Research summary

Universal design for learning (UDL) and inclusive practices in IB World Schools

Summary developed by the IB Research department based on a report prepared by:

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Background

The International Baccalaureate (IB) is committed to ensuring that inclusive education is practised in IB World Schools. IB guidelines include references to universal design for learning (UDL) as a framework that can be used for inclusive education. UDL focuses on creating accessible learning environments for all learners, including students with disabilities, students from culturally and linguistically diverse backgrounds and students who are gifted and talented. This exploratory study examined how IB educators implement inclusive practices and UDL in their classroom and school settings. Data was collected using an online survey and participant interviews to gather information on how inclusive practices are being implemented by teachers and administrators across all three IB regions (Africa, Europe, Middle East; Asia-Pacific; the Americas).

Research design

This exploratory study used a qualitative research design, including document analysis and a literature review, a large-scale survey (n = 127) and interviews with selected participants (n = 10) in order to develop case stories on a set of schools.

A 60-item survey (see "Appendix B" in the full report) was developed for this study and disseminated to IB coordinators, teachers and administrators. The survey questions elicited information from participants on their knowledge of inclusive practices in general, as well as their knowledge and implementation of the UDL guidelines[1] in particular.

The researchers also conducted interviews with selected participants in order to develop case stories of inclusive practices and UDL implementation at IB World Schools in each region. Ten interviews were conducted in all, and four case stories were developed for the Africa, Europe, Middle East region, three for the Asia-Pacific region and three for the Americas region.

Findings

Theoretical framework

UDL is based on the concept of universal design (UD), which was developed in the 1980s by a group of architects and engineers. The original UD model focused on providing physical access to the environment under the premise that environments could be made more accessible to all when they are designed with people with disabilities in mind. UDL extended this concept to the learning environment, with a focus on increasing access to curriculum and instruction.

By designing for learner variability from the outset, educators can create environments that are inclusive and accessible for all. The ultimate goal of UDL is to support the design of high-quality learning environments that allow students to become "expert learners". The guidelines and expert learner goals are delineated in the one-page overview of UDL in "Appendix A" of the full report.

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[1] A web-based version of the UDL guidelines is available at http://www.udlcenter.org/aboutudl/udlguidelines.

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The IB and UDL

A review of IB documents on the standards for curriculum and practice illustrates that IB philosophy and practices are well-aligned with the guiding tenets of UDL. IB guidelines emphasize the need to consider student diversity at various levels, from school philosophy, to organization, to instructional practices. The IB focus on reducing barriers and providing teaching and learning approaches that support and engage all learners is consistent with UDL's central premise of addressing learner variability by proactively designing instruction for all learners.

Understanding of UDL and inclusive practices

To gain information on their general knowledge of inclusive practices, participants were asked about their use of flexible and differentiated instructional strategies, provision of scaffolds for learning and strategies for engaging students. Teachers reported implementing various flexible and differentiated strategies, and provided examples of ways they took learner variability into account during lessons. Although less than one-fifth of the survey participants reported having knowledge about UDL, and almost half rated themselves as completely unfamiliar with UDL terminology, a majority of participants were familiar with concepts related to using flexible methods, materials and assessments, which are core practices within UDL. Similarly, most of those interviewed for the case stories were not familiar with UDL but were highly proficient in using various inclusive instructional strategies that align with UDL.

Implementation of UDL and inclusive practices in the classroom

IB educators use a range of inclusive instructional strategies that align with the UDL guidelines. The researchers summarize the instructional strategies that were frequently mentioned in the surveys and case stories as follows.

UDL principle I: Provide multiple means of representation

- Use a range of multimodal tools and resources to provide information through a combination of visual, auditory, oral and text-based formats. Teachers use digital media and technology extensively to provide varied options for students to learn about topics and new information in engaging and authentic ways.
- Provide various supports for vocabulary and comprehension. Examples of strategies include presenting information in varied formats, highlighting key terms and using graphic organizers. Teachers are familiar with providing supports that assist with language learning, especially in international school settings with EAL learners.
- Connect new topics to prior knowledge and provide authentic entry points to help students comprehend new information. Teachers use strategies that allow students to connect information with their backgrounds, experiences and interests.

UDL principle II: Provide multiple means of action and expression

- Integrate digital and online tools into instruction to provide options for students via technology. Teachers use collaborative online environments and digital text to increase access to materials (for example, course management systems, interactive

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whiteboards, collaborative documents, manipulatives, simulations, multimodal resources and a variety of online tools).

- Provide various formats for students to express and demonstrate knowledge (for example, writing for different purposes, making videos, oral presentations, illustrations and role plays).
- Integrate opportunities for guided practice and provide scaffolds during the learning process to help students to master skills.

UDL principle III: Provide multiple means of engagement

- Connect lessons with authentic and relevant information. Teachers bring in practical applications, case stories and real-world examples that students can relate to, and give students choices based on their interests and preferences.
- Provide opportunities for group work that allow students to learn from—and with— each other, provide support to each other, develop their own knowledge and present it to others, make choices and be creative, and learn to work collaboratively with their peers.
- Use a variety of self-regulation and self-assessment tools and methods, such as rubrics and checklists, to help students set goals, progress on timelines and reflect on their learning.

Overall, a sincere passion to serve all learners was apparent among all ten interviewees, and each one attested to their school's commitment to fostering an accessible, supportive and inclusive environment for all students.

Facilitating factors

The following four key factors facilitated the integration of inclusive practices in IB World Schools.

1. **The IB philosophy:** IB educators emphasized that IB philosophy and practices support inclusive education. IB programmes have a focus on student-centred learning, active learning and interdisciplinary approaches. Strategies that support differentiation are at the core of IB approaches to teaching and learning, and educators fully supported the IB's focus on inquiry, student engagement and authentic learning.

2. **Administrative support:** Administrative support was also a key facilitator of inclusive education in IB World Schools. In the case stories, every interviewee described a strong focus on inclusion coming from the directors, head teachers or principals of their schools. The two administrators who participated in the interviews were both passionate about inclusion and held it as a deep personal value. In both of these cases, there was a strong sense of the need to include teachers, family members and the students who require the learning supports in the planning for inclusive education. These administrators also provided their faculty and staff with ongoing support to foster this inclusive environment, including PD opportunities and learning support team assistance.

3. **Learning support teams:** Schools that had learning support teams benefited from consistent, school-wide implementation of inclusive practices. For example, they had

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formal procedures for developing individual learning plans or profiles and follow-up services to assist teachers in their classrooms. In schools that had learning support teams, inclusive education services included supports for differentiation at the whole-class level, pull-out services for specific students, as needed, and ongoing collaboration between the team and the classroom teacher to ensure that the necessary scaffolds, accommodations and modifications were provided for specific students.

4. **Professional development (PD) opportunities:** IB educators had access to numerous PD activities that supported them in implementing inclusive practices. Teachers described having support from their schools to attend training in-house and externally, to study for advanced degrees and to participate in professional learning communities to expand their knowledge base. Educators were allowed to select workshops and training of interest to them. They described learning about inclusive strategies in workshops that focused on the topic and in workshops that addressed other topics, but included information on differentiation and/or inclusion.

Barriers

The barriers to implementing inclusive education in IB World Schools included the following.

- **The standardized format of external exams/assessments:** Preparing students for Diploma Programme (DP) exams that are administered in written format posed challenges for some teachers, who noted that students ultimately had to take the exam in one standard format. Although students with identified special needs could use accommodations or modifications, teachers remarked that learner variability was not addressed by some external exam formats that relied on a standard written assessment. Teachers believed that creativity, activity, service (CAS), and other experiential aspects of the IB curriculum, offer students more flexibility to truly express their capabilities.

- **Attitudes about rigour and selectivity on the part of some teachers and parents:** Some participants mentioned that school staff, especially those in international or independent college-preparatory schools, still espoused attitudes about these schools being selective. Educators who held these attitudes felt that differentiated and inclusive practices weaken academic rigour.

- **Resistance to change:** Some teachers were also resistant to change and preferred using traditional practices, such as lecture-based learning. Some IB World Schools are addressing this by evaluating, during the hiring process, whether teachers are open to inclusion. Another factor that may mitigate this challenge is that newer faculty, who have graduated from teacher preparation programmes more recently, have had more training in inclusive practices and bring this to their teaching practice from the start. Participants also mentioned some cultural barriers to inclusion. In some countries, parents selected schools based on their perception of its rigour and standards. In addition, some parents felt there was a stigma associated with the school if it was perceived to be for children with special learning needs. The IB educators who mentioned these barriers noted that, despite these issues, their schools remained committed to inclusion. They were working to educate parents and teachers on the need for inclusion and the value of having all students participate together in educational environments.

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- **Lack of time and knowledge to implement new practices:** Finally, a barrier that was often mentioned in the survey responses was a lack of time to implement new practices, and a lack of knowledge about inclusive practices. Teachers also noted that professional development that models how these practices are used in classrooms, and how these practices help specific students, would support them in effectively implementing inclusive practices.

UDL's role in fostering inclusive education in IB World Schools

In summary, this study illustrated that IB World Schools implement inclusive practices at varying levels that include the following.

- **Whole-class level:** Teachers implement inclusive instructional practices by providing flexibility, choice and scaffolds for the processes of learning. Many of the differentiated practices used by teachers are consistent with IB teaching and learning approaches. Teachers familiar with the UDL framework design instruction with clear goals and flexible methods, materials and assessments to make instruction accessible to all learners.
- **Whole-class level, with supports for specific students:** Some teachers provide supports for students who have specific needs (students with disabilities, EAL/ESL students). For example, providing flexible options within a lesson can be helpful for a student with a learning disability, but by knowing when that student can benefit most from specific supports, a teacher can target his or her interventions.
- **Student level:** Pull-out services are provided for students who need additional targeted instruction and practice on specific skills. These services are often provided at IB World Schools with learning support teams, who can develop an individualized learning plan for students who need specific supports or pull-out services.
- **Student level:** Students with identified disabilities or other special needs receive accommodations and modifications. At schools that create an individual learning plan for these students, the supports are integrated into whole-class instruction. For students with identified needs, accommodations and modifications were also provided for taking IB exams.

Recommendations

This study indicates that some teachers need more information and training on how to integrate inclusive practices effectively in the time that they have, and to support the content and skills they are teaching. Teachers could also benefit from more knowledge about how differentiated and flexible strategies support specific learner needs while concurrently addressing a range of learners in the classroom. For IB World Schools that wish to expand their current range of inclusive practices, training in UDL could provide a framework to guide and extend inclusive education.

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Summary

The results indicate that IB educators are implementing inclusive practices at high levels, although their degree of knowledge about the UDL framework itself varies. IB teachers and administrators are familiar with various strategies to differentiate instruction, integrate flexible options during instruction, and implement instructional strategies to engage and motivate all learners. The strategies these educators use are consistent with IB approaches to teaching and learning and align with UDL guidelines.

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