

Academic Honesty in the International Baccalaureate Diploma Programme: Student, Teacher, and School Perspectives

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ABSTRACT

Much of the existing research on academic integrity surveys students. This study compares survey responses of students, teachers, and school administrators from schools in 76 countries worldwide. The surveys addressed their knowledge, understanding, and attitudes toward academic honesty, how it is taught at their school, as well as school experiences. Results indicate that students mostly learn about academic integrity in the classroom. Most schools have a process to ensure students know about academic honesty, but half of schools indicate there is no similar process for teachers. State schools rely significantly more on student and teacher initiative to refresh or check their knowledge, such as accessing handbooks, and less on offering targeted student or teacher academic integrity training, than private schools.

Keywords: academic integrity, administrators, Diploma Programme, students, teachers

INTRODUCTION

Academic honesty issues are a growing concern, with mounting research showing that misconduct is widespread in many countries among both high school and university students (e.g., Barnhardt, 2016; Eaton et al., 2019; Fass-Holmes, 2017; Sureda-Negre et al., 2015; Winrow, 2015). Stephens and Wangaard (2013) referred to academic dishonesty as an epidemic, affecting nearly every student. The proportion of students who undertake dishonest behavior—either intentionally or unintentionally

(Barnhardt, 2016)—is potentially increasing (Fass-Holmes, 2017; Mohr et al., 2011; Strom & Strom, 2007). Unless a deep and lifelong understanding of the importance of academic integrity is developed, the increasing integration of technology in learning (Cranmer, 2006; International Baccalaureate Organisation [IBO], 2014; Jones et al., 2013), which allows simply copying and pasting without proper acknowledgment will exacerbate the problem (e.g., Sorgo et al., 2015). Cronan et al. (2018) summarized the literature on factors explaining academic integrity behaviors including perception of social norms, moral obligations (e.g., feelings of guilt), behavioral controls, and past cheating behaviors. If indeed students in younger age groups are at greater risk of lapses in academic integrity (Stephens & Wangaard, 2013) and consequently of reoffending, it is necessary to examine how such an understanding can be developed at secondary school level.

The International Baccalaureate (IB) programmes are offered to students aged 3 to 18 in 150 countries and territories worldwide (www.ibo.org) and attract many students who choose to widen their horizon by learning and working daily in a language other than their mother tongue. The programmes are international because they are developed independently of government and national systems, incorporating quality practice from research as well as our global community of schools and teachers, and encouraging students of all ages to consider both local and global contexts (IBO, n.d.-a). All authorized IB schools are required to implement an academic honesty policy, guiding students how to correctly acknowledge the use of other people's work and ideas, engendering a culture of academic integrity in both students and staff, and developing students' lifelong understanding of academic honesty. The strict standards are upheld by the IB during exam sessions of the Diploma Programme (DP, ages 16 to 18) and the Middle Years Programme (MYP, ages 11 to 16).

The DP is a challenging 2-year educational programme offered by many international schools with a culturally diverse student population (Higher Education Statistics Agency, n.d.; IBO, 2014), as well as by national and state schools worldwide. It provides graduates with access to universities and further education across the globe. Students pursuing a full IB Diploma Programme must complete six subjects (including two languages from 200 offered) and the core comprising of three components (IBO, n.d.-b). The IB offers two examination sessions per year (May and November), in at least three languages: English, Spanish, and French. Each exam session, the IB investigates possible academic misconduct cases, following up on whistleblowing as well as using plagiarism and pattern detection software tools. Every session the IB is confronted with multiple cases of academic misconduct, with potentially far reaching consequences such as students not receiving grades for certain subjects and ultimately failing to obtain their diplomas.

Many efforts have been made to cultivate the academic integrity of students—for example, by teaching ethical philosophy (Seider et al., 2013) or promoting moral development (Stephens & Wangaard, 2016). While establishing effective policies should help to decrease the prevalence of academic misconduct (Hughes & McCabe, 2006b), engaging students with academic honesty policies can be extremely difficult, and the way the policies are taught and shared may be less than effective (Perry, 2010; Stoesz & Yudinseva, 2018). Introducing academic integrity in an interesting way is

vital (e.g., Bingham et al., 2016). Actively teaching correct academic conduct and the modeling of good practices by teachers early on can mold students' values and attitudes (e.g., Bretag et al., 2014).

Because much of the available literature regarding academic integrity or cheating has focused more on examining the prevalence of academic misconduct and less on how it is taught, it is not entirely clear what exactly should be taught and which practices are most effective (Löfström et al., 2015; Stoesz & Yudintseva, 2018). Research based on students' self-report of their cheating behaviors and the reasons behind them, have identified a range of reasons aside from not knowing or understanding the rules, such as the need to improve grades, laziness or lack of time, heavy workload (Geddes, 2011), stress or fear of not having studied enough, pressure to succeed (Khalid, 2015), and past cheating behavior (Cronan et al., 2018). Studies exploring cultural influences have documented observed differences in values systems and understanding of concepts (Hofstede et al., 2010), affecting which behaviors are considered a violation of academic integrity (e.g., Bretag et al., 2014; Cronan et al., 2018; Szilagy, 2014) and not simply, for example, an accepted way to help peers (e.g., Bacha et al., 2012; Balbuena & Lamela, 2015; Sorgo et al., 2015; Winrow, 2015). In an international setting, these differences may put students at greater risk of unintentionally committing breaches of academic honesty policies.

Studies examining different response groups show that students, teachers, and school administrators may differ in their attitudes toward behaviors that can be linked to academic misconduct (e.g., Hudd et al., 2009; Sorgo et al., 2015), or, when they do agree which behaviors are dishonest, they may disagree about the severity of actions (Bacha et al., 2012; Hudd et al., 2009; Hughes & McCabe, 2006a; Khalid, 2015; Pincus & Schmelkin, 2003). To our knowledge, no previous studies have triangulated all three perspectives within schools: students, teachers, and school administrators.

In 2015, the IB undertook a worldwide survey with the aim of understanding current school and teaching practices surrounding academic honesty, the students' experience of these, and the differences between stakeholder groups. The purpose of this study was to provide evidence to support the development of recommendations, improved procedures, and support materials, helping schools to create an effective culture of academic honesty. This study contributes to academic understanding how students, teachers, and institutional leaders understand academic honesty, how it is taught and communicated (Bretag et al., 2014) in an international context, and how the three stakeholder groups may differ in attitudes and experience.

The following research questions are addressed in the study:

1. What are DP students', teachers', and coordinators' attitudes toward a range of academic honesty behaviors?
2. How do DP teachers and schools teach academic honesty to DP students and what do students recall of these efforts?
3. What do DP students, teachers, and coordinators know of the school's academic honesty policy?
4. What actions do DP schools, teachers, and students undertake when academic misconduct is suspected or occurs?

METHOD

Design

To capture the understanding of academic honesty rules, teaching practices, and experiences over the 2 years of the IB DP, a survey was administered to DP students, DP teachers, and DP coordinators several weeks (for schools offering May exams) to half a year before the final exams (for schools offering November exams). DP coordinators are usually teachers with an administrative and coordinating role responsible for ensuring schools comply with IB rules and regulations. DP coordinators are the point of contact between IB and the school and represent the school's perspective on implementation of the IB programmes. Three surveys were created, and data collection was staggered with the student survey first (March 2015), followed by the teacher and coordinator survey (April 2015).

A random sample of schools offering the full DP was drawn, stratified by IB region and legal status (state vs. private schools). The four IB regions used in this study were IB Africa, Europe, and Middle East (IBAEM), IB Asia Pacific (IBAP), and the IB Americas region divided into IB North America (IBNA) and IB Latin America (IBLA). IBNA and IBLA differ in dominant language of instruction and timing of the exam session. The survey recruitment information to schools explained the aim and purpose of the study, and asked DP coordinators to provide direct email addresses for students with parental consent, and for teachers who had given informed consent. A personalized link to the survey was sent individually to each participant. All consent forms, information, and data collection materials were vetted by an independent ethics review board.

Participants

Of the 1,159 schools invited, 332 agreed to participate (a 28.6% response rate), and 167 provided the required student and teacher contact information, resulting in a sample of 2,153 IB DP students (a 29.1% response rate, and approximately 3.2% of all DP students registered for exams in 2015; IBO, 2015), 1979 teachers (a 48.0% response rate) representing schools in 68 countries around the world (48.6% of countries where IB DP is offered). All students and teachers included in these results confirmed their informed consent in the survey.

Compared to the overall DP student population of 2015 (55.8% female, 216 nationalities; IBO, 2016), the student sample displayed slight female overrepresentation (59.4% women, 36.4% men, and 4.2% other/don't want to say). The participating students were born in 121 countries, with more than half (57.5%) attending an IB school in their country of birth. About 70% of their parents (either mother or father) had a university bachelor's degree or higher. Of the 2,153 students, the majority (93.5%) responded in English, which was either their first language (49.1%) or their school's language of instruction. Due to a much lower response rate from the schools in IBNA (19.3%) than in the other three regions (42.2%), students from state schools in North America were underrepresented in the sample, while students from private schools in IBAEM and IBAP were overrepresented.

The DP teacher sample presented a small female majority (55.7%, with 40.2% men, and 2.2% other/don't want to say). About 20% of the teachers had experience as a DP examiner or MYP moderator.¹ About two thirds of them were between 30 and 50 years of age, all were highly educated (95% with a university degree) and experienced—45.1% with 11 or more years of experience teaching their subject and 60.5% having taught their IB DP subject for 5 or more years. Almost all filled in the survey in English (93.6%), with 68.4% reporting that English was their first language, and 24.8% responding in their school's language of instruction.

The DP coordinator sample represented 294 schools (88.5% response rate) in 76 countries (54.3% of countries where IB DP is offered), comprising 58.5% women, 34.0% men, and 7.5% other/don't want to say, and, although slightly older (30.3% aged between 50 and 60 years and 51.0% between 30 and 50 years of age) with comparable levels of education to the teacher sample. Three quarters filled in the survey in their own first language (57.8% in English, 12.6% in Spanish, and 2.4% in French) or in their school's language of instruction. Coordinators were often also DP teachers (69.4%) and had experience as a DP examiner or MYP moderator (33.7%) more often than the teachers. Compared with the school population offering IB DP comprising nearly equal shares for private and state schools across the globe, the DP coordinators sample overrepresented private schools (63%).

Data

The surveys were designed so that target groups provided responses on issues that overlapped, allowing for meaningful comparisons to be made. The surveys were created in English and translated by IB translation services into French and Spanish to allow respondents to reply in their preferred language. Question items addressing attitudes toward cheating were adapted from existing survey items (Balbuena & Lamela, 2015), creating a link to comparable surveys in the literature. The questions regarding the content of the school's academic honesty policy were created following an analysis of a sample of 45 IB DP school policies worldwide. This analysis, as well as existing literature, informed the formulation of the questions regarding access to and sharing of the school's policy with all stakeholders including parents, school support and recommendation practices, training offered, teaching practice, as well as personal experience with integrity breaches.

Design of the Survey Instruments

In this study, self-reported student recall and practice is used as a proxy to gauge the effectiveness of a schools' efforts to create a culture of academic honesty. This requires triangulation of comparable responses from the three response groups on a range of questions that are appropriately adapted to capture each response group's understanding and practice. A review of prior research briefly summarized below provides the rationale for scope and specific questions included across the three

¹ A moderator performs an external check of the marks awarded by the teacher against the accepted IB standard.

response groups in this study. Contrasting students', teachers', and school administrators' perceptions of academic honesty creates a map of the current practice and understanding, potentially highlighting particular behaviors to which teachers and schools could pay more attention when encouraging academic honesty.

The quality of an institute's academic honesty policy is fundamental to its success. Bretag et al. (2014) identified the three most important core elements of an exemplary academic integrity policy:

- access (easy to locate and read),
- detail (definitions, explanations, and responsibilities regarding academic integrity) and
- support (proactive and embedded processes to enable implementation of the policy; Hughes & McCabe, 2006a).

Understanding student and staff knowledge of their school's academic honesty policy content, and how it is communicated, made available, and supported will inform the evaluation of the effectiveness of the school's strategy and efforts regarding sharing the policy, and aligning policy, practice, and process. Contrasting stakeholder response patterns regarding these aspects provides insight into the message being shared and how it is interpreted, as well as identification of areas needing further development.

Examining what academic honesty practices schools recommend that teachers teach, what teachers indicate they have taught, and what students say they remember and understand, provides evidence regarding the effectiveness of current teaching practices. Students do not always recall what teachers indicated they have taught (e.g., Vermunt, 2006) and, similarly, teachers do not necessarily always cover certain topics that schools recommend them to teach. Therefore, comparing the responses from different stakeholders can reveal the extent to which a culture of academic integrity is actually shared, taught, and understood within a school community.

Teachers' and school staff's personal experiences with breaches and how schools handle these situations, is likely to influence perceptions about the culture of academic integrity within the school. A low perceived risk of being caught because school standards are not upheld for a variety of reasons such as lack of evidence, support, or time (Cronan et al., 2018; Hughes & McCabe, 2006a) may contribute to students knowingly committing academic dishonesty (Barnhardt, 2016). Examining the response patterns across stakeholders within schools informs further guidance toward how schools and teachers can best handle such cases.

Analysis

Comparisons across response groups were performed using IBM SPSS Statistics 22, describing current practices in schools and their effects on each response group's knowledge and understanding of academic honesty, using chi-squared tests to report statistically significant differences between groups. Where statistical differences between state and private schools were observed, comparisons are presented separately. No gender differences are reported here.

RESULTS

The results presented provide a unique perspective on academic honesty in an international environment at the high school level. Three perspectives within the same institutes are compared, providing a framework to evaluate the effectiveness of current school practice, where effectiveness is defined as the degree to which it results in student understanding of, and behaviors compliant with, IB rules and regulations regarding academic honesty. Although initial results were shared as a conference presentation (Hamer et al., 2016), the results presented below are published here for the first time and follow the topic sequence of the research question.

Attitudes Toward Cheating Behavior

Regarding their perception of cheating behaviors, Figure 1 shows that, for almost every type of behavior, the proportion of respondents indicating it was serious cheating decreases from coordinators (highest) to teachers to students (lowest). One noticeable example is working together on an assignment when the teacher has requested individual work: Over half of coordinators (52.0%) considered this cheating, whereas just 16.0% of students did.

An exception is reading an abridged version of a book instead of the original, with slightly more teachers indicating it is serious cheating (12.5%) compared with coordinators (10.9%) and students (6.4%), but the proportion of those who found this to be serious cheating was lower than for most of the other types of behavior in every response group. Reading an abridged version of a book and reading a language assignment in a different language than assigned was also less frequently considered serious cheating in all response groups.



Figure 1: Attitudes Toward Cheating Behaviors—Comparison of Response Groups

Teaching Academic Honesty

To establish current practices in teaching academic honesty, DP students and school coordinators were each asked a series of questions regarding the teaching practices at their school. Most students recalled having received training on the types of referencing activities often associated with academic honesty, such as making a bibliography (90.1%), how to avoid unintentional copying (78.7%), and how to include quotations (84.9%). Other potential sources of academic honesty breaches, such as how to include translated texts from the internet (48.6%) and how to include students' own, earlier work in a new assignment (25.9%), received less attention. Practices that were clearly taught less often included how students can document their share of work in a group assignment (50.2%) and the modern concern of social media use when sharing work with others (48.2%).

The first two columns of Table 1 contrast students' recall of receiving training on the different issues surrounding academic integrity since starting the DP, with the proportion of DP coordinators recommending teachers to provide training on these topics. The data in these first two columns present a pattern where coordinators most often indicate that their school recommends training on a topic, more often than students indicate they recall having received such training in the 2 years of the DP.

The final column of Table 1 presents the proportion of DP teachers indicating which of these topics were taught in the 2 weeks prior to the survey. It demonstrates ongoing attention to academic honesty in class—all topics had been addressed to some extent by teachers, with an understandable emphasis on work planning given the proximity of submission deadlines and the May exam session.

Table 1: Training in Academic Honesty Practices (%)

Academic honesty practice	Student	Coordinator	Teacher
Make a bibliography	90.1	93.2	73.9
Include quotations	84.9	91.2	58.1
Avoid unintentional copying	78.7	84.0	62.8
Plan work	72.8	92.5	80.9
Include images/ graphs	69.0	87.4	50.2
Document your share of group work	50.2	61.2	33.1
Use social media to share work	48.2	63.9	27.0
Include (translated) texts from the internet	48.6	66.7	32.3
Include earlier work in a new assignment	25.9	52.4	22.3

Note. Options include student recall across the Diploma Programme, coordinator recommendations to teach, and recent training provided by teachers.

Communicating Academic Honesty in School

The extent to which students and teachers are aware of the existence and content of the mandated policy, can be treated as an indicator of a school's culture of academic honesty. Students and teachers were asked if they knew whether their school had an academic honesty policy (or a similar document called by a different name). Most students (71.9%) and teachers (82.6%) reported knowing that their school had a policy and how to access it. Private school teachers were significantly more likely to be aware of their school's academic honesty policy than teachers at state schools ($\chi^2 [2, N = 1,979] = 75.72, p < .001$), while this pattern was not observed for the students.

All three response groups were asked how schools ensure students and teachers are sufficiently knowledgeable of the academic honesty rules. The most common formal school processes that students mentioned are (a) requiring students to sign a declaration or document stating that they are aware of the policy (61.2%), and (b), when submitting work, mandating a student pledge (42.8%) or a signed declaration (32.7%) regarding the originality of the work. It is noteworthy that these processes were mentioned less frequently by teachers (a signed document declaring awareness of the policy, 45.1%; a mandated pledge when submitting work, 30.7%; and providing a signed declaration of originality, 28.8%) and coordinators (51.0%, 31.3%, and 30.6% respectively). More than one in five students (22.2%) did not know how their school ensured that students were made aware of the academic honesty rules, while about as many schools, as represented by coordinators (18.7%) and almost one in three teachers (30.3%), said they did not know or did not recall any formal process to ensure students are aware of the rules.

About half of teachers (51.7%) and schools (coordinators, 48.3%) indicated that, to their knowledge, there is no formal process in place to ensure that teachers are made aware of the academic honesty rules. Almost a third of teachers (29.9%) and schools (30.8%) indicated that teachers are offered professional development courses on academic integrity, and about one in 10 schools (10.9%) required teachers to sign a document (11.5%). Compared with teachers at state schools, teachers at private schools were more likely to attend classes on academic honesty as part of their professional development ($\chi^2 [1, N = 1,979] = 75.72, p < .001$) and were less likely to indicate that there is no formal process at their school ensuring teachers' awareness of academic honesty rules ($\chi^2 [1, N = 1,979] = 38.41, p < .001$). Significantly fewer coordinators from state schools than from private schools indicated that teachers at their school are required to sign a document stating their awareness of academic honesty rules ($\chi^2 [1, N = 294] = 7.08, p = .008$).

Knowledge of the School's Academic Honesty Policy

Respondents were asked both how and where they could find out about the academic honesty rules. The responses demonstrated a clear pattern where private schools offered more targeted school activities to students and teachers to learn about academic honesty, such as library lessons or seminars, while state schools relied more on less formal ways that depend on students' and teachers' own initiative. For

instance, compared to private school students, state school students aware of the school policy were more likely to have been informed of the rules in class ($\chi^2 [1, N = 1,526] = 30.45, p < .001$), by accessing a handbook ($\chi^2 [1, N = 1,526] = 12.01, p = .001$), or consulting summaries of the rules available in classrooms ($\chi^2 [1, N = 1,526] = 24.61, p < .001$) or on the school website ($\chi^2 [1, N = 1,526] = 23.30, p < .001$). Teachers at state schools were more likely to learn about the rules from the school website ($\chi^2 [1, N = 1,979] = 11.70, p < .001$) than from a targeted lecture, library session, seminar, or online unit ($\chi^2 [1, N = 1,979] = 22.04, p < .001$; $\chi^2 [1, N = 1,979] = 17.15, p < .001$; $\chi^2 [1, N = 1,979] = 55.59, p < .001$; $\chi^2 [1, N = 1,979] = 11.70, p < .001$, respectively).

One survey question explored the response groups' recall of their school's academic honesty policy content. It was more common for coordinators to answer that the policy definitely contained various aspects than it was for the teachers and students, while they were also more likely to answer that an aspect definitely was not included (Figure 2). For example, 89.9% of coordinators indicated that the policy definitely contained a definition of academic honesty or misconduct, compared with 75.0% of teachers and 62.9% of students. For many of the options, fewer students indicated their recall of aspects included compared to teachers and coordinators.

If we assume coordinators are most knowledgeable of schools' academic honesty policies, it is noteworthy that for each of the content aspects there are coordinators indicating it is not included. Most unexpected is perhaps that there are school policies that, according to those responsible for the content (i.e., DP coordinators), probably or definitely do not include aspects that may be considered the bare minimum of information required (Figure 2):

- a definition of academic honesty, misconduct or list of examples (3.2%);
- a paragraph on the relevance of academic honesty within the IB (13.6%);
- a list of possible disciplinary measures, including potential exclusion from DP exams (6.2%).



**Figure 2: What is in your school’s academic honesty policy?
Comparison of Responses**

Actions when misconduct is suspected

To establish what respondents knew about actions that students, teachers, or their school would or should consider taking in the case of suspected or proven misconduct, all groups were asked what students were expected to do if they suspected another student's academic misconduct. The most common response from students, teachers, and coordinators was that the student should report it to a teacher (53%, 48%, and 50%, respectively). This was followed by reporting it to school advisor (26%, 21%, and 22% respectively) or other school staff (15%, 16%, and 25% respectively). The biggest difference between response groups was that just 1.0% of coordinators were not sure what students should do compared with 6.0% of teachers and 12.0% of students.

Regarding the specific actions taken in the case of suspected misconduct, the most common action mentioned by coordinators (75.8%) was that the student would be reported to their parents, whereas just 43.8% of students mentioned this. Students and teachers most commonly thought that the nature of the misconduct would be investigated (59.4% and 71.8%), while for coordinators this was the second most often mentioned action (74.1%). More than half of coordinators indicated the school used plagiarism checking software (61.6%), which was well known among teachers (58.0%) and students (50.4%).

Respondents were asked which disciplinary measures students at their school would face in the case of proven academic misconduct (Table 2). There was an interesting pattern of a higher percentage of coordinators and students than teachers answering that certain measures would be taken for many of the options. A high percentage of students (21.6%) answered that they were not sure.

Table 2: Disciplinary Measures International Baccalaureate (IB) Diploma Programme Students May Face When Misconduct Is Proven (%)

Disciplinary measure	Student	Coordinator	Teacher
Redo assignment	38.4	58.8	50.1
Write an apology letter	11.2	15.0	13.0
Reduced or 0 marks for submitted work	57.9	72.8	58.9
Suspended from classes	17.8	20.1	15.3
Reduced or 0 marks for work missed during suspension	11.5	10.9	7.8
Suspended from extracurricular activities	11.7	11.9	7.7
Excluded from IB exams	16.0	15.6	10.4
Dismissed from school	8.8	11.9	6.9
School informs teacher of subject	63.3	56.5	39.5
School informs parents	47.3	77.6	39.8
School informs IB	23.5	31.6	17.5
Not sure	21.6	1.4	7.6

DISCUSSION

This study is of interest to the academic integrity research community because it presents a triangulation of student, teacher, and school administrator perspectives across an international setting, providing insight into knowledge of academic integrity across different countries and cultures. It expands Bretag et al.'s (2014) study on student knowledge and comprehension of academic honesty into the high school level. These results will inform the development of practices and resources to assist schools in the creation of a culture of academic honesty, which should benefit students during their studies as well as later in life.

What are DP Students', Teachers' and Coordinators' Attitudes Toward a Range of Academic Honesty Behaviors?

Confirming earlier findings (e.g., Bacha et al., 2012; Hudd et al., 2009; Hughes & McCabe, 2006a; Khalid, 2015), the comparison of student and teacher perceptions of behaviors considered to be cheating (Figure 1) reveals considerable differences between response groups, whilst the triangulation shows school coordinators being consistently stricter than both teachers and students. These differing opinions show the need for standards regarding cheating behavior to be communicated more clearly within schools.

The results of this study also show some interesting differences to Balbuena and Lumela (2015), with the majority of students in this study recognizing the six obvious cheating behaviors as serious cheating, e.g., copying from another student during an exam (78.9%) or using an unauthorized (digital) aid during an exam (92.2%). On the other hand, many of the students, teachers, and coordinators in our study consider actions that do not meet formal requirements—e.g., reading an abridged version of a book instead of the original or submitting work created with significant help from others (e.g., peers or parents)—as either minor cheating or not cheating (Figure 1). These results match the prevalence of “sharing homework” (Cronan et al., 2018) and may reflect cultural differences in the understanding of the concept of academic integrity (Bretag et al., 2014; Szilagy, 2014). While further research would be needed to clarify this, these findings suggest that to prevent some students gaining an unfair advantage, teachers need to discuss behaviors in class that are perhaps less obvious examples of academic misconduct.

It is worth noting that for each of the behaviors listed in Figure 1, there are small numbers of teachers and coordinators who do not feel a particular behavior counts as cheating. Some of these answers are completely unexpected as they refer to behaviors that one would expect these respondents to consider intentional examples of serious academic misconduct (Barnhardt, 2016), such as “helping someone else *cheat* on a test or exam” (emphasis added), “turning in work copied from another student,” and “turning in a paper obtained in large part from a term paper mill or website or from a book, journal or other source.” The small number of these responses prevents a more detailed analysis toward possible explanations, however they suggest that all three response groups may benefit from further guidance as to how the IB defines academic misconduct.

Equally concerning is that a small number of teachers and coordinators indicated that both “purchasing/selling/distributing exam questions or essays” or “getting questions or answers from someone who had already taken a test” were not cheating. It may be that the respondents interpreted the statements as referring to the IB practice of making past exam papers available for legitimate exam preparation; however, it may also point toward the need to ensure that school staff are aware of appropriate academic conduct.

How do DP Teachers and Schools Teach Academic Honesty to DP Students, and What do Students Recall of these Efforts?

Table 1, summarizing schools’ practice regarding teaching academic integrity, shows that the majority of students are trained in the more common referencing practices—that is, making bibliographies, including quotations in submitted work, correctly referencing images and graphs, and preventing unintentional copying—and as such, fewer students are at risk of committing inadvertent breaches of academic integrity due to insufficient guidance from their teachers.

Practices that seem less likely to be covered in class include how to

- correctly reference (self) translated texts from the internet in their work, particularly relevant to multilingual international students;
- document their share of work in a group assignment, and avoid referencing problems when sharing homework through social media; and
- reference previously submitted work when it is appropriate to do so, i.e. self-citation.

As internet use and social media become common in schools, increasing the potential for academic misconduct through sharing homework (Cronan et al., 2018) and (virtual and offline) collaboration in 21st century pedagogy, adequate training will become even more important. Schools should be aware of the need to incorporate these topics into current practices.

The level of student recall of particular types of academic honesty training (Table 1) would indicate that it is at least partially effective. However, the last column also shows that DP teachers—in the run up to submission deadlines for the final assessments for many students—were providing academic honesty training in the classroom at the time of the student survey, which may have boosted the levels of student recall.

What do DP Students, Teachers, and Coordinators Know of the School’s Academic Honesty Policy?

Compared to Bretag et al. (2014) who found that only 64.7% of students were aware of the academic integrity policy at their institute, more IB students (71.9%) and teachers (82.6%) knew that their school had an academic honesty policy and how to access it. However, this study also showed that about one in six teachers (16.2%) and

more than one in four students (28.0 %) were unsure about the existence of, or how to access, their school's policy. Teachers are unlikely to be able to effectively teach students about the school's policy if they are unsure of its existence or contents themselves.

Almost a quarter of students said they did not know how they were made aware of the academic honesty rules, suggesting that they have either not received any information or, if they have, that it was not memorable. Half of both teachers and coordinators claim there is no formal process in place to make the teachers aware of the school's policy, corroborating Hughes and McCabe (2006a), who reported low efforts by institutes to make faculty and staff aware of academic honesty policies and linked this to low levels of staff understanding of the policies. If no formal process is in place to remind teachers of the rules, academic honesty issues may not receive the appropriate level of attention in class, potentially disadvantaging the students. Clearly more can be done to improve upon awareness for both groups, such as providing courses for teachers as part of their professional development and requiring confirmation of originality of student work when submitted.

While recognizing the underrepresentation of state schools in the data, this study did examine patterns in the responses from private and state schools. There was a common pattern regarding how students and teachers were made aware of the school's academic honesty policy, where those at state schools were more likely to have found out the rules in less formal ways, such as from the school website or from other students or teachers. Conversely, it was found that students and teachers from private schools were more likely to have been offered targeted learning opportunities by their school. One possible explanation of these differences is that private schools may have more resources such as funds, library staff, and so on, enabling them to offer more targeted training opportunities to students and staff. The ineffectiveness of less targeted methods has been noted by other studies (Hughes & McCabe, 2006a) and may explain state school teachers' lower levels of awareness. It would be advantageous for all schools to introduce more active methods for students and teachers—for example, specific classes or information sessions where there is the opportunity to ask questions and discuss issues—and to ensure that teachers are fully equipped to become good role models of academic integrity.

Once a policy has been accessed, the level of detail of the information made available is crucial to its success (Bretag et al., 2014). Other studies investigating the content of student-facing academic honesty information (Bretag et al., 2011; Romerhausen, 2013) have not attempted to compare what three different response groups think is in their school's policy. The response pattern for many of the options in our survey (Figure 2) was that a considerably higher percentage of students indicated they did not know if aspects were included compared with other response groups, putting them at risk of inadvertent breaches. There is a clear need for information to be better communicated to all teachers and students, with coordinators ensuring that their in-depth knowledge is shared in detail.

Assuming that DP coordinators were the best informed, it was unsurprising that coordinators were more likely than the other response groups to answer that certain aspects were definitely included in their school's policy. For example, 73.1% of coordinators indicated that a list of possible disciplinary measures was definitely in

their school's policy. Fewer teachers (60.0%) were aware of this, and students, the group for which it would be most informative, were even less sure (57.5%). That not all policies include information on penalties is not unique. Bretag et al. (2011) found that in 18% of academic honesty policies at Australian universities this information was not stated. It should be noted that the survey reflects respondents' recall of the content and only an in-depth analysis of IB DP academic honesty policies would reveal accuracy of their recall.

Remarkably, some coordinators indicated omissions in their school's academic honesty policy (Figure 2), which would seem to comprise the bare minimum of information included in any school policy: a definition of the focus of the policy, the reason why the policy is necessary or required, and information on consequences in cases that go against the policy. Grigg (2010, p.61) found a similarly surprising result in Australia, with just 82% of policies defining or including documentation on plagiarism. Bretag et al. (2011) suggested that such failure to clearly define such important aspects can cause confusion surrounding academic integrity. Our results indicate that the IB can support schools better in creating a culture of academic honesty by providing guidelines regarding the elements recommended to include in schools' academic honesty policies.

What Actions do Schools, Teachers, and Students Undertake when Academic Misconduct is Suspected or Occurs, and How do the Groups Differ?

While ideally schools would embody a culture where students innately act with academic integrity, this may not be immediately attainable. In the meantime, schools will need to communicate how they deal with academic misconduct. For teachers, awareness of the procedures is the first step in being able to carry them out and create effective deterrents for students. For students, understanding the undesirable consequences can be a vital contribution to the decision not to breach the rules, while a perceived low risk of being caught and punished may contribute to deliberate breaches of academic honesty (Cronan et al., 2018; Hughes & McCabe, 2006a).

When asked what a student who suspects others of cheating should do, approximately half of each of the response groups indicated "reporting it to a teacher who would then investigate," suggesting that expectations throughout the schools are aligned. However, 10.8% of students were unsure what was expected, demonstrating students need more guidance from their schools about what to do in this situation.

About one in five students (21.6%) indicated they were not sure of the disciplinary measures applied in cases of proven academic misconduct, suggesting that they do not have an accurate picture of what could happen should they be caught (Table 2). Serious consequences were even less well known, with only 8.8% of students realizing they could be dismissed from school or excluded from taking IB exams (16.0%). In comparison, Hughes and McCabe (2006a) found that 43% of first-year university students answering retrospectively about their time at high school agreed that those caught cheating would be given significant penalties. Ensuring that DP students are aware of the existing IB penalties for academic misconduct, including those leading to students failing to obtain their diploma, would enhance their effectiveness as a deterrent.

Expectations regarding disciplinary measures for students who had broken the rules differed across the response groups (Table 2). For example, 77.6% of coordinators answered that the school would inform parents, compared with 39.8% of teachers and 47.3% of students. Interestingly, for half of the available options for this question, coordinators' and students' responses were aligned with both, indicating that they thought the measure would be used, while a much lower proportion of teachers thought this measure would be used. While it is possible that teachers considered the complexity in recognizing and establishing academic misconduct, which affected their willingness to indicate which measures a school could take if cheating is proven, the survey question simply asked to indicate which measures their school could enforce given the academic honesty policy or practice in their school. The teachers' response pattern, therefore, seems to indicate unfamiliarity with both their school's policy and practice. As previously discussed, schools need to increase their efforts to better inform teachers about the measures that are taken so that they can in turn effectively inform and prepare their students.

CONCLUSION

This article provides an insight into the current practices surrounding academic integrity in the IB DP. Although the underrepresentation of students and teachers from state schools in North America prevents us drawing conclusions by region, the study does allow meaningful and interesting conclusions to be drawn as summarized below.

The efforts of IB DP schools and teachers to teach the most common academic honesty practices are mostly effective; however, more attention is required regarding (a) referencing self-translated texts; (b) documenting individual contributions to group work; (c) possible inadvertent academic misconduct through sharing homework off-line or through social media; and (d) how to handle self-citation. On the other hand, DP schools could do more to communicate the content and importance of their academic honesty policies both to their students and teachers, ensuring that standards are clearly communicated throughout the school community. Specifically, schools should consider implementing formal processes ensuring that both students and teachers know about the academic honesty rules and regulations, including the potentially severe consequences of bending the rules. The IB must consider developing specific resources to support schools in this. Following the finding that a small number of school policies seemed to not include the minimal required information, the IB has made guidance available to schools to help them develop and review their academic honesty policies.

There are also some more puzzling results which merit further research. First, there are teachers and coordinators who indicated that a number of seemingly obvious academically troublesome behaviors do not constitute serious cheating. A larger teacher survey may shed light on this. Further, the current study does not examine the relationship between the breadth of content of school policy (as indicated by the DP coordinator) and student and teacher attitudes toward cheating behaviors, nor students' recall of classroom training in academic honesty behaviors (e.g., creating a bibliography, referencing graphs and images).

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