



**International  
School of  
Billund**

The  
**what if**  
school



**The International School of Billund and our pedagogy of play**





***Tusind tak  
(a thousand  
thanks) to  
everyone who  
has contributed  
to our pedagogy  
of play, and by  
association, this  
booklet.***



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# What if there was a school centred around play?

**An idea** - Kjeld Kirk Kristiansen, owner of the LEGO Group, had an idea. Billund, his hometown in Denmark, needed an international school to serve the children of the many expats moving to the region. It would have a globally recognised curriculum to prepare learners to be engaged, contributing members of their communities. But what if it wasn't an ordinary school? What if it was a school that put learning through play ideas into action?

**ISB is born** - With that first *what if* question, the International School of Billund was born. We've been asking *what if* ever since.

## Children ask, *what if...*

- ... there was a GPS device that helped the blind find crosswalks?
- ... we could use pretend words to practise spelling?
- ... we made a kindergarten band without a boss?

## Teachers ask, *what if...*

- ... there were whole days where students could follow their passions?
- ... we had students decide how to practice skills?
- ... we had fewer rules on the playground?



## What if we developed a pedagogy of play to guide our answers to these questions?

In this booklet, we'll explain why we developed our pedagogy of play and what we mean by playful learning at ISB. We'll share some of the practices and teaching strategies that bring our playful pedagogy to life. There are also ideas about creating playful adult learning environments and how your school might start to ask *what if*.



***“At the heart means that you are really into it, and that represents the way our teachers are – all of our teachers love teaching.”***

**ISB student**



# About the International School of Billund

ISB opened its doors in August 2013 with just over 60 students in Kindergarten and Primary School. Today, we have about 400 students, ages 3-16, spread across Kindergarten, Primary, and Middle School. About one third of our students are Danish, with the rest representing 50 countries around the world.

ISB's playful curriculum is built upon the rigorous educational framework of the International Baccalaureate (IB). Providing students with a solid and transferable foundation of academic skills, the IB's focus on inquiry-driven and holistic learning is wonderfully aligned with ISB's playful ambitions. We are authorised as an IB World School for both the Primary and Middle Years Programmes.

**OUR MISSION:** By placing **PLAY** at the heart of education, ISB stimulates every child's natural desire to **LEARN**.

**OUR VISION:** To cultivate a community of lifelong learners who will create a better world with courage, compassion, and curiosity.

# Why a pedagogy of play

## Play is how we learn

Children learn through play when experiences are joyful, actively engaging, meaningful, socially interactive, and iterative\*. Through play, we try out ideas, test theories, explore social relations, take risks, and reimagine the world. In play, we ask *what if*. No wonder that play is part of our evolutionary heritage.

\* For information about these five characteristics of learning through play, see page 40.

## We play with a purpose

We are a school. While we are big supporters of unstructured, “free-play,” our pedagogy of play involves play with a purpose, bringing together our learning goals and our students’ natural ways of learning through play.

## We do this together

Playful learning is a team sport. Success depends on a trusting school culture where students and adults are supported in asking *what if* and testing the implications of their ideas.

## Play is a mindset

Putting play at the heart of education means far more than adding games to the curriculum, or having a well-stocked makerspace. It means supporting students to approach learning with a playful mindset. We aim to activate mindsets where learners and teachers frame and reframe school experiences as occasions to be curious, creative, imaginative, and to find joy in learning.





## It's complicated because of the paradoxes between play and school

Creating a school where play is a central part of learning is hard (and rewarding) work. Bringing play and school together is not easy because of the paradoxical relationship between the two.

### PLAY

Play is timeless; players lose themselves in play

Play can be chaotic, messy, and loud

Play involves risks

Play lets children take charge

### SCHOOLS

Schools have a timetable to provide predictability

Schools sometimes need to be quiet to help students focus

Schools aim to keep children safe

Schools have learning goals

All of these statements are true. So we set out to develop a pedagogy of play where together we could explore the *what if* space of learning and play — where these paradoxes between play and school go from “either/or” to “yes, and...” Where our students are able to lose themselves in learning **and** have timetables to provide predictability. Where their explorations can be a bit loud and messy **and** they can have the quiet needed to focus. Where they can explore **and** not get hurt. And, where they can develop agency **and** learn important mathematical, scientific, and artistic concepts.

# ISB Indicators of Playful Learning



# What we mean by playful learning at ISB: choice, wonder, and delight

## What are we aiming for?

Play. Playfulness. Learning. These words conjure up many images and associations. Wanting to create a school where learning through play is at the centre, we needed to be clear about what we meant by playful learning at ISB.

## Our indicators of playful learning

So we created our “indicators of playful learning.” We’ve identified three categories — **choice**, **wonder** and **delight** — that describe the nature of learners’ experience as they build understanding, knowledge, and skill through playful learning. Since play is subjective — what is play for one isn’t play for all — part of our model identifies the feelings learners have when learning through play. As there are observable behaviours associated with these feelings, we identified what playful learning looks like at ISB. Of course, not all these feelings and behaviours are happening all the time. But when choice, wonder, and delight are in play, playful learning is occurring. That is what we are aiming for.

# Practices that promote playful learning

A pedagogy of play involves bringing play and playfulness into many aspects of school life: teaching, learning, assessment, the classroom environment, and school culture. Here, we share five core practices that promote choice, wonder and delight.

- **Empower learners to lead their own learning**
- **Build a culture of collaborative learning**
- **Promote experimentation and risk-taking**
- **Encourage imaginative thinking**
- **Welcome all emotions generated through play**

On the following pages we describe each practice and suggest associated teaching strategies that support playful learning.

Some of these practices and strategies were developed at ISB. Others we learned about from other educators and adapted them to work for us. We encourage you to do the same, building on what you are already doing to create a culture of playful learning at your school.



**“I feel like at ISB people are pretty happy about school. And that’s a big part of ISB — being happy and just having a generally good time.”**

**ISB graduate**



# Empower learners to lead their own learning

Taking playful learning seriously means tipping the balance of responsibility for learning toward learners. Look for opportunities to turn things over to students and support them in this process. This requires flexibility and a willingness to modify teaching plans.

## **Get to know your learners**

Understanding the strengths, knowledge, and interests of your learners is a vital part of making learning relevant to their lives. To get to know your learners, observe their play, have informal conversations about their lives and passions, and connect with their families.

## **Co-construct rules**

Share power with children by co-constructing or reshaping classroom rules and norms. When students are included in creating classroom expectations, they experience agency, a sense of belonging, and an investment in the learning community.



## **Say yes to students' spontaneous ideas**

Playful learning involves being open to serendipity and surprise. When students make playful suggestions, consider whether the idea might actually enhance, or at least not distract from, the learning goals.

## **Reflect on learning with learners**

Take time to reflect on playful learning experiences with students. When learners better understand how they are learning, they become equipped to co-construct and/or lead the learning process.

**“These two weeks have surprised me a lot because I had some concerns, but they actually turned out to be minor. I have learned a lot about how I, and others, work.”**

Middle School student



## Involve learners in decision-making

Engaging learners in decisions about the curriculum, assessment, and classroom environment can activate feelings of wonder and delight. Invite students to participate in both large decisions (e.g. what topics to study, how to arrange classroom furniture and space) and small choices (where to sit, with whom to partner) about learning.

**To allow students greater choice, Middle School teachers replaced two weeks of the standard timetable with a ‘student-composed schedule’ (SCS), in which students were free to design their own school day.**

**While intrigued by the experiment, students identified potential challenges including stress, loneliness, distraction, and procrastination. In response to these concerns, the teachers allotted collective planning time for students so they could coordinate their schedules with peers.**

**They also provided a daily reflection time to check in with students. As the experiment progressed, students began to see each other as intellectual resources and took on more responsibility for their learning.**

**One group began to meet regularly outside the front office to work, while another group used tables and chairs to build a structure they called Versailles in which to study. As one student explained, the choice of where to sit helped her, “feel more calm...[and] focus more.”**

# Build a culture of collaborative learning

Feelings of playful learning are often activated and sustained by being part of a group. Playful learning is enhanced when players exchange, build on, or disagree with each other's ideas. Set up the conditions for collaborative learning so that students have opportunities to learn with and from each other.

## Use play to build relationships

Through play, children build the trust, empathy, and relationships that allow them to learn together. Deepen your own relationships with students by joining in their play.

## Facilitate purposeful conversations to build knowledge

In classrooms that operate as collaborative learning spaces, individuals work together to build knowledge as a group. Thinking routines and discussion protocols are helpful in providing the structure that promotes knowledge-building as a group.

*For information about thinking routines, see page 41.*

## Nurture a culture of feedback

Feedback from peers and adults can be invaluable to the learning process, yet giving and getting feedback can be scary. Build a classroom culture in which learners give and receive kind and specific feedback.



## **Foster peer-to-peer teaching**

Children can be effective teachers. Recognise that the adults are not the only teachers in the room and provide opportunities for children to learn from one another. Instead of providing answers, redirect questions back to learners so they can discuss and explore with each other.

We will look out so we don't crash !!



①

- You could say please move.
- Be more careful and say STOP.
- Move out the way.
- Go the other way



① Walk

② Crosswalk

③ You need to walk and moon car stop

We talked about what this means and what we can do, so body can stay safe! The children had lots of good for what the signs means and to do when you are on your big moon car.



① Go straight

② Follow the arrow

③ Make a stop before the roundabout

④ Make a stop



## Document learning through play

Making learning visible enhances a culture of collaboration. Document learning experiences through video, written notes, photographs, and samples of students' work. Revisit this documentation with the learners, other educators, and families to gain important insight about next steps for teaching and learning.

*For information about documentation, see page 41.*

On the playground kindergarteners were riding their trikes recklessly. There were numerous accidents and people were getting hurt. Teachers took photos of themselves role playing different playground situations and shared them with students to spark a discussion about how to make the playground safer. Using role play, drawings and LEGO Duplo, children came up with ideas for traffic signs and new safety rules. Documentation of this play became the basis for further discussion and a final, collaborative set of rules. Once implemented, the playground was a safer place.

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**“In the Kindergarten we’ve been thinking about how play can be used as a tool to give young children agency in the democratic process. They may not have the skills to verbalise their ideas, but when we document their play and use it as a springboard for further conversation, we are validating their position as citizens whose voices matter.”**

**Ruth, Kindergarten Coordinator**

# Promote experimentation and risk-taking

A playful classroom provides a safe space for learners to experiment with materials and ideas, as they take risks, try new things, and work through frustration.

Nurturing a culture of exploration helps children develop creative thinking skills and provides opportunities for them to see risk-taking and learning from failure as important parts of the learning process.

## Design open-ended investigations

Learning experiences with unknown outcomes (for learners and teachers) are invitations to discovery. Provide materials that inspire experimentation and pose questions that lead to sustained inquiry.

## Value risk-taking as a strategy for learning

Children learn when they try out new ideas, make mistakes and try again. Normalize risk-taking, mistakes, and failing forward as valuable aspects of learning by celebrating them and making them visible to the class.

## Focus on process as well as product

When engaging in experimentation and iteration, a focus on process as well as product allows students to demonstrate their understanding throughout a learning experience, not just at the end. Peer critique, process-folios, and performative assessments provide valuable feedback to shape teachers' and learners' next moves.





## Model risk-taking and experimentation

Many of the practices involved in playful teaching require some degree of risk-taking on the part of educators. Be transparent by showing students how and when you are taking risks and experimenting as a teacher.

At ISB we are fortunate to have a Creator Space that includes 3D printers, a laser cutter, and sewing machines. We noticed that children were constantly needing to wait for the “right” adult with the “right” skill-set in order to use these tools, and it was creating a bottleneck in the creative process. So we experimented by creating a licensing programme where children learn how to use the machines, pass a test, and are then able to run them without adult help. Stepping back in this way can be scary for teachers, but students, aware of the opportunity they’ve been given, have taken the privilege seriously, working with care and responsibility.

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**“I was in the first group to get licences for the laser cutter. Our teacher, Simone, is usually... well, when there’s a fire drill, she’s like ‘oh, it’s fine.’ But when she was getting us ready for the test she was really serious. I could tell it was a big leap for the teachers to let us use the machine.”**

**Primary School student**

# Encourage imaginative thinking

Engaging the imagination brings learners into the *what if* space of learning, where students explore, create, invent, generate new ideas, and take different perspectives. Learning can deepen when students move between different ways of expressing themselves.

## **Share stories to engage and enhance learning**

Telling stories and constructing narratives helps people connect to, understand, and explore ideas. Encourage learners, regardless of age, to listen to and tell stories as a way to explore content and share personal experiences.

## **Ask questions that invite curiosity**

Questions with multiple answers are invitations to play with ideas. For instance, rather than asking students to design a car, ask them to design a way to get from home to school. Such questions open up opportunities for further learning.

## **Provide materials that encourage hands-on learning**

Cardboard boxes, paint, rocks, and other found and natural materials engage the senses and offer learners the opportunity to create, explore, and imagine. Tinkering and maker-centred learning provide opportunities for exploring the properties of materials, problem solving, and messing around with ideas.





## **Use role play and pretend scenarios**

Role play allows learners of all ages to explore ideas and issues from different perspectives. Asking students to demonstrate what they know through role play and pretend scenarios can put them at ease and be a valuable assessment strategy.

Launching a unit on the moon, P4 teachers told their students to prepare for a trip. They enlisted parents, who signed “permission forms” and helped their children pack for a journey to the moon. Arriving at school, the children were led to a spaceship built by the school caretaker. Throughout the unit, the children continued their pretend journey on their own during breaks at school and at home, integrating what they were learning about space into their play.

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**“As soon as we mentioned a shrink ray – we had ALL the kids’ attention. Harnessing their imagination motivated them to learn as much as they could, as fast as they could.”**

**Jason, ISB teacher**

# Welcome all emotions generated through play

Learning through play can involve a range of emotions, including feelings of enjoyment, satisfaction, and ownership, as well as frustration and even anger. It is important to welcome and value all of these emotions.

## **Design for delight**

Often we find that lessons designed with choice and wonder in mind lead naturally to feelings of excitement, belonging and pride. Designing joyful lessons can be particularly helpful when skill-building and repetition are needed (e.g., spelling, multiplication tables, or practising an instrument).

## **Make learning meaningful and relevant**

Learning is engaging and meaningful when it connects to students' interests, lives, and important issues in the world. Making links between curriculum and community and between home and school life can create excitement, curiosity, and a sense of belonging.

## **Use play to explore complicated issues**

Using stories, hands-on materials, role-play, or pretense can provide a unique way to engage with sensitive topics (like racial inequity, war, or poverty) and navigate conflict and disagreement.





**“A little bit of frustration is motivating. Too much leads to disappointment.”**

**Middle School student**



## Support learners in working through frustration

Learning through play can involve failure, frustration, and difficult negotiation about ideas and materials. Learners need support and encouragement to work through big emotions. Teachers can model appropriate coping strategies by naming when they feel frustrated themselves.

**At ISB middle schoolers participate in FIRST LEGO League, a global competition that is part robotics and part product development.**

**In 2019, a team of five girls was struggling to come up with a product connected to sustainable urban development, the theme for that year. With only two weeks to go before the competition and still no viable product idea, frustrations were mounting.**

**“That’s when our teacher, Ole, said that maybe we should focus on a more local problem.”**

**That suggestion led the girls down an entirely new path: a product designed to help blind people identify and safely cross at crosswalks. The girls interviewed a representative from the Danish Society for the Blind, and a team member’s computer scientist parent, to come up with a GPS and beacon-based system; an idea that ended up winning them an innovation award.**

**Looking back, the girls agree that Ole gave exactly the right amount of direction — asking questions without providing answers, being available without hovering. The result was a product they could feel proud of, because it was theirs.**

# Nurturing a playful learning environment for adults

What if we started the day outside? What if we involved students in planning formative assessments? What if we supported middle schoolers in making their own time table?

A culture of playful learning for children requires a culture of playful learning for adults, where educators imagine, take risks, try out ideas, and tinker with their practice. With a playful approach to their practice, educators engage in responsible experimentation, asking *what if...* to solve problems and enhance children's learning.

So we intentionally strive to learn through play ourselves. We encourage each other to invent, create and try out new practices. We employ some of the same strategies we use with children — role play, asking questions that invite playful learning, and trying and trying again (with feedback) — to support our own learning. We make sure to play together to build trusting relationships.



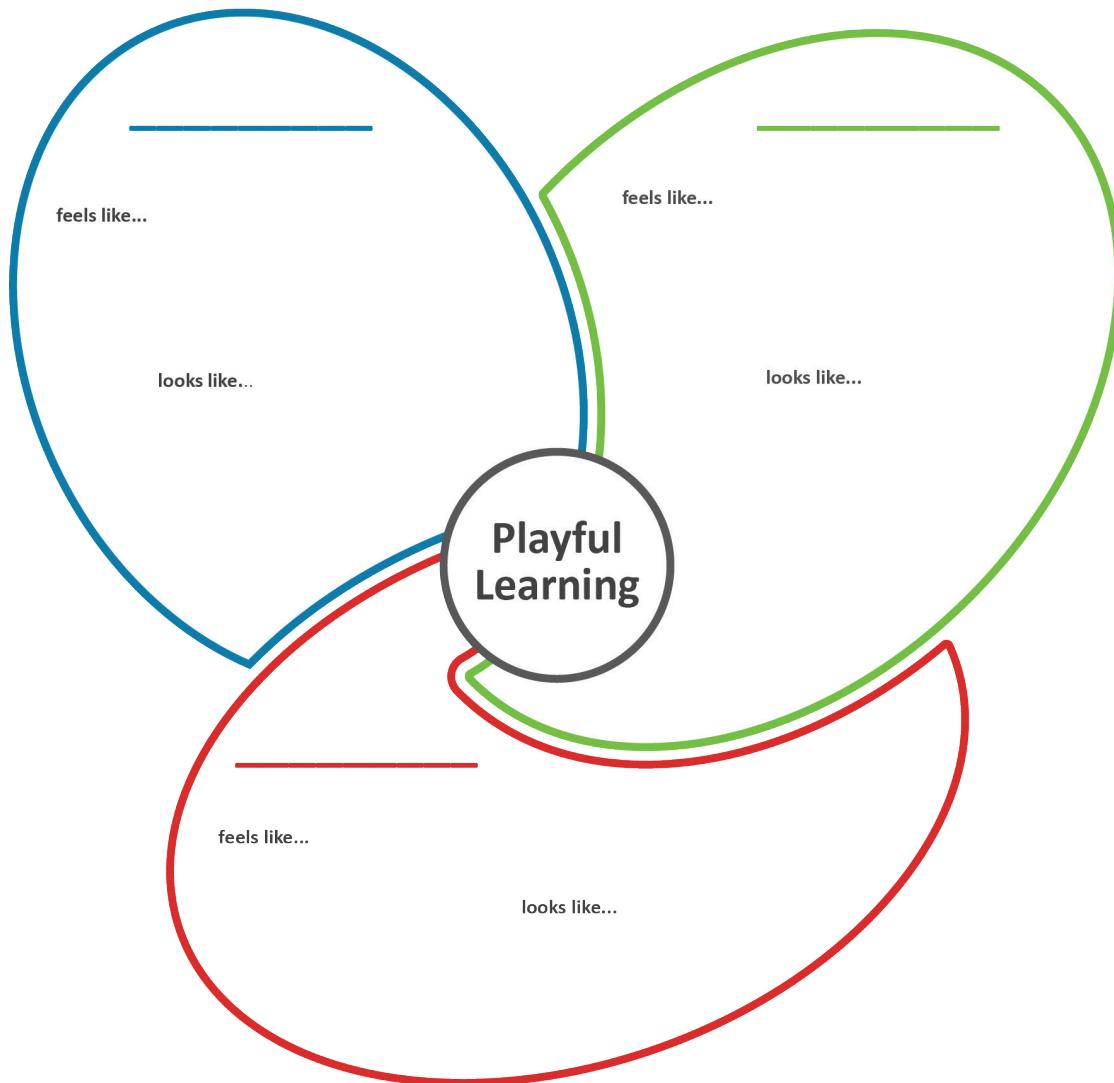
## Playful participatory research — our study groups

We also engage in playful participatory research, building our understandings of the practices described in this booklet. Each year teachers have the opportunity to join a study group in order to explore with colleagues individual and collective questions about learning through play. We have asked: How can playfulness be activated to enhance reflection? When should we say yes (or no) to children's playful requests? How can we make our learning environments more conducive to playful learning? Our inquiries take time, and we appreciate the opportunities to continue to learn together to build our pedagogy of play.

## Playing with families

Knowing families are an essential part of their children's education, we also engage families in playful learning during class open houses, Passion Days, student-led conferences, and celebrations of our study groups' learning.

# Indicators of Playful Learning



# How can my school ask *what if*

## **What are you aiming for?**

What are you trying to promote? What are your indicators of playful learning? Discuss these questions with colleagues. You might also observe teachers you know to be particularly playful. You can use the “*Indicators of Playful Learning*” tool to map out what learning through play looks and feels like at your school.

## **Play with your practice**

Ask *what if*. Pick a practice or teaching strategy described in this booklet and try it out. Document your experiment — take a video, make observational notes and/or collect student work — to help you reflect on the experience. Remember that what is playful for one learner isn’t necessarily playful for all, so strive to provide more than one way for students to learn playfully.

## **Playful teaching is a team sport**

Work with others as you ask *what if* and try and try again. Consider starting a study group. Even if you are alone in thinking about playful learning in your school, ask a colleague to help document and give you feedback about your experiments. Know the team can extend beyond your school, to educators around the world. Let us know what ideas and practices you are playing with and how it is going.

# Tools & resources

On our website you will find many more resources to deepen your understanding of a pedagogy of play.

[www.isbillund.com/pop](http://www.isbillund.com/pop)

**If you're looking for information about:**

## Our beliefs about play

Explore the **Principles** section where we share the core beliefs driving our work with PoP.



## Evidence in support of play

The LEGO Foundation draws upon extensive research to describe why play matters and how to foster learning through play. This work includes the **5 characteristics of playful experiences**.

To learn more visit [www.legofoundation.com/en/why-play/](http://www.legofoundation.com/en/why-play/)



## PoP Research

Look for research papers in the ***About*** section.

## Documentation

Check out the study group section of our ***Teacher Toolbox***.

## Ideas for your classroom

You'll find "Playful Classroom Management" and "Planning Playful Learning Environments" in the ***Teacher toolbox***.

## Examples from daily life

Read through some of our ***Pictures of Practice***.

## Thinking routines

Learn about "See, Think, Wonder" and other protocols developed by Project Zero in the ***Teacher Toolbox***.

# About the Pedagogy of Play project

Pedagogy of Play (PoP) is a research collaboration between the LEGO Foundation and Project Zero (PZ), a research organisation at the Harvard Graduate School of Education. The project launched here at ISB in 2015. The ideas in this booklet grew out of playful participatory research between ISB and PZ.

The development of our pedagogy of play is an ongoing process. For real time updates to our thinking, new developments in PoP research from around the world, and key ideas about learning through play visit:

## **International School of Billund**

[www.isbillund.com/pop](http://www.isbillund.com/pop)

## **Project Zero, Pedagogy of Play Project**

[www.pz.harvard.edu/projects/pedagogy-of-play](http://www.pz.harvard.edu/projects/pedagogy-of-play)

## **Pedagogy of Play Blog**

[www.popatplay.org](http://www.popatplay.org)



### The PoPulars



#### What if...

we tried to make TCS weeks even more positive  
for differently abled students?





pedagogy  
of play



**International School of Billund**

[www.isbillund.com/pop](http://www.isbillund.com/pop)

**Project Zero's Pedagogy of Play Project**

[www.pz.harvard.edu/projects/pedagogy-of-play](http://www.pz.harvard.edu/projects/pedagogy-of-play)

**LEGO Foundation**

[www.legofoundation.com](http://www.legofoundation.com)

