental effects of discourse (Baker, 2006). Based on Hoey’s (2005) theory of lexical priming, we might predict that the attributes have become so closely associated with the IB that they could be thought of even when they are not explicitly mentioned. As noted by Doherty (2009), ‘if the IB is seen to “own” the qualities of “academic rigour”, “challenge”, “well-roundedness”, such claims create and promote a perception of their absence in other curricula’ (pp. 12-13).

Analysis of concordance lines showed evidence of such comparative statements that made other education systems appear deficient, such as best kind of college preparation, taught universally, and goes beyond the regular high school curriculum. Evaluative statements also extended to those enrolled in IB programs, such as attracts top students, highly motivated students, gifted students. Similar patterns were found for prestigious, demanding, and challenging, which also changed from varying usage in the earlier time periods to most frequently occurring in the L1 position in the later time periods. Thus, although these attributes had been identified as strong collocates in the synchronic part of the research, this development in usage only came to light in the diachronic analysis.

5.3.3. Other curricula

As can be seen in Table 4, the corpus shows the absence (Partington, 2014) of specifically named other curricula in the first time period (1977-1987), which is not surprising since the IB was still relatively unknown. However, when concordance lines and full articles were analyzed, comparative statements did become evident. For instance, while the focus in this sub-corpus was on different aspects of the IB curriculum and how it might prepare high school students for college/university (e.g., college prep course, academic accelerated two year curriculum, accepted at many universities), other statements were found that suggested a ‘scandalization’ discourse (Steiner-Khamsi & Dugonjić-Rodwin, 2018), where national education systems are attacked for a range of deficiencies.

(7) The International Baccalaureate program, administered in Geneva, Switzerland, and used by schools in more than 40 countries, is a two-year course designed to challenge "academically
talented" students with higher expectations. Such programs, along with magnet-school arrangements, are often cited by school officials as an effective way for public schools to recover students who in recent years have been going the private rather than public education route [emphasis added]. (San Diego Union Tribune, 1985)

(8) Students looking for "real education" will find it at Victoria Park Secondary School this fall when the public school becomes the first in Ontario to offer university level programs. The International Baccalaureate (I.B.) program, to be offered in the last two years of high school... [is] a "demanding" program that will keep students buried in books and working in the community if they want to make the grade [emphasis added]. (Toronto Star, 1987)

This comparative trend persists across the other three time periods, with more education systems being added as the IB has expanded its operation around the world. In other words, the evaluative attributes remain consistent but what seems to change are the quantity and types of other education systems that are added for comparison.

5.3.4 Institution and regulation

These two semantic fields have been grouped together in this analysis because they are closely related. In terms of institution-related collocates, Table 4 shows a semantic shift from schools and colleges in the first two time periods to the IB organization (ibo, organization, organisation), its regional offices (ibsca [IB Schools and Colleges Association, UK]) and schools engaged in the application process to join the IB (candidate) in the later two. At the same time, the collocates accredited and authorize/authorise appear in the regulation semantic field. The year-by-year analysis had shown that accredit occurred from 2005 onwards. Interestingly, this shift seems to have coincided with changes in IB leadership, which saw the arrival of a new Director General from a business background in 2005, with a mandate to raise funds for the organization as well as increase the number of schools in the network. At first glance, these two lexical items appear to be used synonymously, with no differences apparent in how they are used in context, with the IB organization sometimes ‘authorizing’ or ‘accrediting’ schools to offer their programs. Variation in usage could possibly be the result of different registers or styles, as with differences found in spelling (e.g., authorize/authorise) or acronyms (e.g., ibd/ibdp/dp), but concordance analysis showed no such evidence.

(9) Although the school district plans to launch the magnet program at the new high school, it first must be authorized by the International Baccalaureate Organisation in Geneva, Switzerland [emphasis added]. (Tampa Tribune, 1994)

(10) Two Formby comprehensives have become World Schools. Range and Formby high schools received the accreditation from the International Baccalaureate organisation and given the green light to teach its global education diploma programme for students aged 16 to 19 [emphasis added]. (North Liverpool Daily Echo, 2008)

To see how these words were used outside the IB corpus, a search on COCA was conducted, which found that there appeared to be a semantic difference between the two based on the words with which they kept company. For example, authorize attracted lexical

items related to the theme of political administration such as defense, congressional, fiscal, statutory, while accreditation seemed to refer to professional or external bodies and standards, such as recognition, standards, healthcare, education, professional. COCA also showed that the frequency of occurrence for accredit* remained stable over time (2010-2019), with no spikes in any one period, with the highest use of the word occurring in the Academic-Business domain (184.72 per million tokens [pmt]), three times more frequent than in the Academic-Education domain (61.81 pmt) (Figure 3).

Figure 3. Results for accredit* across domains from 1990-2019

Based on the COCA results, there appears to be some slippage in usage between accreditation and authorization in IB discourse, particularly regarding the process of accreditation, which is generally done by an external body whereas the IB organization appears to be accrediting its own programs. According to the literature, ‘accreditation’ appeals to governments and other stakeholders as a symbol of quality assurance (Cambridge, 2002; Fitzgerald, 2017; Steiner-Khamsi & Dugonjić-Rodwin, 2018). So could the use of this word be a deliberate strategy on the part of the organization at a time when it is under new leadership from a business rather than education background (IBO, 2006)?

5.3.5 People

As can be seen in Table 4, the semantic field for ‘people’ consists of two types, students, referred to in a variety of different ways, and an organizational representative referred to as the IB coordinator. Although this collocate was also found in the synchronic part of the study, its significance, i.e., the fact that more importance seems to be given to the IB offi-
cial in this semantic field than other educational actors such as teachers, was muted in the aggregated results, but stands out much more emphatically in the diachronic analysis.

The word coordinator is absent in the first time period but is consistent across the subsequent three time periods. The year-by-year analysis showed that the first occurrence for this collocate was 1998, which marked the 30th anniversary for the organization. The role of the IB coordinator is to serve as the liaison between the organization, the particular school and the wider community in which the IB is operating. Concordance lines showed that the most frequent pattern for the collocate coordinator in the L1 position was ib coordinator (573 instances, 18.47 pmt) rather than international baccalaureate coordinator (143 instances, 4.61 pmt), indicating the prevalence of the brand over the organizational name. The use of the acronym ‘IB’ to modify a variety of actors has been noted in earlier studies (Fitzgerald, 2018) and shows how the notion of a singular universal ‘IB World’ gets constructed in language through the use of labels.

As shown in Figure 4, when concordance lines were sorted to the left of the node, an unexpected pattern came to light though it fits the ‘hindsight post-dictability’ type of finding (Partington, 2017, p. 362). The sample of concordance lines illustrates a recurring pattern in which the source of information is the IB coordinator, which may provide one explanation as to how discourses about the IB tend to be similar across diverse contexts. As mentioned earlier, the use of language is of great importance for the IB organization and forms a key part of the training that members have to undergo (Bunnell et al., 2019).

Figure 4. Concordance lines for coordinator for three time periods
6. Discussion

The diachronic analysis of *international baccalaureate* revealed how discourses changed over time, thereby pointing to an entity that is discursively constructed rather than static or fixed. Trends across time revealed a notable shift from concrete curriculum-related lexis to recurring value-laden terms, suggesting that the IB appears polysemous and indicating how this polysemy developed over time. This aspect of the IB only comes to light through the analysis of large amounts of non-IB generated data that reveals how the IB’s polysemy creates a space for a ‘projection screen’ (Waldow, 2019), which allows it to mean different things in different contexts according to stakeholder need, and thus to appeal to countries across the ideological spectrum.

Early descriptions of the IB exhibited few recurring patterns of language, instead showing more idiosyncratic usage depending on the context, such as the program of IB courses available in particular schools (*united world college, magnet*) or different aspects of the diploma, which was the only IB curriculum available at this time (*two-year, college-prep, university entrance*). However, once other IB programs did become available, continuing presence of the diploma program in the sub-corpora suggests one reason why dominant perceptions of the IB may be so entrenched. A shift from curriculum and university admission to value-laden statements became evident in the second time period (1988-1998). Evaluative attributes evolved into more formulaic usage over time, exhibiting the qualities of a multi-word unit that, through repeated positive references to the IB, made other curricula appear deficient or inferior and contributed to the ‘scandalization’ discourse. According to Steiner-Khamsi and Dugonjić-Rodwin (2018), the growth of government partnerships with private education providers such as the IB is closely tied to the ‘scandalization of public education’, where national curricula are attacked for a range of deficiencies such as curricular rigour, teacher quality, and grade inflation. In such contexts, the IB is presented as a model or solution for whatever the problem might be.

Tied to the scandalization discourse was the growing emphasis on institutional regulation (*accreditation, authorization*), a key aspect of the IB organization’s financial operations and revenue generation, i.e., more member schools mean more fees. However, ‘accreditation’ typically involves an external body doing the evaluation, but here the IB seems to be accrediting its own programs and schools. Researchers have noted that accreditation and standardization, key components of GERM, also appeal to governments that are under pressure to reform education systems (Adamson *et al*., 2016; Steiner-Khamsi & Dugonjić-Rodwin, 2018; Zajda, 2021). This may help to explain why in the past four months, the ministries of education in six countries (India, Japan, Lebanon, Spain, UAE, Uruguay) have agreed to offer and/or expand IB programs within their public education systems (IBO, 2024a).

In addition to the changes that became evident through the diachronic analysis, findings also showed that no matter how the corpus was sliced, a core group of consistent collocates (*diploma, program, rigorous, accreditation, coordinator*) appeared in the later three
sub-corpora, indicating that the core meaning of international baccalaureate seemed to remain the same. This is interesting given that the corpus consists of press articles from 56 countries and thus variation in representation might have been expected. What comes through instead is the monolithic IB World, constructed in the same way, which thereby maintains the idea of a single curriculum that is the same everywhere.

In order to explain the findings, it was important to step outside the corpus and link linguistic patterns to the wider social context. For example, the frequency and consistency of evaluative attributes such as rigorous, prestigious, demanding and challenging became apparent during the tenure of Roger Peel, the Director General responsible for the organization at a time of financial crisis. Similarly, the appearance of business-related lexis such as accreditation became evident when Jeffrey Beard, a former CEO, took charge, again at a time of financial difficulty. Most recently, the newest DG Olli-Pekka Heinonen partnered with Organisation for Economic Co-operation and Development (OECD) to ‘shape the global education conversation and policy (OECD, 2023). Thus we can see that different DGs and their mandates may influence and shape the way the IB is talked about.

7. Concluding thoughts

‘Patterns are meanings’, said Partington (2017, p. 344). Presence, absence, serendipity and surprise all become possible with CADS (Partington, 2018), with the iterative nature of the methodology making it possible to notice patterns that would not be seen in casual encounters with the topic.

This brings us to the question of the ‘so what?’ If we think back to the issue of the GERM that was mentioned earlier, and how it infects education systems worldwide, the diachronic analysis of global press articles shows how the global education industry and the non-state actors – in this case the IB – work to undermine local (national, provincial or state) education systems. For example, one headline from the Daily Telegraph read ‘A-levels need rigour’ (‘A-levels need’, 2008). Based on the consistent collocational pattern found between rigour and the IB, we may be primed (Hoey, 2005) to expect that the comparison being made here must be with the IB. Whilst in this example the comparison is explicit, the diachronic corpus analysis showed how this was achieved in a systematic and sustained way by implication. Thus, in order to transform the narrative of education as proclaimed in the Global Education Monitoring report (UNESCO, 2021), the first step is to recognize how the existing narrative comes to be (Partington & Marchi, 2015).

Acknowledgements

I am very grateful to Michael Fitzgerald and two anonymous reviewers for their invaluable feedback.

Competing interests

The author has no competing interests to declare.

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