

Challenging and Joyful Learning

How We Redefine Rigor



北京顺义国际学校
INTERNATIONAL SCHOOL OF BEIJING

A photograph of a female teacher in a blue dress leaning over to interact with four young students outdoors. The students are gathered around a tree trunk, looking at something on the ground. In the background, there is a large, vibrant mural with abstract shapes in red, yellow, and black. The scene is set on a grassy area with some foliage.

Introduction

Redefining Rigor

From strict principals at the turn of the century to today's aspirational parents, the concept of “academic rigor” has been an important one in education, a term applied to assess a school's approach to teaching and academics.

Does it mean pushing students to their intellectual limits? Is it a challenging curriculum that ultimately leads to stressed-out students?

Though that may be the traditional definition, if embedded in the curriculum properly, “academic rigor” sets students up both for success in life and being emotionally healthy young people.

And at the International School of Beijing (ISB), the latter is what we are striving towards, embracing the idea that learning can be both challenging and joyful, because everything we do is *intentionally designed*.

From our curriculum to our facilities, from individual student experiences to our schoolwide culture and community, we are constantly reflecting on what we can do to offer relevant, modern, and intentionally designed programs for everyone.

When we say academic rigor we want people to understand the difference between difficulty and complexity, to see the importance of student choice by providing access to an intentionally designed curriculum that makes the prior two points possible.

“Rigor at ISB sees students interested in solving these deeply complex problems and part of that comes from us providing them with enough authenticity in the way that we frame the tasks and also student choice.”

- Ruth Poulsen, Director of Curriculum and Assessment (2017 - 2021)

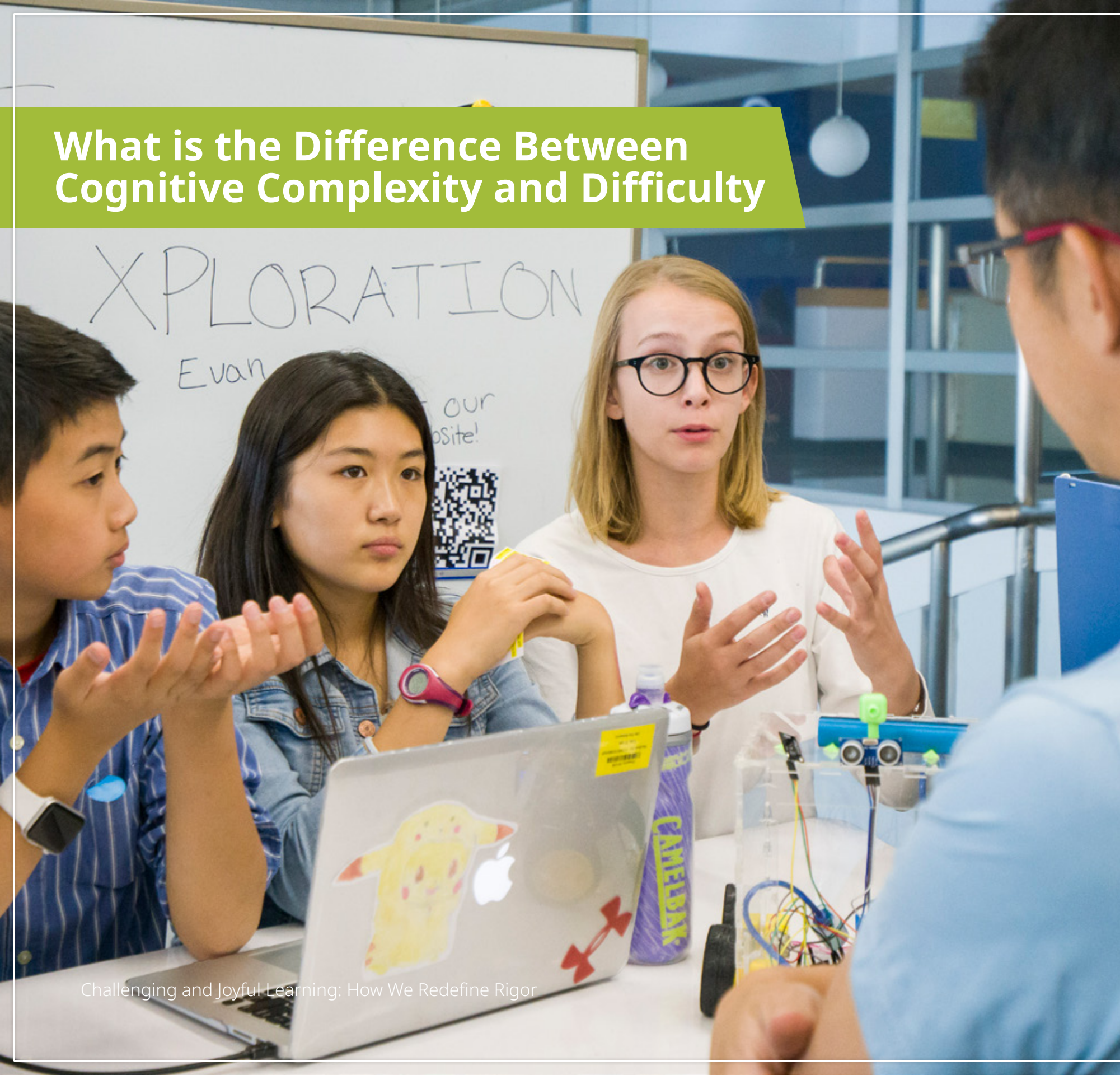
In this eBook, you'll learn more about what rigor means at ISB, including:

- Our use of cognitive complexity, specifically through our standards and Backward Design
- How student choice is pivotal to student learning
- What student choice looks like at ISB
- How our forward-thinking curriculum puts our definition of rigor to practice

Through our approach to learning, students are engaged in a variety of learning opportunities, enabling them to discover innate abilities, learn teamwork, exercise initiative, and ultimately find a productive place within the ISB community and the wider world.



What is the Difference Between Cognitive Complexity and Difficulty



"I think it's important to differentiate between difficulty and complexity. That difference will lie at the heart of how we design our curriculum and what we mean when we say 'academic rigor'."

- Ms. Poulsen, Director of Curriculum and Assessment (2017 - 2021)

So what is the difference? When this subject is laid out in front of most people, often there are more questions and confusion than an actual understanding.

Don't worry, you're not alone. But understanding the answer will truly help you understand how and why we've committed to redefining rigor.

What is Difficulty?

When you give a student a difficult assignment, it usually entails a large number of questions with the same kind of problem. Students have to apply the same algorithm repeatedly to different problems on a worksheet.

These sorts of assignments are difficult because they take hours to complete and are tedious. Rather than teach a student, difficult assignments often lead to boredom, dread, and an overall detest of school.

What is the Difference Between Cognitive Complexity and Difficulty?

According to Christopher Tienken, Ed.D, an associate professor of leadership, management, and policy, and education consultant, in his article, **"Don't Be Fooled: Complexity Versus Difficulty,"** difficult assignments don't inspire the *right* type of thinking in students.

"The difficult objective does not foster creative or strategic thinking. Difficulty only reinforces imitation and regurgitation of information and processes. An uncertain future requires students to be able to think creatively and strategically."

- Dr. Tienken, associate professor of leadership, management, and policy, and education consultant

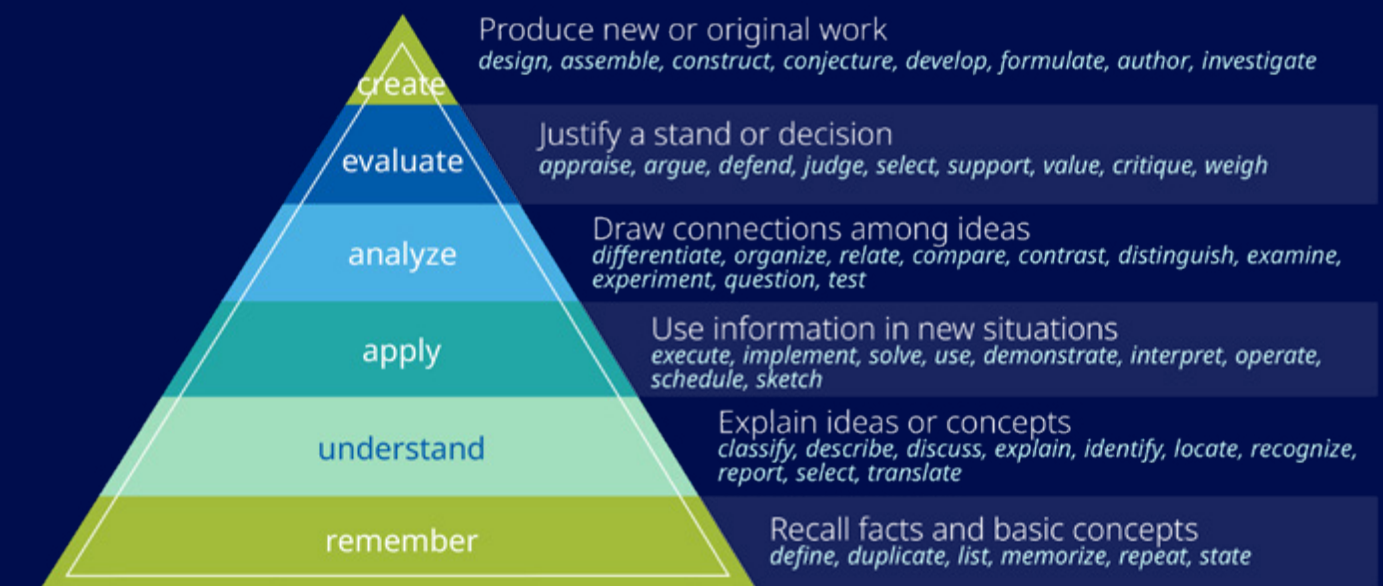
What is Complexity?

At ISB, we focus on complexity in our curriculum as it inspires our students to actually enjoy learning; it helps them learn and understand rather than memorize.

Students are given problems where they are asked to remember, understand, and apply, where they need to figure out what formulas they should use in order to solve the equation.

And how exactly do we ensure our curriculum allows for complex learning over difficult learning? We use Bloom's Taxonomy, a **hierarchical ordering of educational learning objectives** into levels of complexity and specificity.

Bloom's Taxonomy



“When we design the task, we ask ourselves if we’re designing tasks that require students to analyze, evaluate, and even create something compared to building a low-level task that just asks students to remember, understand, or apply. The difference between apply and analyze is how similar the problem we’re giving them is to a problem they’ve already seen and done in class with a teacher; if it is similar then it’s low-level cognitive complexity.”

- Ms Poulsen, Director of Curriculum and Assessment (2017 - 2021)



What is the Difference Between Cognitive Complexity and Difficulty?

To help us redefine rigor by embedding a high-level of cognitive complexity in our curriculum, we incorporate transfer, backward design, and the use of certain educational standards.

Transfer

The idea behind transfer is indicating how well our students can take what they learned and put it in a new context.

Our challenging curriculum is not only one of complexity, it's also one that teaches students in a way they can actually transfer the knowledge to other subjects - and other schools. A transferrable curriculum is one that is essential for the development of the whole child - especially in expat families who are always on the move.

Commonly, our expat families will live in a city for an average of five years and make the move either back home or to another destination abroad. Expat children need an education that is uninterrupted by relocation and to do this, it's important to choose a school with a transferrable education.

"Our daughters attended ISB from kindergarten to Grades 6 and 9 (years 7 and 10). [Upon returning to the UK] the girls were both well ahead of their peers in all subjects, and have continued to excel academically. We believe that is because of the excellent educational foundation laid down throughout their years at ISB. Thank you again for the quality of education you provided for our daughters, and for preparing them so well for their return to England."

- Christian Murphy, ISB Alumni parent



Standards

"We retain the flexibility to choose our learning standards from different educational systems around the world. What we teach at ISB is not confined by the expectations of one national system."

- Patrick Hurworth, Head of School (2017 - 2021)

The standards that we choose to define the level of cognitive complexity we expect in our students; they are the pillars of our curriculum and ensure the sense of challenge we are trying to embed in our lessons.

For example, let's look at our use of the [Common Core ELA standards](#) in Grade 12.

"[Students must] cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain."



Challenging and Joyful Learning: How We Redefine Rigor

This standard is about how students use evidence:

- We ask them to explain what the text says explicitly.
- We ask them to explain why they've drawn inferences from the text.
- We ask them to read between the lines.
- We ask them to think about how the evidence supports the reading of the text.
- We ask them where they think the text leaves things ambiguous.

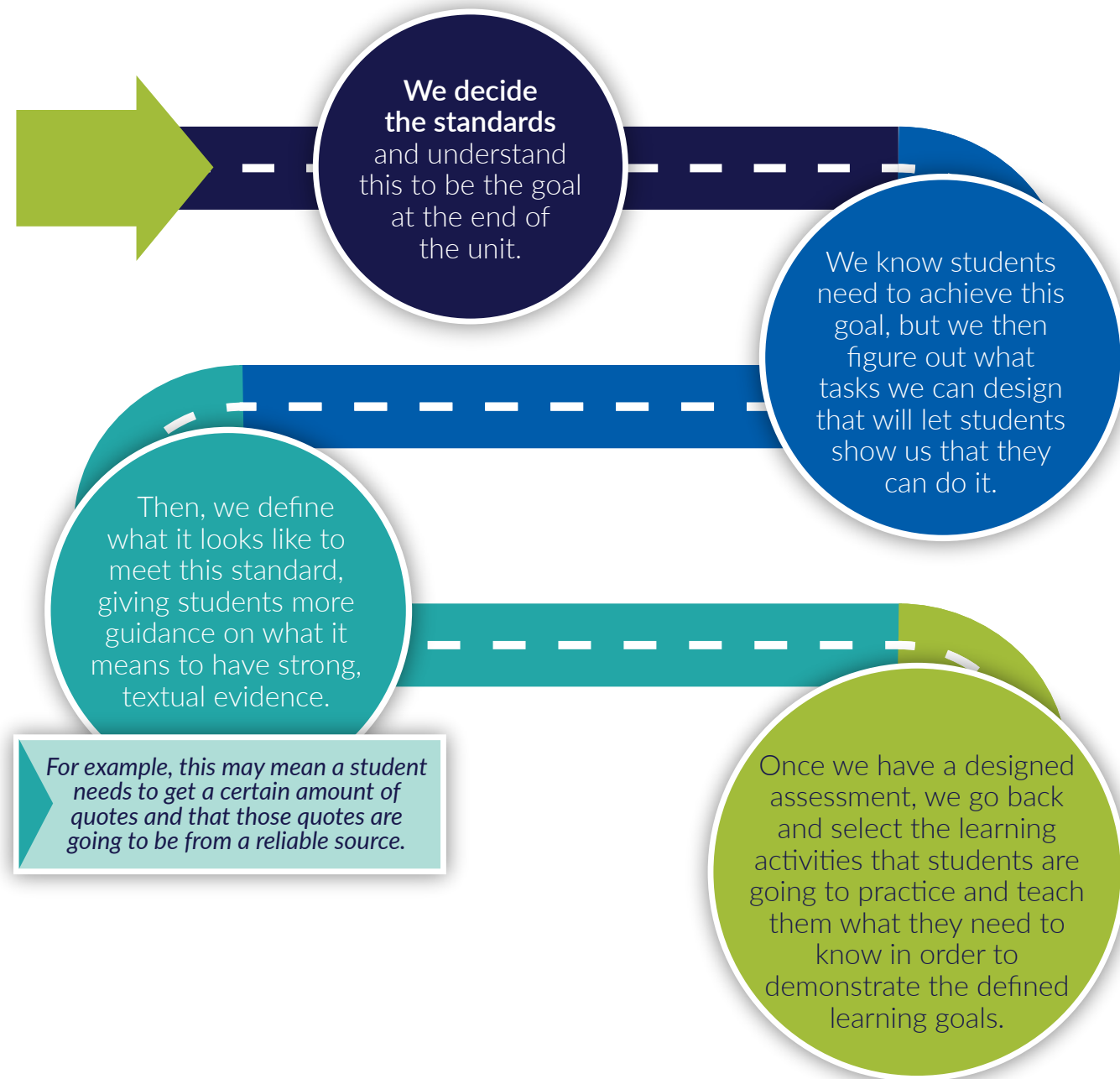
This strong and thorough textual evidence is a measurement of how well our students can pull out examples from the text they've read; this is literature analysis, the **analyze** level of Bloom's Taxonomy ([see chart on page 9](#)). If students use evidence to support a point and then further work to communicate where they are coming from, they are **creating** an argument.

"What's important about standards is they define learning goals for us."

- Ms. Poulsen, Director of Curriculum and Assessment (2017 - 2021)

Backward Design

Taking our selected standard, we work backward from this and discover how best to approach a curriculum.



Though this is not an innovative approach to teaching and challenge, there are many schools and educators who do not use backward design due to its level of complexity. Commonly, educators design activities first and then decipher the next steps.

Simply put, it's not the easiest way to teach, but it is one of the most effective ways to guarantee students meet both learning standards and the appropriate level of cognitive complexity.

"The way ISB approaches teaching, we don't feel that we are just students sitting in class, we're actively participating. We're always asked questions that spark discussions and push us to use different ways of thinking and sharing opinions rather than just having a teacher lecture and tell us the right answer."

- Hiro W., ISB Alumni

When we measure rigor, we look at cognitive complexity, we choose the best standards, we use backward design in our approach to learning, we teach in a way that allows students to transfer their knowledge, and we make sure students have choice in what and how they learn.

A photograph of two young boys playing violins in a school orchestra. The boy on the left is wearing a red shirt and the boy on the right is wearing a yellow shirt. They are both focused on their instruments. In the background, other students and adults are visible, some wearing red shirts. A green banner is overlaid on the top left of the image.

The Importance of Student Choice

Now comes the fun part! We've explored the broader themes within our use of challenge, but now we get to see it in action.

As you read through student choice and our forward-thinking curriculum, keep the above sections in mind to see how cognitive complexity, backward design, and transfer all play a role in an ISB education.

"Student choice and authenticity make a difference in whether students find work boring and perceive it as just a series of hoops to jump through versus them actually wanting to do the work. Student choice creates the difference between whether students can see work is relevant to their lives and to the world, or whether it just feels like something they have to do for a grade."

- Ms. Poulsen, Director of Curriculum and Assessment (2017 - 2021)

Beyond inspiring a love of learning, what are the tangible benefits of choice within a curriculum?

In the 2007 study of differentiated learning, ["Differentiated Instruction: The Effect on Student Achievement in an Elementary School"](#), Patricia A. Koeze says that student choice and interest "play a vital role in achievement and student satisfaction in learning".

The study also found that "students who were given a choice in their learning and whose instruction met their learning needs showed significant improvement on standardized tests."

"Choice increases positive emotions, is important because it teaches decision making, increases their interest in learning, and increases learning.

When products are differentiated, students are given a choice on how they demonstrate mastery of the standards. By giving students a choice, the teacher is developing responsibility and ownership in the students. Students take a greater responsibility in their learning because they have a vested interest in what they are producing."

- Patricia Koeze in her study, "Differentiated Instruction: The Effect on Student Achievement in an Elementary School"

When students have choice and are given the opportunity to use their voice when it comes to their learning, they are more engaged and connected to their schooling, which fosters a stronger sense of retention.

One of the areas at ISB where choice is most visible is our elective program.

ISB's Elective Program

"At most schools, students all have certain requirements for learning dictated by standards, state, and government expectations. In elective courses, students can choose what they are more interested in or try something new that they haven't had the opportunity to explore."

- Julie Lemley, Innovative Programs Leader (2016 - 2020)

The elective program at ISB not only gives students the freedom to choose, but it also develops students' skills in areas that are transferable to their chosen career paths.



For example, let's say a high school student chooses to enroll in Acting and Ensemble in the first semester of Grade 9, and then signs up for Graphic Design in the second semester, Filmmaking in the next, and Intro to Programming in the final semester.

This individual has honed many useful, real-life skills that can be applied to whatever they choose to do next.

"If that student wants to become an entrepreneur, politician, or a veterinarian, they have developed their improvisation skills and have the confidence to speak in front of people, they have the skills to design graphics for highly impactful presentations and media for a business, and they have the fundamentals for programming to problem solve and design solutions to problems in a specific field."

- Ms. Lemley, Innovative Programs Leader (2016 - 2020)

Beyond developing these tangible skill sets, students are given the chance to learn about themselves, they discover what they enjoy and how they can use them to positively impact the world.

Our elective program looks a little different in each school. [In elementary school](#), our students get to experience all of our electives: Performing Arts (Movement and Music), Visual Arts classes, PE, and STEAM – Design-related integration projects. Most ISB students also participate in our robust after-school activities (ASA) program.

[The Middle School elective program](#) is designed to provide students with the opportunity to extend their learning by selecting courses outside of the core curriculum. Students can pursue their passions or delve more deeply into the content in a chosen area. The electives program sees students taking classes in Performing Arts, Design, Visual Arts, Sports and Creative Arts.

In high school, students choose from a wide variety of electives. Each course has a highly qualified teacher and purposefully designed, student-centered learning facilities which further enhance the program. [High School electives](#) are divided into three main departments: Performing Arts, Visual Arts and Media, and Design.

Interdisciplinary Learning

Interdisciplinary courses are designed in order to increase student choice and provide different learning opportunities. The courses are a way to provide real-world experiences and take learning outside the school.

"Every student is unique and we want to offer different pathways and opportunities to each student. I think for some students they learn better when they can make connections across subject areas or some students really learn by doing or creating. My class took two trips to Cambodia, you don't get much more real-world than that."

- Kelsey Giroux, one of the leads in our innovative program of interdisciplinary learning (2014 - 2019)

According to one former ISB student, Noah M., it's this hands-on experience that has the greatest impact on learning.

"I found the course really great because it makes the stuff we're learning applicable to our lives because going there and seeing things first-hand such as how people live, the amount of money they live on, the resources they need, the facilities they have, and what we can do to help, it makes my research much more personal."

- Noah M., ISB Alumni

Find out more about our interdisciplinary learning.



Forward-Thinking in the Curriculum



Challenging and Joyful Learning: How We Redefine Rigor

By redefining rigor, we are inspiring our students to truly love learning. When students love what they're learning, they love being at school, and when they love being at school, they're more engaged, motivated, and passionate.

How do we get students to enjoy school?

We do this by offering a challenging and joyful curriculum that gives students choice to discover their passions, ([see the above section](#)) and is actually engaging. Additionally, we have programs and services in place to help students who need additional support.

So that our learning is at its best, we build strong relationships and set high expectations together. We are committed to challenging and joyful learning with the freedom to explore.

Before we explore our additional services, let's take a look at more of the curriculum which offers enjoyment, choice, and, of course, rigor.

International Baccalaureate Diploma Programme (IBDP)

"The IBDP is very uniquely respected around the world and recognized for its rigor and integrity. Universities around the world know the program, content, and its expectations so that it's very clear to admissions officers the type of candidate they are admitting."

- Belinda McRoberts, IB Diploma Programme (DP) Coordinator (2010 - 2022)

The IBDP is a challenging two-year pre-university education. It involves rigorous academic studies and promotes international-mindedness and critical thinking.

Students are encouraged to ask challenging questions, learn how to learn, develop a strong sense of their own identity and culture, and develop the ability to communicate with people from other cultures. Students who do not wish to complete the full IBDP are able to enroll in one or more IB courses, each of which receives recognition from the IB upon successful completion and contributes to the ISB Diploma.



IB programs promote the education of the whole person, emphasizing intellectual, personal, emotional, and social growth through all domains of knowledge.

IB learners strive to be:

- Inquirers
- Knowledgeable
- Thinkers
- Communicators
- Principled
- Open-minded
- Caring
- Risk takers
- Balanced
- Reflective

At ISB, the IB Diploma pass rate is consistently above 97 percent.

***"Flat out the best college prep I could have ever imagined.** While my new friends and classmates were struggling through the first few weeks and months of engineering at a top university, I felt right at home with the challenge of the IB Programme. I'm also thankful for the CAS (Creativity, Activity, Service) program that pushed me to explore new things and encouraged me to live a more balanced lifestyle."*

- Christopher N., ISB Alumni

Social-Emotional Learning

A cognitively complex curriculum partnered with the stress of trying to get into your choice college, all while maintaining a social life can be overwhelming.

That is why we have committed to our social and emotional curriculum. The framework is divided into self-awareness, self-management, social and cultural competence, nurturing relationships, and purposeful action, broken down as follows:

Self-Awareness

The ability to recognize one's own emotions, values, and identities. The ability to accurately assess one's strengths and limitations, with a well-grounded sense of confidence and growth mindset.

Self-Management

The ability to honor and manage a range of one's own emotions and thoughts. The ability to skilfully use them to inform healthy choices.

Social and Cultural Competence

The ability to empathize with the perspectives and identities of others and interact positively with diversity. The ability to recognize inequity and bias.

Nurturing Relationships

The ability to establish and maintain healthy relationships. The ability to cooperate with others and navigate conflict constructively.

Purposeful Action

The ability to act in purposeful ways that serve others. The ability to promote the well-being of ourselves, others, and the planet.



Counselors Committed to Helping our Students

We have a team of school counselors in all three divisions who offer support to students as they grow and learn how to overcome new challenges and experience social, emotional, and physical changes.

In our High School, we have additional University & Careers Advisors (UCAs) who help prepare students for life after high school, in the realms of university, college, gap year, and career options.

Counselors and UCAs also support parents by holding regular workshops throughout the year that present helpful strategies for parenting and navigating the college admissions process.

Personal Support

Students can experience pressures, obstacles, and significant challenges during the school year. Counselors assist students in a variety of ways including providing emotional support, effective coping strategies, and helpful information.





Our Definition of Rigor

By redefining what challenge looks like in the school environment, we equip students to be productive, healthy, and fulfilled young adults, whatever future they choose.

Through our forward-thinking curriculum, our commitment to include student choice in our approach to learning and continual devotion to ensure an ISB education is cognitively complex, transferrable – both to other schools and cross-curricular, we have redefined rigor.

What once was known as exhaustive, demanding, and difficult is now defined as complex, inspiring, challenging, and rewarding. And because of this, learners at ISB are empowered with purpose and compassion.

“At ISB, we’re never asked to just write well or present well, we’re really tested to see if we understand what we’re saying and the reasoning behind why we chose what we chose. There is a layer of depth in our learning. When ISB students are put in a situation to speak on their learning, we’re able to do it in a mature way, we’re very well prepared for university.”

- Hiro W., ISB Alumni



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