The Development of International-Mindedness: An investigation into how IBDP core components (TOK, CAS, and EE) foster students’ multilingualism, intercultural understanding and global engagement

Executive Summary

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Abstract

This executive summary reports students’ and teachers’ perceptions of the development of international-mindedness. The study investigates how the IB Diploma Programme core components: Creativity, Activity, Service (CAS), Theory of Knowledge (TOK), and Extended Essay (EE) foster three pillars of international-mindedness (multilingualism, intercultural understanding and global engagement). It uses embedded mixed methods to explore the perceptions of international-mindedness (IM) within two continuum schools in Istanbul, Turkey: a national school and an international school. The qualitative phase used semi-structured interviews with coordinators, focus groups with students and teachers, lesson observations and document review. All qualitative data were subject to thematic and cross- thematic analysis. The quantitative phase (also including a non-continuum national school) used a demographic information survey, the Intercultural Development Inventory (IDI) for measuring students’ improvement levels of intercultural understanding and the Global Citizenship Scale (GCS) for measuring students’ improvement levels of global engagement. Using a conceptual framework developed by Singh and Qi (2013), the qualitative phase of the study found that while CAS supports global engagement most, TOK fosters intercultural understanding and global knowledge. As to EE, it provides potential opportunities for fostering multilingualism, intercultural understanding and global engagement through students’ explorations of linguistic, cross-cultural and global issues, especially within the humanities. Furthermore, the qualitative analysis indicated that PYP is perceived as an inquiry-based programme that fosters the development of international mindedness through PYP exhibition, school wide community service projects, cultural explorations in language classes. MYP is perceived to foster the development of international mindedness through personal projects, Approaches to Teaching and Learning (ATL) skills (i.e., research skills, thinking skills, communication skills, self-management skills, and social skills), and discussion on issues of global significance. The quantitative phase of the study showed that no matter what type of school IBDP students were enrolled in (national or international; continuum or non-continuum), there was statistically no significant difference between students’ pre and post levels of intercultural understanding and global engagement in terms of improvement after one year spent in IBDP.

Key words: International Baccalaureate, international education, international-mindedness, core components (CAS, TOK, EE), multilingualism, intercultural understanding and global engagement
Contents

Introduction ........................................................................................................................................ 1
Review of the Literature .................................................................................................................. 2
Methodology .................................................................................................................................... 5
  Research Design .......................................................................................................................... 5
  Research Context ......................................................................................................................... 5
  The Pilot Study ............................................................................................................................. 6
Sampling .......................................................................................................................................... 6
Instrumentation ............................................................................................................................... 7
Data Collection .............................................................................................................................. 9
Data Analysis .................................................................................................................................. 10
Findings ........................................................................................................................................... 11
  Findings: Research Question 1 (Qualitative data) ................................................................. 11
  Findings: Research Question 2 (Qualitative data) ................................................................. 20
Results: Research Question 3 (Quantitative data) .................................................................... 23
Discussion ..................................................................................................................................... 28
  Discussion: Research Question 1 (Qualitative Data) ........................................................... 28
  Discussion: Research Question 2 (Qualitative Data) ........................................................... 32
  Discussion: Research Question 3 (Quantitative Data) ......................................................... 35
Conclusion ..................................................................................................................................... 38
References ..................................................................................................................................... 40
Appendices .................................................................................................................................... 48
  Appendix A: Demographic Information Survey for IBDP Students ................................ 48
  Appendix B: Global Citizenship Scale (Adapted Version) ..................................................... 50
  Appendix C: Intercultural Development Inventory (IDI) ...................................................... 53
  Appendix D: Interview Protocol (Coordinators, Administrators) .......................................... 54
  Appendix E: Focus Group Protocol (CAS, TOK, EE Teachers and Students) .................... 56
  Appendix F: Observation Protocol for TOK Classes ............................................................... 58
  Appendix G: School Audit Form ............................................................................................... 60
  Appendix H: School Documents Requested for Analysis ....................................................... 62
  Appendix I: Document Analysis Rubric .................................................................................... 63
  Appendix J: School Profile Template ....................................................................................... 68
  Appendix K: Examples of community service projects for global engagement .................... 71
  Appendix L: Examples of EEs in the Humanities of fostering intercultural understanding .... 72
  Appendix M: Authors’ Biographies & Authors’ Collaborative Work ...................................... 73
Tables

Table 1 The number of participants who took the IDI pre/post-tests from each school ........... 8
Table 2 The number of participants who took the GCS pre/post-tests from each school ........ 8
Table 3 Descriptive statistics of the IDI at the participating schools .................................. 25
Table 4 Descriptive statistics of the GCS at the participating schools................................. 27
**Introduction**

International-mindedness (IM) is a concept that provides genuine understanding of different viewpoints which go beyond mere tolerance. Being aware of the importance of perspective-taking and diversity, internationally-minded individuals can look from different cultural perspectives and consider the impact of a course of action on both the local and global communities.

IB World schools take a lead in educating students toward international-mindedness through encouraging multilingualism, increasing intercultural competence and promoting global awareness. Specifically, IB Diploma Programme core components: Creativity, Activity and Service (CAS), Theory of Knowledge (TOK), Extended Essay (EE) are said to be responsible for nurturing and fostering international-mindedness in the DP (Mannix, 2012), with the ultimate goal of developing responsible global citizens.

This study examines the role of the IBDP core components (TOK, CAS, EE) as related to the development of international-mindedness in terms of multilingualism, intercultural understanding and global engagement at two IBDP continuum schools (PYP-MYP-DP) in Istanbul, Turkey. The study also identifies IBDP students’ levels of international-mindedness in terms of intercultural understanding and global engagement and examines changes in these levels one year into programme implementation.

Other researchers and educators can use the IM conceptual framework and associated methods to examine how IM is conceptualized and implemented in different schools in other regions of the world. In so doing, schools can devise specific strategies to nurture the development of IM uniquely in their own context.
This study is part of a larger PhD thesis entitled “The development of international-mindedness: An investigation into how the IB Diploma Programme fosters students’ multilingualism, intercultural understanding and global engagement” (Metli, 2018).

**Research Questions**

1) In what ways do the IBDP core components (TOK, CAS, and EE) support multilingualism, intercultural understanding and global engagement?

2) What are the perceptions of students and teachers about how PYP and MYP education has influenced students’ development of international-mindedness?

3) From Year 1 to Year 2 in the IBDP, do students show any change in their levels of intercultural understanding and global engagement? Also, is there any difference among schools in terms of their patterns of improvement in intercultural understanding and global engagement?

The educational supports needed to encourage international-mindedness may differ in national versus international schools, so this study was designed to investigate this potential difference at two case study schools in Turkey, one national and one international. The completed research on the development of international-mindedness may benefit IB schools both in Turkey and also other countries through its inquiry into the implementation of the DP core components and their capacity for supporting for the development of international-mindedness. Schools around the world can also utilize the findings with regards to understanding challenges and improving the practices that support international-mindedness.

**Review of the Literature**

As a concept, international-mindedness emerged explicitly when it was first introduced by the IB through its high school Diploma Programme (DP) during the 1960s (Hill, 2012). However, the IB’s definition of international-mindedness has changed over time.
At the start, the IB focused on “intercultural understanding, awareness of global issues, critical thinking skills, education for the whole person and the provision of a university entrance qualification with worldwide currency” (Hill, 2012, p.251).

More recently, the IB “attempts to define international mindedness in increasingly clear terms” (IB, 2008, p.3). In 2013, the IB commissioned a study on the conceptualization and assessment of international-mindedness. This report, developed by Singh and Qi (2013), makes an attempt to clarify further the concept of international-mindedness. It also identifies existing instruments that can be used to assess international-mindedness. Singh and Qi (2013) established the following three pillars of international-mindedness: multilingualism, intercultural understanding and global engagement. Their findings are based on a systematic analysis of official IB documents about international-mindedness in the IB along with a comprehensive literature review on international-mindedness and related constructs, and a synthesis of contemporary theories, components and issues.

Nonetheless, there are still limited studies on what schools are doing in practice toward the development of international-mindedness. Previous research has identified a range of literature that has the underlying aim of identifying conceptualizations, reflective interpretations and assessment possibilities for international-mindedness and its related constructs (Bailey and Harwood 2012, 2013; Castro, Lundgren, and Woodin, 2013; Singh and Qi 2013; Sriprakash, Singh, and Qi, 2014). These studies provide valuable background and insights into understanding international-mindedness at mostly a conceptual level, not in how it is implemented in practice.

As an example of conceptualization of international-mindedness, Castro, Lundgren, and Woodin (2013) conducted a literature review on the same three pillars mentioned above related to international-mindedness. Their study included a critical analysis of IB official documents from across three of its four programmes (Primary Years, Middle Years and
Diploma). They pointed out that “the IB conceptualization of international-mindedness does not include a philosophy of promoting the development of personal qualities such as intercultural citizenship, acting against global social injustice and related constructs” (p.197). Castro, Lundgren, Woodin’s study indicates that the pillars of international-mindedness should be investigated in practice rather than just conceptually to better understand why and how international-mindedness encompasses these pillars of international-mindedness.

As an example of identifying good practices of IM, a more recent study by Hacking, et al., (2017) investigated the “promising practices” of the development and assessment of international-mindedness. The study revealed findings on how schools can nurture IM through their standards, curriculum and commitment. It examined how nine IB World Schools (which were recommended for their strengths in IM) were conceptualizing, implementing and assessing international-mindedness and understanding the related challenges. The study examined different programmes and contextual locations to gain detailed perspectives at each school. The study suggests that intentionality is one of the most important factors influencing the development of promising practice on IM. All nine case study schools were actively working to develop IM, though each was doing it with widely varied approaches. Therefore, it was concluded that school communities need to discuss, define, develop, assess and evaluate IM according to their particular contexts and profiles.

Furthermore, there are also general strategies that support the development of international-mindedness, as recommended by experts in the field. As educators become more internationally attentive, schools around the world communicate similar objectives with regards to the global perspectives and international education (Hansen, 2011). For example, if students have an opportunity to study cultures and countries which are different from their own, they can demonstrate an increased awareness of others as well as to develop greater understanding and appreciation of their own culture (Fannon, 2013). Even national schools
can demonstrate international-mindedness within their curricular and extracurricular practices by instilling an international worldview. Therefore, international-mindedness should be an integral part of the school’s standards, instruction, climate and assessment in order to prepare students for participating in an interdependent world (Skelton, et al., 2002).

Methodology

Research Design

Using the three pillars, multilingualism, intercultural understanding and global engagement, as a conceptual framework for international-mindedness (Singh and Qi, 2013), this embedded mixed-methods research focused on how international-mindedness was perceived within two case study schools. The study built two cases about how IBDP schools influenced the development of students’ international-mindedness, especially how they implemented the core components of the DP. The qualitative exploration of international-mindedness included interviews, focus groups, document review and observational data of supportive aspects of the school culture. The quantitative exploration of international mindedness used a survey that measures students’ levels of intercultural understanding and another survey of their global engagement levels. The quantitative phase involved the two IB continuum schools along with a non-continuum school. The purpose of this additional non-continuum in the quantitative phase was to compare whether there was a difference between the continuum school and the non-continuum school in their development of students’ intercultural understanding and global engagement.

Research Context

The qualitative cases centered on two schools in Istanbul, Turkey. Both schools were co-educational private schools that were authorized to implement the Primary Years
Programme (PYP), the Middle Years Programme (MYP) and the Diploma Programme (DP).

For the quantitative phase, this study also included a non-continuum school in Istanbul, Turkey. This additional school was also a co-educational national private school that had been authorized to implement the DP for over ten years.

The Pilot Study

An IBDP school in eastern Turkey was chosen to pilot the study. Three online surveys (Demographic Information Survey, Intercultural Development Inventory and Global Citizenship Survey) were completed by 33 grade 11 students at the pilot school. Four interviews (core component coordinators, teachers, and administrator) and six focus groups (students and teachers) were recorded with permission. The results of the pilot phase were used to refine the research design and the data collection instruments. Based on the feedback, the researchers improved the overall clarity of interview and focus group questions, allocated more time for administering the surveys, and simplified the language of the Global Citizenship Survey for non-native speakers of English.

Sampling

The participants were students, teachers, coordinators and administrators at the two case study schools. For purposes of anonymity, pseudonyms are used for the two case study continuum schools (“National School” and “International School”). The non-continuum school that participated only in the quantitative phase is referred to as the “Additional School”. The anonymity of participants at all participating schools was maintained in the analysis and reporting.

For qualitative data collection, nonprobability purposeful sampling was used with a targeted group of students and their teachers in each case study school. Interviews were conducted with students and teacher participants in the core components (CAS, TOK, EE). Focus groups were conducted in each school with four to six students from grades 11 and 12.
who represented a mix of males and females from different social backgrounds and ethnic
groups for CAS, TOK, EE interviews. Focus group discussions were conducted with three to
five teachers for CAS, TOK, EE interviews. Teachers with some PYP and/or MYP teaching
experiences were in each group and selected especially to represent various DP subjects such
as languages, humanities, sciences and math.

Instrumentation

**Demographic Information Survey:** It was derived from an exploratory survey
conducted by Özakman (2017) and Yazgan (2017), and used with permission. It includes
questions about each participant’s multilingualism and experiences in other cultures. (See
Appendix A.)

**School Audit Form:** The school audit form, adapted from Hacking, et al., (2017) was
used to observe the overall school environment. This included taking note of displays and
other spaces such as outdoors and corridors to collect information on school ethos, aims,
communication, diversity and viewpoints on global and local perspectives. (See Appendix G.)

**Lesson Observation Form:** An observation form was used for TOK class observation.
The lesson observation notes were used to learn how international-mindedness was perceived
and enacted in each school in the relevant TOK classrooms. Follow-up interviews with
teachers after each classroom observation helped ensure accurate interpretation of teachers’
perspectives about what happened and why. (See Appendix F.)

**Intercultural Development Inventory (IDI):** The IDI is derived from Bennett’s
Developmental Model of Intercultural Sensitivity (2004). It is an assessment tool that
measures the level of intercultural competence/sensitivity across a developmental continuum
for individuals and represents a theoretically-grounded measure. The IDI uses five stages of
development to assess individuals on **denial, polarization, minimization, acceptance and adaptation.** The instrument possesses strong content and construct validity across culture
groups (Paige, et al., 2003). The researchers completed the required IDI Qualifying Administration training to administer the pre and post surveys. (To review sample IDI items, see Appendix C.)

**Global Citizenship Scale (GCS):** GCS is a theoretically grounded and empirically validated scale (Morais & Ogden, 2011) to measure global citizenship encompassing *social responsibility, global competence, and global civic engagement* and their sub-dimensions. Testing of the scale shows that global competence and global civic engagement are both strong dimensions of global citizenship (Paige, et al., 2003). Permission was obtained for using this scale. (To review the adapted version of the GCS, see Appendix B.)

The total number of DP students, the number of students who completed the pre and post-tests of IDI and GCS are all shown in Tables 1 and 2.

**Table 1 The number of participants who took the IDI pre/post-tests from each school**

<table>
<thead>
<tr>
<th>School</th>
<th>Total number of DP students</th>
<th>The number of students who completed the IDI pre-test</th>
<th>The number of students who completed the IDI post-test</th>
<th>The number of students who completed both the pre and post-test of the IDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>National School</td>
<td>46</td>
<td>31</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>International School</td>
<td>45</td>
<td>36</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Additional School</td>
<td>45</td>
<td>39</td>
<td>28</td>
<td>26</td>
</tr>
</tbody>
</table>

**Table 2 The number of participants who took the GCS pre/post-tests from each school**

<table>
<thead>
<tr>
<th>School</th>
<th>Total number of DP students</th>
<th>The number of students who completed the GCS pre-test</th>
<th>The number of students who completed the GCS post-test</th>
<th>The number of students who completed both the pre and post-test of the GCS</th>
</tr>
</thead>
<tbody>
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<td>45</td>
<td>41</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>Additional School</td>
<td>45</td>
<td>44</td>
<td>31</td>
<td>20</td>
</tr>
</tbody>
</table>
Data Collection

Protocols were developed for class and school observations, semi-structured interviews (for coordinators, administrators and core component advisors), and focus groups (for teachers and students), which were all prepared in line with the stages of an interview investigation (Brinkmann and Kvale, 2015). Interview and focus group questions explored topics related to international-mindedness such as curricular and extracurricular activities, procedures and policies, support for and challenges to international-mindedness. (To review the interview protocol and questions, see Appendix D; for the focus group protocol and questions, see Appendix E. To review the list of requested documents from schools, see Appendix H; for the document analysis rubric, see Appendix I).

The data collection was carried out during three separate two-day visits in the fall and spring terms of 2016-2017. The first school visit included the administration of the Demographic Information Survey (DIS) as well as the pre-surveys of the Intercultural Development Inventory (IDI) and Global Citizenship Scale (GCS) at the National School, International School and Additional School. During this visit, the semi structured interviews with the core component coordinators and school administrators were conducted for CAS, TOK, EE at the National School and International School, as well. The second school visit included focus group discussions for CAS, TOK, EE with students and with teachers at the National School and International School. The last school visit focused on a document review and observations of the TOK classes and school environment at the National School and International School. The post-surveys of the IDI and GCS were administered online from distance in the middle of grade 12 at the National School, International School and Additional School.
Data Analysis

The qualitative data consisting of nine interviews (core curricula coordinators, teachers, and administrators) and twelve focus groups (students and teachers) were recorded with permission and transcribed in preparation for content analysis by using the qualitative data coding software Nvivo 11 Pro. Using the thematic content analysis for the common themes and differences across stakeholders (Braun and Clarke, 2006), the analysis was conducted one school at a time with a constant comparative technique across stakeholders. Researchers created a scheme of work based on the common themes arising from transcripts. Researchers had intensive discussions on cross coding of the transcripts for coming to agreement on codes and sub-codes for the themes. Consensus was reached by carefully reviewing the merged Nvivo projects to identify any conceptual disagreements and looking for common themes and points of difference. School profile reports of each school describing the school culture and its core components support for international-mindedness were produced and sent to schools for member-checking (See Appendix J for the school profile template; see Appendix M for information on authors’ collaborative work).

The quantitative data mainly derived from the GCS and IDI at the National School, International School and Additional School were entered into SPSS for statistical analysis. Analysis of the subscales for all items in the GCS was conducted to confirm reliability coefficients. The IDI school profiles were created by the professional IDI Company (2017). The IDI Company measured the level of intercultural competence/sensitivity across a developmental continuum for individuals’ perceived and developmental orientations. The GCS and IDI scores were analyzed based on descriptive (means and standard deviations) and inferential statistics (paired sample t-tests and one way ANOVA with repeated measures). The quantitative data provided confirmatory insights and additional descriptors to the qualitative findings.
Findings

Findings: Research Question 1 (Qualitative data)

The Development of International-mindedness in Creativity, Activity and Service (CAS)

Examples of Multilingualism in CAS

Within CAS, examples and supports for multilingualism were mainly discussed about learning a new foreign language or how students were teaching a foreign language to peers. Both students and DP coordinators discussed learning a new foreign language such as taking private foreign language lessons as part of their CAS experiences or offering foreign language tutorials to younger students in their own school as a service activity. In using their languages during creative works or service projects, CAS especially gave students opportunities to develop multilingualism for languages in which students were already fluent. Multilingualism was also considered as more than having a command of spoken languages at the National School. One of the students exemplified how she and a friend improved their multilingualism by learning sign language.

Examples of Intercultural Understanding in CAS

Intercultural understanding was noted to be fostered at both the National School and International School through the extracurricular activities (i.e., international TOK conference or Model United Nations conferences) which helped students understand different perspectives of countries, how to approach someone who has a different perspective than theirs and learn about other ways of thinking by working in groups of people who come from different cultures. As an example, one CAS student from the National School talked about how the TOK conference they organized last year helped them become “culturally engaged” by reflecting upon a personal experience she had about a group of participants from Jordan. Similarly, the CAS coordinator from the International School especially emphasized the importance of collaborative projects such as creative murals or trips together in which
international students were encouraged to work and make decisions together. The important element was that the task required them to navigate their own differences as one way of fostering intercultural understanding. Examples from both schools illustrated distinct opportunities for developing open-mindedness, collaboration, empathy and perspective taking and in turn intercultural understanding.

**Examples of Global Engagement in CAS**

Global engagement examples given were mainly community service activities that required an action to address a local or global problem such as environmental problems, gender inequality, refugee problems, disabled or disadvantaged people and so on, which reinforced social responsibility and knowledge necessary for global engagement. The community service examples in CAS included both local and global service projects carried out by students collaboratively. Participants from both schools mentioned community service projects described in Appendix K, which illustrated their global competence, social responsibility and global civic engagement.

**The Development of International-mindedness in Theory of Knowledge (TOK)**

**Examples of Multilingualism in TOK**

Multilingualism was fostered through discussions around language as a way of knowing at both the National School and International School. The common example within language as a way of knowing was related with the discussions on the “Sapir-Whorf hypothesis” which is related to how language helps gain knowledge and how the language spoken determines the way one thinks (Lagemaat, 2015), as one TOK teacher described, “looking at aspects of knowledge such as meanings behind words, being lost in translation, the cultural aspects within languages.”

As a common practice of multilingualism in TOK, TOK presentations were briefly mentioned. For example, a TOK student from the National School exemplified how
presentations can create the necessary platform to explore language issues such as the examination of “the use of politically correct language”:

My TOK presentation…was…specifically on … politically correct language…and…how culture changes, the language changes. For example, shellshock, the word shellshock in WWI was…and then it turned to… battle fatigue, then operational dysfunction, and then after operational dysfunction, turned to a post-traumatic stress disorder…because the idea of euphemism is to have soft language, so that people feel a little bit better about themselves. … I showed a little bit of both sides… how … as culture changes the language changes…

As a unique practice of multilingualism in TOK at the National School, the TOK conferences were also mentioned. A TOK student explained that the TOK conferences they attended also helped them become more aware of issues and variations related with languages such as “dual language differences” and “translation and politics.”

**Examples of Intercultural Understanding in TOK**

Intercultural understanding was fostered through studying the TOK ways of knowing and areas of knowledge. TOK teachers gave “language as a way of knowing” as an example that helped students have a view into different cultures. Furthermore, the TOK coordinator from the National School claimed that “intercultural awareness” could be fostered when students especially discussed “ethics and history as areas of knowledge”. She shared that “I think in ethics when we are talking about morals of specific cultures, we deal about intercultural understanding and I recall talking about arranged marriages, child marriage, children brides and the way women are treated.” The TOK students also added that they could look at controversial issues in different areas of knowledge. So, being aware of other perspectives, students could make sense of cultural differences and commonalities based on their own and other culture’s customs and practices.

At the National School, TOK students and TOK teachers from the National School discussed the TOK presentation task as examples of how students could develop their intercultural understanding. Participants mentioned that TOK presentations helped students
gain intercultural understanding since they could explore cultural differences and cultural diversity. One TOK student from the National School exemplified it by sharing her TOK presentation topic:

For my TOK presentation, I talked about the DNR [Do not resuscitate] forms that … that are not legal in Turkey…. and what that form basically does if you not wish to pursue your life the way you are in right now, that you can be a terminal cancer patient, …, then they grant you to right to end your life. So,… some people said that I gave an example of a little kid who was five years old, and he wanted to sign the DNR form, … so I remember … the class was divided…some people said that -Well, he has suffered for so long-, even though he was only five years old, and other ones thought that -the world science is ever growing, so he should hold on longer, his parents should not let him- so, that was a healthy discussion environment as well.

This student found this topic provocative for further discussion because students could look at perspectives related to this issue both inside and outside of Turkish culture. This was an example a TOK presentation in which students not only touched upon the ethical dilemmas, but also discussed how different countries legally approach this issue. Such a discussion could also be very effective when there are students from different cultural backgrounds and represent both their personal views which may be influenced by their cultural and religious background.

As another practice of intercultural understanding in TOK at the International School, several students discussed TOK strategies such as mind-mapping tools for perspective taking, along with discussions that elicited ideas for noticing cultural differences and developing their cultural awareness. TOK teachers elaborated on their own examples of approaches or strategies for supporting IM in the TOK classroom such as “value-added” discussions about living in foreign cultures; discussions on current events; and using students’ cultural backgrounds as resources. One specific example given for using students as resources was about asking Korean students to explain their mathematical understanding of trigonometric
functions to show other students how their language influences the conceptual frameworks of how they think and reason about math.

Examples of Global Engagement in TOK

Global engagement examples centered on the class discussions related with specific current events at both the National and International School. For example, it was noted in the TOK lesson observation at the National School that the TOK teachers held class discussions such as “Humanae art project” as a global issue on racial discrimination to help students make connections of this issue with their own context. The “Humanae Project” video was about raising awareness on racial discrimination through an artistic approach. In this project, the artist and photographer Angelica Dass catalogues skin tones from diverse parts of the world and shows with her project that skin color and race are more complex than they seem. The TOK teacher used it as a means of relating it to the students’ own local contexts. He asked students questions about stereotyping and misconceptions such as how we may treat people in a biased way (i.e. Turkish vs Kurdish conflict). Similarly, another TOK teacher from the International School gave TOK examples of raising awareness of global issues through current events. For example, the teacher discussed terrorist events in Turkey and in Paris, with TOK “ways of knowing” as tools for making such discussions more objective and accessible to seeing how the people from each country involved may take different perspectives on these current events.

The unique TOK examples for developing global engagement at the National School were mainly about teaching strategies. The TOK teachers from the National School gave examples of both individual and collaborative teaching methods to support global engagement and intercultural understanding through class discussions, written reflective tasks, field trips and TOK presentations. The following teaching methods aimed to help students learn discussion
skills involved in perspective taking along with building empathy and raising awareness on global and social problems:

- teaching about the nature, problems, and reliability of knowledge to give students strategies to be able to produce solutions to global problems;
- visiting “The Dialogue in the Dark” exhibition while covering sense perception as a way of knowing unit to help develop empathy with visually impaired people;
- encouraging students to choose substantive, controversial and debatable real life situations for TOK presentations such as exploring “environment friendly cars”;
- exploring cultural challenges and dilemmas such as “Turkish & Armenian conflict on the genocide” or “Turkish-Kurdish conflict” while discussing knowledge questions.

The unique TOK examples of global engagement at the International School mainly centered on “exposure” and laying the “groundwork” for helping students learn discussion skills involved in perspective taking, through issues such as ethics and cultural relativism along with topics where people from different cultures may disagree (i.e., female circumcision and child brides). Students pointed out that they were learning how cultures interpret ideas differently and learning to discuss differences more openly. One teacher specifically spoke about stimulating cross-cultural discussions on identity, media, and freedom.

**The Development of International-mindedness in Extended Essay (EE)**

**Examples of Multilingualism in EE**

Multilingualism appeared most commonly used with students who already had a comfortable fluency in their non-native languages. EE was seen as an opportunity for students to develop greater fluency in English, which was often their second language at both the National School and International School. Foreign/second language users of English students who did their EEs in English had the opportunity to practice the target language, which was
helpful for language learning. Otherwise, it was often an opportunity to further develop their native language.

Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language. Otherwise, it was often an opportunity to further develop their native language.

Other than developing fluency in English to be become a multilingual learner, EE provided examples of mutually-supportive relations between multilingualism and intercultural understanding. An English EE supervisor from the National School explained that students doing English EEs also developed communication skills to engage successfully in intercultural encounters. She specifically gave some EE examples which touched upon language issues that helped students become more culturally aware, such as the analysis of “the linguistic elements in Obama’s speech,” “the use of language through violence within American society” or “the use of language to understand the social structures of the target culture”.

Similarly, EE provided examples of mutually-supportive relations at the International School in how multilingualism could help students in writing their EE, and also how working on their EE helped develop their language skills. Mutually supportive EE activities from the International School helped students develop fluency while developing writing, critical thinking and research skills included doing research in other languages where students used their second or third languages for exploring EE topics in ways that they could not do with only one language.

Examples of Intercultural Understanding in EE

Intercultural understanding was developed in EE by means of investigating cultural practices and perspectives and deepening students’ understanding of the culture in terms of the economic, social and cultural structures of different countries. The examples given at both the National and International School for support to intercultural understanding in terms of global knowledge were mainly from the Humanities subjects (i.e., economics and literature, philosophy, history, anthropology, world studies) as indicated in Appendix L.
At the National School, English EE supervisors specifically pointed out that especially English EEs helped students broaden new cultural perspectives as they analyzed a literary book. One EE supervisor explained:

Students get to read a lot of sources, with different perspectives and they get to…analyze a cultural artifact. They get to think deeper about it, and they have to approach this with new perspective…And they, of course, need to analyze the history…. they need to gain information about the social structure, they need gain information about the cultural elements. As a result, of course, they become knowledgeable …through the analysis of the book, the themes and characters.

So, when students analyzed a literary piece for their EE, it helped them become more aware of and knowledgeable about the target culture.

At the International School, both teachers and students correlated the EE topics with the initial stages of acquiring the knowledge needed for taking informed action in the world. Teachers noted how some EE topics were especially useful for guiding students into more intercultural understandings, such as topics around stereotypes, geographic topics of examining local contexts, or topics that require collaboration and studying global or social issues outside of one’s own culture.

**Examples of Global Engagement in EE**

Global engagement was fostered through opening students’ eyes for global issues, searching about global issues more thoroughly and raising awareness on global problems related to immigration, environment, discrimination, gender inequality and so on.

The EE examples exemplified mostly at the National and International Schools showed how this in-depth research (mainly in the humanities) helped students study social or cultural issues, either about their own cultures or events in other cultures and explore issues that have global impacts. As a specific example of gains in global engagement through EE, the DP coordinator from the National School mentioned how a student explored an environmental problem for her world studies EE which “is a great chance for the students
…to develop IM.”

One of the EE students was [studying] about “Kurbağalı Dere” in Istanbul. And it’s a really very dirty water in fact and … there was methane gases and also the people in Kadıköy [who] were afraid of it because it was bubbling and one of the students choose this problem as an EE and also she will… investigate how these kinds of rivers [can] be cleaned and also what are the effects of this kind of dirty water to the environment.

This quotation illustrates how students can take a step toward global engagement through investigating and suggesting ways of how to clean such rivers, not merely being knowledgeable about water pollution in general. Other examples from the National School included:

- How the contemporary practice of democracy is wrong?
- Slowing down the climate change – increased renewable energy usage on mitigating the effects of greenhouse gases and having a cleaner environment for the future.

The EE examples from the International School also showed how EEs helped students better understand their local and international perspectives through research questions such as:

- What are the social and economic impacts of the influx of Syrian refugees in the Beyoğlu district Istanbul, in 2016, as a result of the 2011 Syrian Civil War?
- To what extent does the demand for cigarettes get affected by the government interventions in the cigarette market of Turkey?
- How have recent terrorist attacks impacted tourism in the cities of Paris and Istanbul, and what role has media played in the way tourists portray security in these cities?
Findings: Research Question 2 (Qualitative data)

Examples of PYP support for IM

At the National School, PYP was considered by some DP teachers and students who had experienced the PYP as a good preparation in terms of intercultural understanding. For instance, it was claimed that intercultural understanding could be developed with the help of “familiarizing kids with different cultures on a basic level like clothes, and food, music,” “studying different pioneers from different countries such as Gandhi,” and reading different texts and being exposed to different cultural practices and different traditions. Such experiences helped students learn about ways of thinking and appreciating different perspectives.

Furthermore, global engagement was developed with the help of community service projects that the PYP students were guided to be involved in organizations such as “TEMA³, LÖSEV⁴, TURMEPA⁵” supported by school, illustrating students’ global engagement by doing local and global service projects. In another example of global engagement, PYP students practiced empathy by attending the “Dialogue in the Dark” activity organized by TOK students in the DP. Dialogue in the Dark helped PYP students to get out of their comfort zone by orienting them to a world in darkness, so they could put themselves in the visually impaired people’s shoes. Furthermore, with the help of school’s policies such as “re-use, reduce, recycle,” PYP students became more aware of global environmental issues, also indicating the significance attached on step by step approach to solve global problems.

Overall, all these examples illustrated how seeds were planted in individuals during the process of developing IM during its initial stage.

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³ TEMA: The Turkish Foundation for combating soil erosion, for reforestation, and the protection of natural habitats.
⁴ LÖSEV: Foundation for Children with Leukemia
⁵ TURMEPA: Turkish Marine Environment Protection Foundation
At the International School, teachers discussed how the inquiry-based approach seemed strongly supportive of international-mindedness. One teacher explained how again the composition of the student body’s international background was most important, but how the inquiry approach in the PYP could also help in orienting students toward question-asking and multiple answers:

But definitely the way of thinking lends itself ’cause it’s all inquiry-based, and we’re asking them to ask questions. We’re hopefully embedding in them that there’s more than one answer from a young age, to ask them to find the responses, and to look at, at different ways of thinking, different ways of approaching something. … So, hopefully that lends itself to being internationally-minded…

Another teacher concurred about how some of the PYP units were so helpful in posing questions for students, “Who are we? How do we express ourselves?, those frameworks naturally lent themselves for international-mindedness to come into play…But I think what’s also powerful is the fact that it is inquiry-based.”

In addition, the EE coordinator talked about the PYP exhibition as being a helpful curricular element that sets up inquiry-process, especially noting that, “For the PYP, it’s their exhibition that they get a lot of guidance…from their teachers and investigate something that they are passionate about.” Thus, the idea that students being given the opportunity for selecting their own topic, combined with mentoring from a teacher, seemed especially important to the type of support needed in the primary years. Also, linking the exhibition task to research skills and global issues, a DP teacher who was a mother of a PYP student noted the value of “doing research and then that relates to a global idea.”

**Examples of MYP support for IM**

Participants both at the National and International School claimed that MYP has learning outcomes that included Approaches to Teaching and Learning (ATL) skills such as research skills, thinking skills, communication skills, self-management skills, and social skills
that helped students prepare for DP and their development of IM. For instance, in the focus group with EE supervisors at the National School, it was shared that that “MYP helps with research skills, organizational skills.” Participants shared that MYP helps students through writing lab reports about “how to see a problem and solve it” following the “scientific investigation,” for EE in terms of “research skills, and developing an understanding of academic honesty, especially with the help of personal project.” One student explained how two years of MYP helped her more than the prior traditional Turkish middle school that she had attended, especially because the MYP included:

> Exploration around the topics rather than just memorizing everything and taking tests. But, when I first came here, I had no idea how to write a lab report, I had no idea how to construct an essay…So even those two years of MYP helped me prepare for my DP, and kind of critical thinking, my TOK, how to approach essays...

Similarly, one student from International School who had not done the MYP at all, agreed that she herself was lacking in skills for investigation and research after arriving from a public school in Belgium where “there wasn’t any writing…so I think the MYP curriculum, really prepared us to write the extended essay.”

The personal project in MYP was intensively discussed at both the National School and International School, by both students and teachers. The participants saw the value of the MYP personal project as part of the continuum that supported the DP core components and the development of international-mindedness. As an example, at the National School, most participants claimed that the personal project in MYP fostered learner profile attributes and helped for general study habits, but also for their development of IM at large. The personal project helped students about “academic writing,” developing “organizational skills,” “how to prepare a project, write reports, make research, carry out investigation and use different resources,” all necessary study skills to prepare for EE since “students go through a similar process.” Participants also stated that personal projects helped students in their development
of IM because personal projects were reflections of IM practices in MYP such as “community service projects” and also they helped students prepare for IM, especially global engagement as they “focus on social problems in their personal projects mostly.”

Similarly, at the International School, students elaborated mostly on the transferable research skills that they gained from the personal project that prepared them for writing the extended essay. Skills especially noted were collaborative skills, along with investigation, writing, and how to learn from teacher feedback. For example, one explained how it also helped him in “learning how to get feedback and reflect on the feedback…I can see how that, um, opportunity helped me through my courses in IB and CAS and extended essay.”

**Results: Research Question 3 (Quantitative data)**

This section presents the quantitative findings from pre and post surveys, on the students’ levels of improvement in intercultural understanding and global engagement. The data regarding intercultural understanding were collected with the Intercultural Development Inventory (IDI) and the data regarding global engagement were collected with the Global Citizenship Scale (GCS), both of which were analyzed statistically with paired samples $t$-test (repeated measures) and one way ANOVA with repeated measures in SPSS. The quantitative data were needed to provide confirmatory insights and additional descriptors to the qualitative findings.

Since the number of participants at the case study schools was less than 30, first an exploratory data analysis was conducted to determine if the pre-test and post-test scores of intercultural understanding (IDI) and global engagement (GCS) distribution was normally distributed. Results for the Shapiro-Wilk test for normality indicated that the National School pre-test score distribution deviated significantly from a normal distribution in the IDI ($D = .898, p = .038$); and in the GCS ($D = .898, p = .038$). Therefore, rather than paired samples $t$-test, at the National School, Wilcoxon Signed-Ranks test was used to compare students’
developmental levels of intercultural understanding and global engagement from Year 1 to
Year 2 in the IBDP. At the International School and Additional School, a paired-samples t-
test was conducted to compare students’ levels of intercultural understanding and their levels
of global engagement from Year 1 to Year 2 in the IBDP.

Wilcoxon Signed-Ranks test results of the IDI at the National School

At the National School, Wilcoxon Signed-Ranks Test indicated that the post-test
scores of intercultural understanding in the second year of IBDP were not statistically
significantly higher than the pre-test scores in the first year of IBDP, \( Z = -.336, p < 0.737 \).
This result suggests that National School students have not improved their levels of
intercultural understanding after one year of exposure to IB education.

Paired samples t-test results of the IDI at the International School

Similarly, at the International School, there was no significant difference in the scores
for the developmental levels of intercultural understanding in the first year of IBDP
(M=84.38, SD=14.80) and the levels of intercultural understanding in the second year of
IBDP (M=81.06, SD=14.54); \( t (28) = 0.877, p = 0.388 \). This result again suggests that
International School students have not improved their levels of intercultural understanding
after one year of exposure to IB education.

Paired samples t-test results of the IDI at the Additional School

Again, at the Additional School, there was no significant difference in the scores for
the developmental levels of intercultural understanding in the first year of IBDP (M=81.53,
SD=14.92) and the levels of intercultural understanding in the second year of IBDP
(M=82.56, SD=13.83); \( t (25) = -.331, p = 0.743 \). These results once again suggest that
Additional School students have not improved their levels of intercultural understanding after
one year of exposure to IB education.
One way ANOVA with repeated measures test results of the IDI

There were 75 students from three schools that took the pre and post-tests of intercultural understanding survey. Table 3 below summarizes the descriptive statistics of the IDI at the participating schools.

Table 3 Descriptive statistics of the IDI at the participating schools

<table>
<thead>
<tr>
<th>School</th>
<th>Number of participants</th>
<th>Pre-test average score</th>
<th>SD in the pre-test</th>
<th>Post-test average score</th>
<th>SD in the post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>National School</td>
<td>20</td>
<td>79.55</td>
<td>17.67</td>
<td>81.61</td>
<td>13.69</td>
</tr>
<tr>
<td>International School</td>
<td>29</td>
<td>84.38</td>
<td>14.80</td>
<td>81.06</td>
<td>14.54</td>
</tr>
<tr>
<td>Additional School</td>
<td>26</td>
<td>81.53</td>
<td>14.92</td>
<td>82.56</td>
<td>13.83</td>
</tr>
</tbody>
</table>

According to the inferential statistics, the results indicated that the effect of time is not statistically significant, $F (1, 72) = 0.001, p = 0.975$. One way ANOVA with repeated measures compared the effect of time (one year spent in DP) on the students’ levels of intercultural understanding in the pre-test and post-test conditions at three schools. Normality checks and Levene’s test were carried out and the assumptions met. The results of one way ANOVA with repeated measures indicated that there was statistically no significant difference among schools, Wilks’ Lambda = 0.987, $F (2, 72) = 0.478, p = 0.622$.

The results related with the levels of intercultural understanding match with the Intercultural Development Inventory group profile report prepared by the professional IDI company (Hammer, 2017), as well. This report presented information about how a group makes sense of and responds to cultural differences and commonalities. According to the group profile prepared by the IDI company (Hammer, 2017), both the pre-test and post-test of the IDI indicated that the “Perceived Orientations” of the National School, International School and Additional School are similar. It indicates that students were at the level of
Acceptance for their understanding and appropriately adapting to cultural differences. This rating reflects that students recognize and appreciate differences in values, perceptions and behaviors among different cultures, including their own. According to the IDI perceived orientation, students believed that they possessed a high level of intercultural competence both in the first year and second year of the IBDP.

In contrast, the pre-test of the IDI indicated that the “Developmental Orientations” of the schools were different from each other. The developmental orientation of students in the International School was at the Cusp of Minimization stage, while the National School and Additional School students scored within the Polarization range. Individuals within the Cusp of Minimization have a slight tendency to highlight commonalities across cultures that can mask important cultural differences in values, perceptions and behaviors. Polarization, on the other hand, reflects an “us and them” judgmental viewpoint toward cultural differences.

Different from the pre-test results, the post-test of the IDI indicated that the Developmental Orientations of the schools were similar. According to the post-test results, the developmental orientation of students in the National School, International School and Additional School is at the Polarization range. These results confirm that after one year of exposure to the IB education, none of the schools improved their level of intercultural understanding. Results also confirm that while the developmental orientation of students in the National School and Additional School did not improve (as both groups from these schools are still at the Polarization stage), the developmental orientation of students in the International School went down from Cusp of Minimization to Polarization.

Wilcoxon Signed-Ranks test results of the GCS at the National School

At the National School, Wilcoxon Signed-Ranks Test indicated that the post-test scores of global engagement in the second year of IBDP were not statistically higher than the pre-test scores in the first year of IBDP, Z = -1.301, p < 0.193. This result suggests that
National School students have not improved their levels of global engagement after one year of exposure to IB education.

**Paired samples t-test results of the GCS at the International School**

In contrast, at the International School, there was statistically significant difference in the scores of the developmental levels of global engagement from Year 1 in the IBDP (M=148.86, SD=15.23) to Year 2 in the IBDP (M=138.79, SD=15.37); \( t (27) = 2.75, p = 0.010 \). However, the difference is seen as an unexpected decrease in the mean of the post-test (M= 138.79). This suggests that to the contrary of improving, students’ levels of global engagement statistically decreased.

**Paired sample t-test results of the GCS at the Additional School**

At the Additional School, similar to the National School, there was no significant difference in the scores for the developmental levels of global engagement in the first year of IBDP (M=153.70, SD=15.39) and the levels of global engagement in the second year of IBDP (M=152.10, SD=17.00); \( t (19) = 0.30, p = 0.763 \). These results suggest that Additional School students have not improved in their levels of global engagement after one year of exposure to IB education.

**One way ANOVA with repeated measures results of the GCS**

There were 72 students from three schools that took the pre and post-tests of global engagement survey. Table 4 below summarizes the descriptive statistics of the GCS.

**Table 4 Descriptive statistics of the GCS at the participating schools**

<table>
<thead>
<tr>
<th>School</th>
<th>Number of participants</th>
<th>Pre-test average score</th>
<th>SD in the pre-test</th>
<th>Post-test average score</th>
<th>SD in the post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>National School</td>
<td>24</td>
<td>163.75</td>
<td>14.26</td>
<td>157.12</td>
<td>19.93</td>
</tr>
<tr>
<td>International School</td>
<td>28</td>
<td>148.86</td>
<td>15.23</td>
<td>138.79</td>
<td>15.37</td>
</tr>
<tr>
<td>Additional School</td>
<td>20</td>
<td>153.70</td>
<td>16.08</td>
<td>152.10</td>
<td>17.00</td>
</tr>
</tbody>
</table>
According to the inferential statistics, the results indicated that the effect of time is statistically significant, $F (1, 69) = 5.612, p= 0.021$. A one way ANOVA with repeated measures compared the effect of time (one year spent in DP) on students’ levels of global engagement in the pre-test and post-test conditions at three schools. Normality checks and Levene’s test were carried out and the assumptions met. The results of one way ANOVA with repeated measures indicated that there was statistically no significant difference among schools, Wilks’ Lambda = 0.975, $F (2, 69) = 0.894, p = 0.414$.

Discussion

Discussion: Research Question 1 (Qualitative Data)

In relation to how the core components in the DP foster the pillars of IM (multilingualism, intercultural understanding and global engagement), the study found that while CAS supports global engagement most, TOK fosters mostly intercultural understanding and global knowledge. Furthermore, EE provides sporadic opportunities for fostering multilingualism, intercultural understanding and global engagement through some students’ explorations of linguistic, cross-cultural and global issues, especially within the humanities. Drawing on this conclusion, the study advocates that multilingualism was not strongly promoted by the core components in the DP at the case study schools. It was only students’ interests and choices in relation to their foreign language learning that helped them gain proficiency as multilingual learners, who in turn were able to develop intercultural understanding and skills. Additionally, although TOK and CAS promoted different aspects of pillars of IM, EE was found to be the least strong core component in DP in terms of directly promoting the pillars of IM.

The Development of International-mindedness in Creativity, Activity and Service (CAS)

This study found that the service component of Creativity, Activity and Service (CAS)
is the strongest aspect for fostering IM from its potential to support global engagement. Similarly, Wilkinson and Hayden (2010) found that the service component of CAS provided students with opportunities for “social involvement” such as “with the very rural local villages, farmers and children of Bombay’s sex-workers who were either HIV positive and confined in a village with no hope of schooling or of ever leaving, or were handed over to an orphanage” (p. 94). Hacking, et al.’s study (2017) indicated that the very nature of CAS “in terms of its focus on thought, action and reflection made it a powerful mediator of IM…the important driver for promoting IM… not just knowledge and understanding but also engagement, action and emotion” (p. 78). As supporting evidence, Saavedra (2014) found that students can gain the skills necessary for civic engagement with the help of CAS.

The current research finding also raises important implications for practitioners. First of all, it should be noted that the extent to which students develop global engagement is dependent upon the individual students’ level of motivation and their choice of service projects (i.e., local versus international problem based projects) (Saavedra, 2014). For example, Rizvi, et al., (2014) found in their study that in some cases students in CAS were more engaged in global problems and showed little concern or knowledge of local problems but in other cases, there were those connected better to local needs. However, it is not possible to claim that when students are connected to local issues, they are less globally engaged because “if students and teachers learn interdependence through community service in their local contexts, a genuine feeling for interdependence is just a short step away” (McKenzie, 1998, p. 246, as cited in Jackson, 2005, p. 196). Hacking, et al., (2017) also state that local engagement is an important expression of IM.

From this point of view, students should be provided with pedagogy in the CAS programme necessary for “empowerment and engagement” (Wasner, 2016, p. 248). Hence, with the right guidance and supportive pedagogy in the CAS programme, students can be
actively engaged in a wide range of activities and gain skills necessary to demonstrate social responsibility, global knowledge, intercultural awareness and sensitivity, open-mindedness, collaboration, empathy and in turn their global engagement. In addition to this supportive pedagogy, schools can work closely with the Parent Teacher Associations (PTA) to establish close connections with the community and the non-profit government organizations (NGO) to engage students in service projects that interest them (Martin, Tanyu, Perry, 2016).

The Development of International-mindedness in Theory of Knowledge (TOK)

The study found that Theory of Knowledge (TOK) fosters intercultural understanding and global knowledge about worldwide issues or problems (i.e., discrimination, bias, terror issues, environmental problems, political conflicts, child brides, female circumcision, abortion and etc.). This finding is reflected in the literature, too. TOK supports the development of internationally minded individuals who can make a positive contribution to the world (Dombrowski, Mackenzie, and Clarke, 2010; Bergeron and Rogers, 2016; Örge, 2017; Tarc and Beatty, 2012). In terms of intercultural awareness, TOK encourages students to appreciate other cultural perspectives through critical thinking (Dombrowski, et al., 2010; Hill, 2012; Özakman, 2017; Wright, 2015). TOK especially helped them “to evaluate assumptions, think critically, and attempt to see from multiple perspectives” (359). As students exchange ideas on knowledge questions related with the ways of knowing and areas of knowledge, they can recognize that their arguments can be subjectively based on religious, cultural and social prejudices. However, although TOK is seen to cultivate students’ habits of mind (Tarc and Beatty, 2012) in that students “recognize the implications of what they know for attitudes and action” (Dombrowski, Mackenzie, and Clarke. 2010, p. 31), there is no empirical evidence in the literature that supports the finding of the current study regarding how TOK course promotes global knowledge.
This finding has implications for practitioners, too. Since “the most emphasized aspect of TOK is cultural differences” (Özakman, 2017, p. 97), TOK teachers should also take into consideration how global knowledge or awareness about universal problems related with environment, human rights, and conflicts, etc. can be explicitly incorporated into TOK. One way of doing it could be through encouraging students to choose their TOK presentations on real life issues of global significance or encouraging teachers to discuss and explore international topics of global significance. Choosing TOK issues especially from Human Sciences, Ethics and History as areas of knowledge or Language, Reason and Emotion as ways of knowing, were found to guide TOK discussions most (Özakman, 2017).

The Development of International-mindedness in Extended Essay (EE)

This study found that EE provides possible opportunities to develop multilingualism, intercultural understanding and global engagement through students’ written investigations and to research linguistic, cross-cultural and global issues especially within the humanities. This finding has been reflected by a few prior studies on the implementation and impact of EE. The existing studies are mostly related to academic benefits and outcomes of the EE (Aulls and Lemay, 2013; Inkelas, Swan, Pretlow and Jones, 2013) rather than exploring how EE develops students’ multilingualism, intercultural understanding and global engagement, or in general IM. Other prior research explored the benefits of the EE serving as preparation for university level research. Wilkinson and Hayden (2010) also indicated that EE was not mentioned by students as a means of exposure to intercultural issues or global problems. The reason is that students’ choices of EE subjects as well as their research questions may not be directly linked to linguistic, cross cultural or global issues and thus their approach to the issue may not be problem or solution-centered. Therefore, Roberts (2009) suggests that schools can encourage more students to write world studies extended essays which address “a global problem or concern and make a close local investigation” (p. 98). He adds that students have
“intellectual and emotional maturity to maintain the critical, and yet objective, stance towards their subjects required by such explorations” (p. 99).

The finding of the current study has implications for practitioners as well. This study suggests that in addition to encouraging students to write world studies extended essays, which were not promoted at the case study schools to a large extent, EE coordinators or advisors should encourage students to consider their experiences and reflections on service projects from CAS and link them to their choices of EE subjects. For example, based on what students learn from their service and volunteering, they can reflect upon volunteering and service experiences that they may link to their future EE research question. In other words, their CAS reflections may be a starting point for a research question that further investigates a global issue and taking an action in their selected EE subject. This can provide a good opportunity for schools to achieve global engagement through academic investigation in EE. Alternatively, students may carry out their academic research in EE on an intercultural or global problem; likewise, it can provide a good opportunity for students to develop a well-structured local service project proposal towards an action related with the problem they are studying. Consequently, EE has useful potential for exploration of issues of global significance. Therefore, schools could more actively employ strategies to explicitly encourage IM-related experiences into students’ academic investigations in EE.

**Discussion: Research Question 2 (Qualitative Data)**

This study found that PYP as an inquiry-based programme is perceived to foster the development of international mindedness through PYP exhibition, school wide community service projects, cultural explorations in language classes. This finding is also reflected in the literature, as well, in which PYP is perceived to be an inquiry based curriculum that leads to the development of IM (Kushner, et al., 2016; McGuinness, Swartz and Sproule, 2016; Morrissey, et al., 2014). The inquiry based curriculum is not the only strength of PYP. In their
study on how schools evaluate the success of the PYP, Kong and Sperandio (2013) point out that “global awareness and international mindedness for learners and the school community as indictors of PYP success” (p.65). So, it should be noted that PYP has certain emphasis on the development of IM, which helps students to progress through their intercultural and action based international experiences for their future studies in MYP and DP. Furthermore, with regards to how IM is fostered through PYP, and confirming findings by Curtin (2016) and Medwell, et al., (2017), this present study found that the PYP exhibition is an important experience that helped students to develop their international-mindedness and learner profile attributes.

This finding has important implications for practitioners. The PYP as the starting programme of the IB education can plant the seeds to orient young students for developing international habits of mind. The IB states that the PYP (2012) helps students “establish personal values as a foundation upon which international-mindedness will develop and flourish”. Walsh and Casinader (2018) point out that “the use of the PYP to teach international-mindedness is largely dependent on the teachers’ acceptance of and commitment to the principles of that programme” (p.35). Therefore, PYP teachers have an important role in creating a stimulating environment where students can be actively involved in cross-cultural issues or issues of global significance through academic and non-academic programmes to develop an international-mindset. Also, students need to be aware of the rationale behind why they are involved in activities on intercultural or global issues. As they are intrinsically and extrinsically motivated to take part in activities preparing them to develop their intercultural understanding and global engagement, students can better internalize the purpose of IM experiences. This, in turn, may enable them to move forward to demonstrate their IM dispositions in their later stages of schooling and life.
With regards to how MYP may help support the development of IM, it was perceived in the case study schools that the development of international mindedness is fostered through personal project, Approaches to Teaching and Learning (ATL) skills (i.e., research skills, thinking skills, communication skills, self-management skills, and social skills), and discussion on issues of global significance. This finding is reflected in the literature, as well. In addition to studies that were conducted to compare the MYP students with non-MYP students in terms of their academic achievement (ACER, 2015; Stevenson, et al. 2017; Wade and Wolanin, 2015), other studies focused on the MYP as a framework to promote the development of IM. To exemplify, prior studies found that attending an MYP school encouraged global awareness, open-mindedness as well as awareness of cultural differences, all in all, civic-mindedness (Ateşkan, et al., 2016; Sizmur and Cunningham, 2012; Stevenson, et al., 2014; Stevenson, et al. 2017). Prior studies conducted in different contexts (i.e., English, Turkish, Arab, Spanish) also found that the MYP helps students to develop creativity, critical thinking, self-expression, inquiry, service collaboration, research, communication, higher order thinking and organization skills (ACER, 2015; Ateşkan, et al., 2016; Stevenson, et al., 2017; Valle, et al., 2017; Wade and Wolanin, 2013). It should be noted that all of these ATL skills are closely connected with the learner profile attributes such as “communicator, inquirer, knowledgeable, open-minded”, which in turn foster the development of IM.

This finding has important implications for practitioners. Continuity of maintaining IM experiences in the MYP can help students not only develop gradually as an IM person, but also develop lifelong learning skills such as higher order thinking, critical thinking, creativity, collaboration, communication, and research skills. Therefore, it is suggested that explicit, deliberate and purposeful academic and non-academic activities in the MYP at schools can create a stimulating environment where students can develop their learner profile attributes.
Examining open-mindedness in MYP schools in the UK, Stevenson, et al., (2014) suggest that schools should embrace the notion of the open-minded school with open-minded curriculum, pedagogies and leadership to enact the development of IM in the MYP. It is suggested that schools actively seek for other intentional ways that are contextually or uniquely appropriate for each school to sustain IM experiences at the MYP level.

**Discussion: Research Question 3 (Quantitative Data)**

This study showed that regardless of the type of school DP students were enrolled in (i.e. national or international; continuum or non-continuum), there was statistically no significant difference between students’ levels of intercultural understanding and global engagement in the pre and posttest one year into the programme. This result also supports other recent findings on the assessment of international-mindedness. Beek (2017) examined the contextual interpretations of international-mindedness of DP students in a national school and an international school in Czech Republic. Similar to the present study, Beek’s statistical analysis revealed no significant difference between participants from these two types of schools.

One possible explanation about why the participating schools from this research have not improved their levels of intercultural understanding and global engagement after one year of IB education may be due to the nature of IM as a process based development: “IM is never achieved as an end point or an outcome but it is a journey, a constant process of defining, acting, learning, reflecting and re (de)fining (Hacking, et al., p. 47).” Beek (2017) also supports this view that “international mindedness is developmental” (p.14). She further explains her view that:

Informed by the notion that international mindedness corresponds to the challenging shift from the socialized to the self-authoring mindset, I offer that most student participants feel a cultural identity is less important because they are still in the process of its construction (p.17)
Similarly, Krajewski (2011) also puts forth that “intercultural competence is a developmental process that evolves over an extended period of time” (p. 140). Additionally, Poonosamy (2016), in her case study with two students, points out that “both students understood international mindedness as an aim, but the tension is that it was not realized as a process” (p. 595). Hence, based on these prior reflections and findings from the literature, it is possible that the students from the current study may have not shown any improvement because they may be still in the process of developing IM.

A second possible reason why the levels of intercultural understanding and global engagement of students did not improve is perhaps because students do not have enough time during the DP’s intense academic program for exploring what it means in their own lives and through academics to be internationally-minded. This is also reflected in the literature. Rizvi, et al., (2014) found that time pressure and the intense focus on examinations within the DP do not provide opportunities for students to develop their learner profile attributes necessary to be internationally-minded. Similarly, the current study found that the DP was perceived as intense academic curricula, with many students at the International School focusing on university requirements for grades. Considering the Turkish context, Martin, Tanyu and Perry (2016), point out that “the competitive Turkish national university entrance examination – administered at the end of high school and required for entrance to Turkish universities– emphasizes academic achievement by assessing knowledge acquired through rote learning” (p.121). Therefore, Turkish students who especially plan to stay in Turkey to study for their university become exam-oriented individuals due to their parents’ high expectations on these high stakes examinations. Students get stressed over this university entrance exam which is based on knowledge, not skills. This finding indicates that the realities of the educational system in the IB highlight the tension between the demands for assessment for students’
futures in terms of tertiary education and the philosophy of the IB as being more than just about academic requirements.

Finally, another reason for the decrease in levels of intercultural understanding and global engagement of students from both case study schools could be related with the external or internal contextual restrictions at the case study schools. “The local environment can present certain limitations or parameters to IM activity especially in a Middle East context” (Baker and Kanan, 2005; Bunnell, 2008, as cited in Hacking, et al., p. 121). As an example to one external restriction, the latest socio-political environment of the country was considered as a contextual barrier at the National School to doing community service in eastern Turkey. There were also examples of internal restrictions at the National School such as seniors not being allowed to attend activities, conferences; a religion and ethics course that did not offer the study of other religions (besides Islam) or school policies that restricted students from being involved in certain cultural activities. As for the International School, this study found that it takes the development of IM for granted because participants believed that the diverse school community would naturally enable students to be internationally-minded. Many students from the International School felt they were becoming more internationally-minded simply by being in an international school, but could not explain how either the academics or instructional strategies were supportive of IM. It was assumed that as long as students and teachers used the school’s diversity as a resource, it was engendering worthwhile IM experiences. Similarly, Beek (2017) also points out that exposure to diversity is an important contextual factor affecting the development of international-mindedness. In contrast, from the study of promising practices of IM at exemplary schools, Hacking, et al., (2017) underscored the importance of intentionality as being another factor that was critical to a school’s support for IM.
Overall, three limitations have been noted to the development of students’ international-mindedness in their one year of exposure to DP education: (1) the continuous, never-ending development of IM itself, (2) the intense academic time demands on DP students, and (3) external restrictions in the local culture or assumptions made by the school culture.

**Conclusion**

Using the IM conceptual framework developed by Singh and Qi (2013), this study investigated how IB Diploma Programme core components: Creativity, Activity, Service (CAS), Theory of Knowledge (TOK), and Extended Essay (EE) foster the pillars of international-mindedness (multilingualism, intercultural understanding and global engagement).

The qualitative phase of the study revealed how two case study schools strive and struggle to foster international-mindedness. The National School strives for fostering international-mindedness by means of showing intentional support to foster international-mindedness. At the National School, the teachers and students see IM as being something more developmental, which occurs as a process over time. Both students and teachers made some claims with regard to how IM can be developed with the help of a diverse school community. Furthermore, at the National School, participants emphasized how IM was developed through a wide range of extracurricular activities, clubs, international trips and conferences which are claimed to support the development of intercultural understanding and global engagement. In contrast, the participants at the International School painted a picture of a struggle to foster international-mindedness among its students. They recognized that a multicultural student body does not guarantee that students develop high levels of international-mindedness. The International School teachers and students seemed to see IM more as a fixed trait. At the International School, students and teachers coming from diverse
countries and cultures assumed that learning together will naturally lead to diverse ways of thinking. As Cause (2009) noted, educators need to understand that developing international-mindedness will not happen by simply putting children of different nationalities in the same classroom.

The quantitative phase of the study showed that no matter what type of school DP students were enrolled in (i.e. national or international; continuum or non-continuum), there was statistically no significant difference between students’ levels of intercultural understanding and global engagement in the pre and post-test after one year of DP education. This suggests that the nature of IM is process based, and may take a longer period of time to develop the knowledge, skills, agency and attributes of IM. Also, schools need to identify their own unique contextual barriers and challenges to implementing IM practices and develop a strategic plan to resolve these possible obstacles.

Last but not least, it is clear that deliberate efforts are needed to provide students with experiences that foster international-mindedness (Hacking, et al., 2017; Sriprakash, Singh, and Qi, 2014). Sriprakash, Singh, and Qi (2014) found that the practices of international-mindedness were “dependent on school cultures, level of commitment from teachers and leadership teams, and level of integration and promotion across school activities” (p. 4). Furthermore, successful school practices of IM include embodying the international mind-set in long-term strategic planning, integrating school policy and practice on IM. It is important to explicitly link school events to IM, engaging the critical and creative capacities of students. Hacking, et al.’s study, (2017) revealed that schools can nurture international-mindedness through their standards and curriculum. Hansen (2011) emphasized that it is the responsibility of schools to raise students’ awareness of global perspectives and develop an appreciation of other points of view if they will educate a new generation of global citizens. As an example, schools can provide activities such as Model United Nations, Global Issues Network,
European Youth Parliament and so on to promote this awareness of global perspectives and an appreciation of other points of view. Such extracurricular activities “relate directly to the institutional primary task of providing an international curriculum” (Bunnell, Fertig and James, 2017, 311). This suggests that all in all, international-mindedness should permeate the ethos of the school (Swetz and Swetz, 2014).

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Appendices

Appendix A: Demographic Information Survey for IBDP Students

[This survey was adapted from two IBDP surveys developed by Dr. Robin Ann Martin and MA students at Bilkent University. Permission was given to use all items.]

1. What is your IB ID number (if not yet given- school ID number)? _________

2. What is the name of your school? _________

3. In what year were you born? 19 __ __

4. What is your gender? __ Female __ Male

5. Which IB grade level are you in?
   __ 11th grade (or IBDP, year 1) __ 12th grade (or IBDP, year 2)

6. Including this year, how many years have you been an IB student? (Estimate total PYP, MYP, and DP years. Use numbers only.) _____

7. How many years have you been in schools whose students come from a variety of cultures? (Enter a number.) _____

8. What is your ethnic background?

☐ African American ☐ Native American ☐ Caucasian/White

☐ Asian ☐ Hispanic ☐ Other: _________

9. Please list which languages below, if any, you can speak other than your native tongue.

   My native tongue is _________________________

   (An advanced proficiency level means you have fully operational command of the language: appropriate, accurate and fluent with complete understanding, in a variety of contexts. Beginner proficiency means you are starting to learn the language. Intermediate students are those language that fall in between beginner and advanced.)

Lang.1: _______ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
Lang.2: _______ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
Lang.3: _______ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
Lang.4: _______ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
Lang 5: _______ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
10 a) Have you ever studied abroad before?  □ Yes  □ No

10 b) Please explain briefly the details about any study abroad experiences, if any.

11. About how many times have you taken trips outside of your native country?
   __ Never
   __ Once or twice
   __ A few times (3-5)
   __ Many times (more than 5)

12. How would you describe the nature of your travels abroad? (Mark all that apply.)
   __ Have never traveled outside of my home country
   __ Short travel with family, a few weeks or less
   __ Extended travel with family, a month or more
   __ Independent travel, a few weeks or less
   __ Independent travel, a month or more
   __ School/Sports trips
   __ Other: __________

13. What is your main subject area in which you might want to major at university?
   o Architecture
   o Business or administration
   o Engineering
   o Foreign languages
   o History
   o Language or literature studies in my native tongue
   o Law or legal professions
   o Mathematics
   o Medicine or health professions
   o Sciences (biology, chemistry, neuroscience, etc.)
   o Social sciences (economics, psychology, social science, etc.)
   o Other: __________

14. Which of the following best describe your long-term career goals?
   __ Study and work in places around the world
   __ Work in my home country in an international business or field
   __ Work in my home country in a specialty area, not necessarily international work
   __ Uncertain

15. Briefly describe your interests/hobbies/activities which relate to the aspects of international-mindedness such as multilingualism, intercultural understanding and global engagement.
Appendix B: Global Citizenship Scale (Adapted Version)

Permission was granted to the researchers by the authors Morais & Ogden (2010) to use and adapt this survey.

Global Citizenship Survey

Part A: Please indicate how strongly you agree or disagree with the following statements regarding your views of the world. Please check the circle that best describes your present thinking.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I think that most people around the world get what they should have.</td>
<td></td>
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<tr>
<td>2</td>
<td>Developed nations should make earnings around the world as fair as possible.</td>
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<tr>
<td>3</td>
<td>It is OK if some people in this world have more opportunities than others.</td>
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<tr>
<td>4</td>
<td>I think that people around the world get the rewards and punishments they deserve.</td>
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<tr>
<td>5</td>
<td>The needs of the world’s most fragile people are much more important than my own.</td>
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<tr>
<td>6</td>
<td>My nation should imitate the more sustainable and fair behaviors of other developed countries.</td>
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<tr>
<td>7</td>
<td>When there is inadequacy of food or resources, it is sometimes necessary to use force against others to get what you need.</td>
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<tr>
<td>8</td>
<td>I feel that many people around the world are poor because they do not work hard enough.</td>
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<tr>
<td>9</td>
<td>I do not feel responsible for the world’s unfairness, injustice and problems.</td>
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<tr>
<td>10</td>
<td>The world is generally a fair place.</td>
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<tr>
<td>11</td>
<td>No one country or group of people should dominate and take advantage of others in this world.</td>
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<tr>
<td>12</td>
<td>I respect and am concerned with the rights of all people, globally.</td>
<td></td>
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<tr>
<td>13</td>
<td>After all that I have been given in my life, I want to give to others in the global society.</td>
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</tbody>
</table>
**Part B:** Please indicate how strongly you agree or disagree with the following statements regarding your abilities to function in the world. Please check the circle that best describes your present thinking.

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am confident that I can succeed and flourish in any culture or country.</td>
<td></td>
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<td></td>
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<tr>
<td>2</td>
<td>I unconsciously adapt my behavior, traits and habits when I am interacting with the people of other cultures.</td>
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<tr>
<td>3</td>
<td>I often adapt my communication style to other people’s cultural background.</td>
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<tr>
<td>4</td>
<td>I know how to develop a plan to help ease a global environmental or social problem.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>I am able to communicate in different ways with people from different cultures.</td>
<td></td>
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<td></td>
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<tr>
<td>6</td>
<td>I am knowledgeable about recent issues that affect international relations.</td>
<td></td>
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<tr>
<td>7</td>
<td>I know several ways in which I can make a difference on some of this world’s most worrying problems.</td>
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<td></td>
</tr>
<tr>
<td>8</td>
<td>I am fluent in more than one language.</td>
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</tr>
<tr>
<td>9</td>
<td>I am able to get other people to care about the global problems that concern me.</td>
<td></td>
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<tr>
<td>10</td>
<td>I am pleased with working with people who have different cultural values from me.</td>
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<tr>
<td>11</td>
<td>I feel comfortable expressing my opinions about an insistent global problem in front of a group of people.</td>
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</tr>
<tr>
<td>12</td>
<td>I can help people from other cultures to interact better by helping them to understand each others’ values and practices.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>13</td>
<td>I am able to write an opinion letter to a local media source expressing my concerns over global unfairness and issues.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Part C: Please indicate how likely it is that you will be doing each of the following actions by checking the circle that best corresponds with your present thinking.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If possible, I will always buy fair-trade (legal and equitable trade) or local products and brands.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>2</td>
<td>In the future, I will contact a newspaper or radio to express my concerns about global environmental, social or political problems.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>3</td>
<td>In the future, I plan to do volunteer work to help individuals and communities abroad.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>4</td>
<td>In the future, I will express my views about international politics on a website, blog, or chat-room.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>5</td>
<td>In the future, I will participate in a walk, dance, run or bike ride in support of a global cause.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>6</td>
<td>In the future, I will sign an email or a request letter to help individuals or communities abroad.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>7</td>
<td>In the future, I will volunteer my time working to help individuals or communities abroad.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>8</td>
<td>In the future, I plan to get involved with a global humanitarian organization or project.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>9</td>
<td>In the future, I will deliberately buy brands and products that are known to be supportive of minority people and struggling places.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>10</td>
<td>In the future, I will contact or visit someone in government to look for public action on global issues and concerns.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>11</td>
<td>In the future, I plan to help international people who are in difficulty.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>12</td>
<td>I will boycott brands or products that are known to harm marginalized (demeaning) global people and places.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>13</td>
<td>In the future, I plan to get involved in a program that addresses the global environmental crisis.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>14</td>
<td>In the future, I will display and/or wear badges/stickers that promote a more just and fair world.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>15</td>
<td>In the future, I will work informally with a group toward solving a global humanitarian problem.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>16</td>
<td>In the future, I will participate in a live music or theatre performance or other event where young people express their views about global problems.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
<tr>
<td>17</td>
<td>In the future, I will pay a membership or make a cash donation to a global charity.</td>
<td>① ② ③ ④ ⑤</td>
</tr>
</tbody>
</table>
Appendix C: Intercultural Development Inventory (IDI)

The Intercultural Development Inventory (IDI) is the cross-cultural assessment of intercultural competence used to build intercultural competence to achieve international and domestic diversity and inclusion goals and outcomes. The Intercultural Development Inventory, or IDI, assesses intercultural competence through a 50-item questionnaire, available online that can be completed in approximately 30 minutes. Since it is a propriety instrument, the full version of the assessment cannot be shared. Only sample items can be provided from https://idiinventory.com/.

Samples for Denial
It is appropriate that people do not care what happens outside their country.
People should avoid individuals from other cultures who behave differently.

Samples for Defense
Our culture’s way of life should be a model for the rest of the world.

Samples for Reversal
People from our culture are less tolerant compared to people from other cultures.
Family values are stronger in other cultures than in our culture.

Samples for Minimization
Our common humanity deserves more attention than culture difference.
Human behavior worldwide should be governed by natural and universal ideas of right and wrong.

Samples for Acceptance
I have observed many instances of misunderstanding due to cultural differences in gesturing or eye contact.
I evaluate situations in my own culture based on my experiences and knowledge of other cultures.

Samples for Adaptation
When I come in contact with people from a different culture, I find I change my behavior to adapt to theirs.

Samples for Cultural Disengagement
I do not identify with any culture, but with what I have inside.
I do not feel I am a member of any one culture or combination of cultures.
Appendix D: Interview Protocol (Coordinators, Administrators)

The Development of International-Mindedness in Turkey: The Implementation of IBDP Core Components to Foster Students’ Multilingualism, Intercultural Understanding and Global Engagement

Thank you again for taking the time to talk with me regarding the core components (CAS, TOK, EE) in the IB Diploma Programme. This interview should take approximately 45-60 minutes. The purpose of this interview is to understand your thoughts and perceptions of how the implementation of the core components foster the development of international-mindedness at your school. Information from this interview and other data we collect from your school will be included in a brief report that we will share with your school. In our report of findings, you will not be individually identified, nor will the school be identified.

I would like to tape record our interview in order to accurately capture everything you tell me. Do I have your permission to record this interview with you?

INTERVIEWER: [If yes, turn on voice recorder and proceed.] I am here with [respondent name], at [school name], and today is [name of day, month, and date]. “Do I have your permission to record the interview?”
Interview Questions

1. How would you define what international-mindedness is?
2. How important do you think international-mindedness is at your school?
3. What does multilingualism mean to you? Do the core components support students in terms of developing their multilingualism? If yes, how? Can you give any evidence or examples to illustrate it?
4. What does intercultural understanding mean to you? Do the core components support students in terms of developing their intercultural understanding? If yes, how? Can you give any evidence or examples to illustrate it?
5. What other learning opportunities does school provide to accomplish intercultural goals and address intercultural issues? (theatre, film, arts, books, site visits, intercultural journals, personal interactions, travel?)
6. What does global engagement mean to you? Do the core components support students in terms of developing their global engagement? If yes, how? Can you give any evidence or examples to illustrate it?
7. Based on the support you have described, how would you describe the impact of the core components in terms of the development of internationally-minded individuals?
8. Please describe the pedagogical strategies and the policies that are implemented in the school that support international-mindedness (teachers, coordinators, and admin only)
9. What kind of professional development sessions are teachers and coordinators given to help improve their skills for supporting IM as they deliver the core components? (teachers, coordinators, and admin only)
10. Does your school evaluate students’ development of IM? If yes, how does your school assess IM? Why have you chosen this method of assessment? Is it effective? Why, why not? (to be asked depending on time)
11. What are the current challenges of the implementation of international-mindedness in your school? How are you addressing the challenges, if any?
12. Is there anything else on the development of international-mindedness you might like to share that we did not cover?

Thank you very much for your time!
Appendix E: Focus Group Protocol (CAS, TOK, EE Teachers and Students)

The Development of International-Mindedness in Turkey: The Implementation of IBDP Core Components to Foster Students’ Multilingualism, Intercultural Understanding and Global Engagement

Hello, I am Akın Metli. Thank you again for taking the time to talk with me regarding the core programme.

The purpose of this focus group is to understand your perceptions of how the implementation of the core components foster the development of international-mindedness at your school. Your responses will be used to help inform the multiple case study research and to give us a sense of how core develops internationally-minded individuals.

This meeting should take approximately 45-60 minutes. [Can anyone stay longer if needed?] Information from this focus group and other data we collect from your school will be included in an oral report that we will submit to your school. In our reporting of findings, you will not be individually identified by name or position. The report will provide aggregate information on the school. All your responses will remain confidential and we will not share your responses with any of your program administrators.

I will be taking notes as we talk and would also like to tape-record our conversation to ensure accuracy. Do we have your permission to tape-record this conversation? [Need signed consents.]

Since I will be relying on our tape-recording to clean up my notes, please state your first name when you answer a question and share your thoughts.

This is a group conversation so I will also ask everyone to feel comfortable to share your thoughts and add comments freely but not to interrupt each other.
Focus Group Questions

1. How would you define what international-mindedness is?
2. How important do you think international-mindedness is at your school?
3. What does multilingualism mean to you? Does CAS/TOK/EE develop students’ multilingualism? If yes, how does CAS/TOK/EE support students in terms of developing their multilingualism? Can you give any examples and evidence to illustrate your points?
4. What does intercultural understanding mean to you? Does the school encourage students to consider the contexts and views of others? If yes, how does CAS/TOK/EE develop students’ intercultural understanding skills? Can you give any examples and evidence to illustrate your points?
5. What does global engagement mean to you? Does the school encourage students to do an exploration of issues of global significance? If yes, how does CAS/TOK/EE support students in terms of developing their global engagement? Can you give any examples and evidence to illustrate your points?
6. Have you ever taught the PYP and / or MYP? If yes, how do you think PYP and/or MYP helped students prepare for the core components and their development of international-mindedness? (for teachers only)
7. Does CAS /TOK/EE support students in terms of the IB Learner Profile? If yes, how does CAS /TOK/EE help students gain the attributes of the Learner Profile? What attributes does it promote more and why? Can you give any examples and evidence to illustrate your points?
8. What are the general challenges of CAS/TOK/EE in how it is able, or not, to foster IM?
9. What kind of support is given to you to help improve students’ skills for IM as you deliver CAS /TOK/EE? (e.g. professional development sessions on IM, evaluation meetings on IM related objectives, action plans on the development of IM, etc.) (for teachers only)
10. How would you describe the impact of CAS/TOK/EE on students (or teachers) in terms of developing internationally-minded individuals?
11. Is there anything else you might like to share that we did not cover on the implementation of CAS /TOK/EE in terms of the development of international-mindedness?

Thank you very much for your time!
## Appendix F: Observation Protocol for TOK Classes

<table>
<thead>
<tr>
<th>Name of Observer:</th>
<th>Grade Level:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation Date and Time:</td>
<td>Subject-Unit:</td>
</tr>
<tr>
<td>Lesson Objectives:</td>
<td>Number of Students:</td>
</tr>
</tbody>
</table>

### TOK Lesson Observation Form

<table>
<thead>
<tr>
<th>Factual Notes</th>
<th>Opportunities and Challenges for Multilingualism, Intercultural Understanding and Global Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classroom Environment</strong></td>
<td><em>How is the TOK classroom decorated? (In particular, what, if anything, is there hanging on the classroom walls that would relate to one of the aspects (multilingualism, intercultural understanding and global engagement) of IM?</em>)</td>
</tr>
</tbody>
</table>
| **Learning (IM related evidence of student learning)** | *Examples students give?*  
*Questions or new ideas that students initiate?*  
*How students respond to each other?*  
*How teacher may learn in relation to students?* |
| **Teaching (IM related pedagogy)** | *Topics of discussion?*  
*Initial questions & onward probing questions?*  
*Questions/comments that build from students’ ideas?*  
*Other techniques used to elicit inquiry/discussion?* |
| **Interaction Patterns** | *Teacher talk time*  
*What proportion of students are active participants?*  
*How often do student initiate new topics/questions?* |

---

58
### Post Lesson Observation

<table>
<thead>
<tr>
<th>Questions to Observed Teacher</th>
<th>Observed Teacher Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>(How) Did you plan to develop IM in the observed class? What challenges or opportunities did you see?</td>
<td></td>
</tr>
<tr>
<td>Were there any examples in the lesson that you felt were good internationally-minded teaching? What may have prevented students from sometimes going deeper into discussions about cultural differences or challenging their own assumptions?</td>
<td></td>
</tr>
<tr>
<td>Did students show international-mindedness in the lesson I just observed? What evidence did you see of that today?</td>
<td></td>
</tr>
<tr>
<td>How did this lesson relate to their overall IM with this class?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix G: School Audit Form

Observations on School Culture

SCHOOL ETHOS AND AIMS

1. Is the school Mission Statement – or similar- visible? What location?
2. Is the IB Mission Statement visible? What location?
3. Is the IB Learner Profile evident? What location?
4. Is there a flag/ flags being flown at the school entrance? Nationality? Are there flags around the school? Which flags?
5. Is the history of the school evident and being told?

COMMUNICATION/ LANGUAGE/TERMINOLOGY

1. Are there notices on the walls? What about and in which languages?
2. If there are Visual Display Units what is displayed and in what languages?
3. What is the language of the signage?
4. Is there a ‘Welcome’ sign evident? What languages?

CELEBRATING DIVERSITY

What artistic images (sounds) are evident / on display? What is the type/ origin? Art / Poetry / Literature / Music?

Do displays seem to celebrate diversity, e.g. positive examples of different cultures, genders, abilities and family groups?

1. Are there any religious artefacts evident? Which religions?
2. Are there other cultural artefacts evident? Which cultures?
3. What type of food is served (cultural origins?) Is there information about meals/ food/ origins displayed?
VIEWPOINTS AND GLOBAL/ LOCAL PERSPECTIVES

Is there any evidence of;

1. active global engagement on display around the school e.g. special events/ international links/ partnerships/charitable work etc. ?
2. active local engagement on display around the school e.g. special events/ community links/ partnerships/charitable work etc. ?
3. a commitment to sustainable development /care for the environment near and far e.g. signage about energy/ water use, waste?

OVERALL

Overall impression e.g. What is your overall impression of the balance between local/ regional/ national and international perspectives around the school?

Appendix H: School Documents Requested for Analysis

We request the following documents from each participating school. These documents will enable the researcher to review how international-mindedness is fostered through the core components in the DP, school culture and extra-curricular activities, along with school policies or other documents that may influence how international-mindedness (IM) is enacted in each school. For samples of student work, it will be requested that students’ names are removed.

-------- Extended Essays related with aspects of IM such as multilingualism, intercultural understanding and global engagement

-------- CAS Portfolios / CAS reflection reports related with aspects of IM such as multilingualism, intercultural understanding and global engagement

-------- TOK essays / course implementation plans / lesson plans / activities related with aspects of IM such as multilingualism, intercultural understanding and global engagement

-------- A recent IB five-year evaluation report of the section that describes how IM, CAS, EE and TOK were evaluated

-------- School mission/vision statements

-------- Strategic school plan, any sections that reference the core components and short-term/long term curricular planning related with aspects of IM such as multilingualism, intercultural understanding and global engagement

-------- School Staff Handbook

-------- Brief summary of professional development opportunities for IM that your school has made available to teachers, students and coordinators/administrators

-------- Meeting agenda minutes and/or notes where IM related aspects such as multilingualism, intercultural understanding and global engagement are discussed (in the past 12 months)

-------- School extracurricular activities handbook

-------- IB school language policy, or any other policies that may influence how IM is enacted

-------- School media (newspapers, website news, magazines, etc.) reinforcing IM in terms of multilingualism, intercultural understanding, global engagement
Appendix I: Document Analysis Rubric

IM Document Analysis Processes and Charts
IM Research Project

School: ___________________________ Dates collected: _________

DIRECTIONS: Mark copy of the document in which evidence is found using colored pens for each IM element (ML=red, IU=yellow, GE=green). Then, within each document, mark the given question (e.g., ML1, ML2, ML3, ML4; IU1, IU2, IU3; GE1, GE2, GE3) for which specific sections of the document provide evidence. If copies of documents are not available, use Part A2-Schoolwide Document Analysis Blank Form to make notes about that document. Remember to list each document also in Part 1A.1 for summarizing all relevant documents.

Part 1: List IM-related documents for each school culture/climate

<table>
<thead>
<tr>
<th>IM elements</th>
<th>Questions</th>
<th>List documents found with evidence for answering questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multilingualism</td>
<td>ML-0: What languages are used in writing each document reviewed?</td>
<td></td>
</tr>
<tr>
<td>ML-1:</td>
<td>What policies exist that support the use of 2 or more languages in the school?</td>
<td></td>
</tr>
<tr>
<td>ML-2:</td>
<td>What news or announcements over past year discuss the use of more than one language at the school?</td>
<td></td>
</tr>
<tr>
<td>ML-3:</td>
<td>What achievements or events are highlighted in recent months about students' multilingualism?</td>
<td></td>
</tr>
<tr>
<td>IU:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercultural understanding</td>
<td>IU-1: What policies exist that encourage students or staff to develop their ICC?</td>
<td></td>
</tr>
<tr>
<td>IU-2:</td>
<td>What news or announcements have been posted in past year for events or activities that promote a form of ICC in the school or greater community?</td>
<td></td>
</tr>
<tr>
<td>IU-3:</td>
<td>What events have been described in past year that celebrate intercultural awareness or illustrate learning about other cultures?</td>
<td></td>
</tr>
</tbody>
</table>
Part 2: IM Project Document Analysis – Schoolwide document

Use a separate copy of this form for recording EACH particular document that evidences IM issues about school culture/climate.

School: __________  Document reviewed: ________________________________

ML-0: Is more than one language used in this document? Yes / No
If so which ones were used? ______________

<table>
<thead>
<tr>
<th>IM Element: Section of document where evidence is found</th>
<th>Briefly discuss breadth or depth of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML: Multilingualism:</td>
<td>e.g., ML1: p.3, para 5, ML4: Part 5, sec 1</td>
</tr>
<tr>
<td>ML-1: Policies</td>
<td></td>
</tr>
<tr>
<td>ML-2: News about using language</td>
<td></td>
</tr>
<tr>
<td>ML-3: Achievement about multilingualism</td>
<td></td>
</tr>
<tr>
<td>ML-4: Other</td>
<td></td>
</tr>
</tbody>
</table>
### IU: Intercultural understanding:
- IU-1: Policies
- IU-2: News about ICC in community
- IU-3: Events that celebrate IC awareness
- IU-4: Other

### GE: Global engagement:
- GE-1: Policies
- GE-2: News about local/global links
- GE-3: Actions that benefit others (not students doing it)

---

**Part 3: EE/CAS/TOK student documents (essays and portfolios) – Summary List**

DIRECTIONS: Give each student document a Doc ID number. Then, mark copy of the document in which evidence is found using colored pens for each IM element (ML=red, IU=yellow, GE=green). Then, within each document, mark the given question (e.g., ML5, ML6, IU7, IU8, GE9, GE10, etc) for which specific sections of the document provide evidence. If copies of documents are not available, use Part B.2 – Student Documents Blank Form to make notes about that document.

<table>
<thead>
<tr>
<th>Reflection / Question</th>
<th>Documents where evidence is found (Note by Doc ID)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multilingualism</strong></td>
<td>What evidence do core components (EE/CAS/TOK) documents show of students’ learning about:</td>
</tr>
<tr>
<td></td>
<td>ML-5: Language as a way of knowing?</td>
</tr>
<tr>
<td></td>
<td>ML-6: Importance of language learning?</td>
</tr>
<tr>
<td></td>
<td>ML-7: Value of foreign language skills, such as for practical access to information or interpreting experiences?</td>
</tr>
<tr>
<td></td>
<td>ML-8: Students’ expressions and understanding of the world’s rich cultural heritage</td>
</tr>
<tr>
<td></td>
<td>ML-9: Identity issues related to the use of native/foreign language/s?</td>
</tr>
<tr>
<td></td>
<td>ML-10: Authority and power relations with respect to the encoding of language</td>
</tr>
<tr>
<td>Intercultural understanding</td>
<td>What evidence do core components (EE/CAS/TOK) documents show of students’ learning about:</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>IU-5: Implicit and explicit ways of how culture is explored?</td>
</tr>
<tr>
<td></td>
<td>IU-6: Cultural practices, values, customs, traditions and habits as well as cultural diversity, cultural ambiguity and cultural differences?</td>
</tr>
<tr>
<td></td>
<td>IU-7: Understanding of own culture in global and comparative contexts?</td>
</tr>
<tr>
<td></td>
<td>IU-8: Recognition of their own perspective and the perspective of others?</td>
</tr>
<tr>
<td></td>
<td>IU-9: Knowledge and appreciation of different cultures?</td>
</tr>
<tr>
<td></td>
<td>IU-10: Appreciation of beliefs, values and ways of knowing?</td>
</tr>
<tr>
<td></td>
<td>IU-11: Aspects such as personal, ethnic, religious, regional, gender, sexual orientation, national cultures and identities?</td>
</tr>
<tr>
<td></td>
<td>IU-12 Ways of dealing with cultural challenges or dilemmas such as identifying, engaging with and reflecting on these conflicts and challenges?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global Engagement</th>
<th>What evidence do core components (EE/CAS/TOK) documents show of students’ learning about:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GE-5: Investigation of the world beyond its immediate environment?</td>
</tr>
<tr>
<td></td>
<td>GE-6: Ways of communicating ideas with a diverse audience?</td>
</tr>
<tr>
<td></td>
<td>GE-7: How to translate ideas into action?</td>
</tr>
<tr>
<td></td>
<td>GE-9: Identify issues through generating questions which are researchable at the local, national and global levels?</td>
</tr>
<tr>
<td></td>
<td>GE-10: How to solve problems critically by considering diverse cultural frames of references and alternative perspectives?</td>
</tr>
<tr>
<td></td>
<td>GE-11: Ways of exploring human commonality, diversity and interconnection?</td>
</tr>
<tr>
<td></td>
<td>GE-12: How they address the local and global issues such as environment, development, conflict, rights, cooperation and governance, power and privilege?</td>
</tr>
<tr>
<td></td>
<td>GE-13: Ways of connecting the local with the global issues?</td>
</tr>
</tbody>
</table>
Part 4: IM Project Document Analysis – Student document blank form

Use a separate copy of this form for recording each particular document that evidences IM issues within samples of students’ core components documents.

School: __________ Core components: CAS /EE/TOK Doc ID: ______________

ML-0: Is more than one language used in this document? Yes / No
If so which ones were used? ______________

<table>
<thead>
<tr>
<th>IM Element: Multilingualism:</th>
<th>Briefly discuss breadth or depth of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML:</td>
<td>e.g., ML6: p.3, para 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IU: Intercultural understanding:</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>GE: Global engagement:</th>
<th></th>
</tr>
</thead>
</table>
### International-Mindedness Research Project, 2016-2017

#### School characteristics related with International-mindedness (IM)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBDP student characteristics</td>
<td></td>
</tr>
<tr>
<td>IBDP staff characteristics</td>
<td></td>
</tr>
<tr>
<td>Overview of school</td>
<td></td>
</tr>
<tr>
<td>IM Definitions</td>
<td></td>
</tr>
<tr>
<td>Perceived significance of IM</td>
<td></td>
</tr>
<tr>
<td>School culture and climate</td>
<td></td>
</tr>
<tr>
<td>Examples and claims about IM</td>
<td></td>
</tr>
<tr>
<td>Schoolwide pedagogical strategies and policies for supporting IM</td>
<td></td>
</tr>
<tr>
<td>PD supports for teachers on IM</td>
<td></td>
</tr>
<tr>
<td>Discussion on assessing IM</td>
<td></td>
</tr>
<tr>
<td>Learner Profile links</td>
<td></td>
</tr>
<tr>
<td>PYP/MYP links</td>
<td></td>
</tr>
<tr>
<td>Other IBDP core components that are mentioned as supports or challenges for IM</td>
<td></td>
</tr>
</tbody>
</table>

#### Multilingualism in the IBDP, with attention to core components

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions of multilingualism</td>
<td></td>
</tr>
<tr>
<td>Schoolwide examples of supports for multilingualism</td>
<td></td>
</tr>
<tr>
<td>Schoolwide challenges/barriers to supporting multilingualism</td>
<td></td>
</tr>
<tr>
<td>CAS examples and supports for multilingualism</td>
<td></td>
</tr>
<tr>
<td>Barriers of CAS in supporting multilingualism</td>
<td></td>
</tr>
<tr>
<td>EE examples and supports for multilingualism</td>
<td></td>
</tr>
<tr>
<td>Barriers of EE in supporting multilingualism</td>
<td></td>
</tr>
<tr>
<td>TOK examples and supports for multilingualism</td>
<td></td>
</tr>
<tr>
<td>Barriers of EE in supporting multilingualism</td>
<td></td>
</tr>
<tr>
<td>Other issues of multilingualism</td>
<td></td>
</tr>
</tbody>
</table>

**Intercultural understanding in the IBDP, with attention to core components**

<p>| Definitions of intercultural understanding |  |
| Schoolwide examples of supports for intercultural understanding |  |
| Schoolwide challenges to intercultural understanding |  |
| Schoolwide barriers to supporting intercultural understanding |  |
| IDI Results |  |
| IDI-Related: Comments that indicate monocultural or intercultural mindsets |  |
| CAS examples and supports for intercultural understanding |  |
| Barriers of CAS in supporting intercultural understanding |  |</p>
<table>
<thead>
<tr>
<th>EE examples and supports for intercultural understanding</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Barriers of EE in supporting intercultural understanding</td>
<td></td>
</tr>
<tr>
<td>TOK examples and supports for intercultural understanding</td>
<td></td>
</tr>
<tr>
<td>Barriers of TOK in supporting intercultural understanding</td>
<td></td>
</tr>
<tr>
<td>Other issues of intercultural understanding</td>
<td></td>
</tr>
</tbody>
</table>

**Global engagement in the IBDP, with attention to core components**

<table>
<thead>
<tr>
<th>Definitions of global engagement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Schoolwide examples of supports for global engagement</td>
<td></td>
</tr>
<tr>
<td>Schoolwide barriers to supporting global engagement</td>
<td></td>
</tr>
<tr>
<td>GCS Results</td>
<td></td>
</tr>
<tr>
<td>GCS-Related: Other comments that indicate notions of global competence</td>
<td></td>
</tr>
<tr>
<td>CAS examples and supports for intercultural understanding</td>
<td></td>
</tr>
<tr>
<td>Barriers of CAS in supporting global engagement</td>
<td></td>
</tr>
<tr>
<td>EE examples and supports for global engagement</td>
<td></td>
</tr>
<tr>
<td>Barriers of EE in supporting global engagement</td>
<td></td>
</tr>
<tr>
<td>TOK examples and supports for global engagement</td>
<td></td>
</tr>
<tr>
<td>Barriers of TOK in supporting global engagement</td>
<td></td>
</tr>
<tr>
<td>Other issues of global engagement</td>
<td></td>
</tr>
</tbody>
</table>
**Appendix K: Examples of community service projects for global engagement**

<table>
<thead>
<tr>
<th>Common areas for global engagement</th>
<th>School service projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental problems</td>
<td>• Participating in TURMEPA - clean water project- activities in Şile, Istanbul</td>
</tr>
<tr>
<td>Refugee problems</td>
<td>• Doing activities with Syrian refugee kids such as preparing Christmas boxes as gifts to give them morale and motivation</td>
</tr>
<tr>
<td></td>
<td>• Raising funds for refugees (Refugee Outreach Project)</td>
</tr>
<tr>
<td>Disabled/disadvantaged people</td>
<td>• Working with visually impaired women in Turkey to teach origami</td>
</tr>
<tr>
<td></td>
<td>• Working with the mentally challenged people (Best Buddies project)</td>
</tr>
<tr>
<td></td>
<td>• Dance performance project for an association of the orthopedically handicapped</td>
</tr>
<tr>
<td></td>
<td>• Providing English language teaching activities to the younger kids who were academically disadvantaged</td>
</tr>
<tr>
<td>Working with the minorities</td>
<td>• Raising awareness on LGBT</td>
</tr>
<tr>
<td></td>
<td>• Developing projects to learn sign language</td>
</tr>
</tbody>
</table>
Appendix L: Examples of EEs in the Humanities of fostering intercultural understanding

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Research Topic/Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>• What would be the economic consequences of incentives in sales of land, housing and office space to foreigners in Turkey?</td>
</tr>
<tr>
<td>Literature</td>
<td>• To what extent do the lyrics of rap and hip hop music by some popular Afro-American artists such as DJ Khaled, Eazy E., Tyga and Kanye West affect the way Afro-American people are portrayed in the society?</td>
</tr>
<tr>
<td>World Studies</td>
<td>• The effects of the Communist regime on Uzbekistan’s current economic problems in relations with Uzbek history</td>
</tr>
<tr>
<td>Philosophy</td>
<td>• To what extent can the idea and practice of epicurean communes be applied as educational systems in 21st century Europe?</td>
</tr>
<tr>
<td>Anthropology</td>
<td>• To what extent has spiritual and religious music infiltrated mainstream popular culture, and as a result, offered therapeutic outcomes to the masses?</td>
</tr>
<tr>
<td>History</td>
<td>• The 12 September 1980 Coup d’État in Turkey: A Justified Use of Force? Considering its curtailment of human rights and freedoms, was the 1980 Turkish coup d'état a justified use of force to restore democracy?</td>
</tr>
</tbody>
</table>
Appendix M: Authors’ Biographies & Authors’ Collaborative Work

Authors’ Biographies

Akin Metli, MA: Metli graduated from English Teacher Education BA and MA combined thesis program, Bilkent University, Ankara, Turkey, in 2008. He has been working at a unique scholarship laboratory school with international programmes (IGCSE/IBDP), Bilkent Erzurum Laboratory School (BELS), in Erzurum, Turkey, since 2008. He is currently the high school principal at BELS. Before being a school principal, he was engaged in different leadership positions such as the Head of English Department, IBDP coordinator and Vice Principal at the same school. Other than holding various administrative and leadership positions, he had also taught IB English B/A2 courses. Currently, he has been teaching Theory of Knowledge (TOK) course in DP since 2010 at BELS. He is also a TOK examiner for the IB since 2013. In addition to his teaching and leadership responsibilities, Metli has always had a keen interest in research driven pedagogy. He is presently pursuing his PhD in Curriculum and Instruction, at the Graduate School of Education, Bilkent University. His interest on the mission of the IB to develop internationally-minded world citizens has driven his doctoral research in exploring student and teacher perceptions of the development of international-mindedness through the core components (TOK, CAS, EE) in the Turkish context.

Robin Ann Martin, PhD: With an MA in Educational Psychology, Martin began her career working on instructional design and career planning projects for American College Testing. Then, from 1998 to 2006, she studied and engaged in research projects with small, creative holistic schools around the United States. After finishing her doctorate about a small case study school in California, she helped to found Holistic Education Inc. in Portland, Oregon, with ongoing interests in the lived practices of relational approaches to teaching and learning. Since 2006, she has worked abroad (in Oman, Turkey, and now Malaysia) with teachers from many backgrounds, and from 2010 to 2018, she worked especially with IB schools and MA thesis students around understanding how the core curricula contribute to learning within the Diploma Programme. Her combined experiences of holistic education and international education have greatly informed Martin’s approach, analysis, and interpretation of qualitative research. In the summer of 2018, Martin will be returning to her passion of working with a holistic k-12 school again, this time in Thailand, where the holistic development of students is given priority through experiential and project-based learning.

How authors worked collaboratively for this research

This report was developed in collaboration over several years between Metli and Martin. They worked together in person in Turkey across many meetings to develop and design the research project in 2015-2016, alongside the early chapters of Metli’s doctoral dissertation. Then, Metli conducted all of the data collection on his own, while Martin moved on from Turkey. However, they continued working together by debriefing after all the data collection points, both contributed to the transcribing process and later developed the thematic analysis and together did the qualitative data analysis, along with writing and editing profile reports for the case study schools. Metli was in charge of the quantitative analysis, while Martin edited. Final reports and papers were also developed primarily by Metli and edited by Martin. The overall teamwork and back and forth questioning and Skype meetings were invaluable to the research process and to the final output of the present report. Metli’s PhD thesis (2018) provides a much more detailed account of the full research process, analysis, and findings.