



Learning Through Play at School Ukraine, 2019–2024

Prepared by the **Australian Council for Educational Research (ACER)** and the **Ukrainian Educational Research Association (UERA)** for the **LEGO Foundation** and the **Ministry of Education and Science Ukraine**

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The **LEGO** Foundation 



Acknowledgements

Through play we make sense of our world, and in a world of chaos, play is therapeutic.

Children in Ukraine live with perpetual uncertainty and disruption. Play enabled them to process their experiences together. One teacher said:

“For a few minutes during the lesson, the children were constantly sharing their impressions of the noise [of sirens], the way they were running to escape...”

Playful learning environments that promote positive social interactions can provide opportunities to come together, relate to one another and our collective ordeal, and offer some levity, support, and understanding.

To the children who participated in this study - we honour you.

We were so fortunate to bear witness to your growth and development in your first years of school, your good humour, struggles, and great resilience.

We wish you long, happy, healthy and **playful** lives.

Слава Україні!



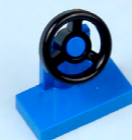
About the study

The Learning Through Play at School Research Study Ukraine was a four-year longitudinal intervention study funded by the LEGO Foundation and implemented by the Australian Council for Educational Research (ACER) and the Ukrainian Educational Research Association (UERA).

The intervention was a two-year professional learning program that blended online and face-to-face learning called the Teacher Innovative Play Program (TIPP). The TIPP was designed based on research that teachers need opportunities to experiment and reflect to change their practice.

The study was guided by three research questions which were revised to reflect the significant impact of the full-scale invasion of Ukraine by Russian armed forces on February 24, 2022. The revised questions were as follows:

1. What are the barriers and enablers that limit and/or support effective implementation of learning through play in intervention school classrooms?
2. How do teachers in intervention schools implement learning through play and adjust their classroom practices to promote children’s literacy and social and emotional development?
3. How do children’s literacy and social emotional skills compare between testing time points including prior to and during the invasion of Ukraine by Russian armed forces?



METHODOLOGY

In the original study design, intervention and control groups were selected from five regions in Ukraine including 20 primary schools, 60 teachers, and 1,465 children.

In the revised design, the intervention teacher sample remained the same, but the school and learner sample was reduced to seven schools and 296 children participating in the final assessment due to the war. Thirty intervention teachers participated in 20 interactive online modules where they gained foundational knowledge regarding learning through play and worked with experienced Pedagogy Partners (coaches) to enact and reflect on learning through play in their classrooms. The study investigated the impact of the TIPP on teachers by comparing the results of data gathered from interviews, classroom videos and planning and reflection documentation.

The study was initially designed to measure the impact of the intervention on children’s learning using the Learning through Play Literacy and Socio-emotional Skills Assessment (LTP-LSSA), designed to align with contemporary research regarding play and learning. The key skills assessed were expressive oral language, listening comprehension, empathy, self-awareness and self-regulation, problem solving and conflict resolution, using playful items scored live using a developmental rubric.

Impact of learning through play on teachers

The Teacher Innovative Play Program (TIPP) was a blended learning face-to-face and online professional learning program comprising individual coaching, self-paced online modules and webinars on the characteristics, outcomes, classroom practices, and measurement of learning through play at school.

At the end of the study, teachers demonstrated not only changes to practice, but also changes to their thoughts and feelings about learning through play. In the classroom, they created more opportunities for social interaction, autonomy, and agency; they were more flexible and responsive and more reflective than at the start of the intervention.

Depth of understanding

A new way of describing teachers progress on the journey toward understanding and facilitating learning through play emerged from this study. After the intervention, it became clear that some teachers had made some progress in their thinking, feeling, and practice, some had made substantial progress, and some had transformed their relationship with learning through play. These categories were described as **SURFACE**, **DEEP** and **TRANSFER**. This continuum presents learning as a process of acquiring foundational knowledge, deepening though practice, and at the highest level - transferring new knowledge to new contexts.

I haven't made the connection between learning and play

 **SURFACE**

Teachers at surface level added enjoyable games, videos, and hands on activities to their lessons. Games and activities often had a specific allocated time and a focus on accuracy and speed. These teachers described learning through play as fun and enjoyable for children, but hard to find time for in the day, as they had a lot of content to get through.

I now see the value of play for children's learning

 **DEEP**

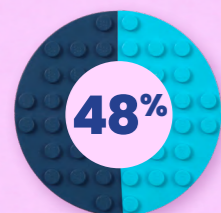
Teachers with deep understanding saw the bigger picture and understood the value of learning through play. They described the many learning outcomes of learning through play with examples and understood how learning through play enables children to support each other and find solutions together.

I see the value of play for my own learning

 **TRANSFER**

Teachers who had transferred their knowledge to new contexts had a whole new way of thinking about learning through play. They described a partnership between themselves and learners and how they were also learning through play. They solved problems together with children and understood children's capability as learners and also as teachers they and other students could learn from.

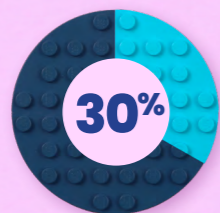
Changes to feelings



INCREASE IN MOTIVATION & CONFIDENCE

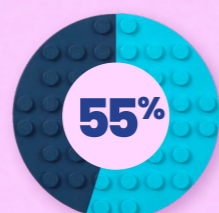
After intervention, 48% of teachers reported **increased motivation and confidence** about implementing learning through play.

After intervention, 30% of teachers reported a **decrease in fear and anxiety** about implementing learning through play.



DECREASE IN FEAR AND ANXIETY

Changes to thinking

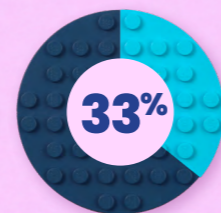


LEARNING THROUGH PLAY IS EFFECTIVE

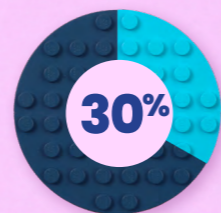
About learning through play as a pedagogy: Most teachers (55%) reported seeing learning through play differently, as an effective way to foster a range of skills.

About children: Many teachers (33%) saw children as more capable than they previously thought.

About teaching: Many teachers (30%) developed a new vision for themselves as partners in and facilitators of learning.

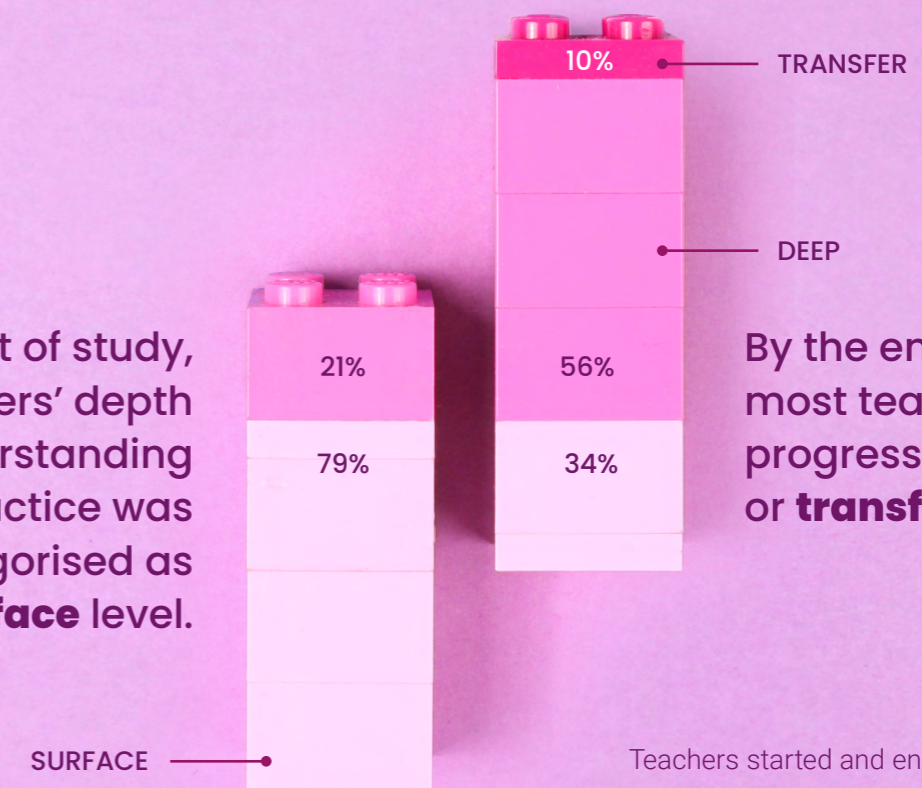


CHILDREN SEEN AS MORE CAPABLE



DEVELOPED NEW VISION AS PARTNERS

At the start of study, most teachers' depth of understanding and practice was categorised as **surface level**.



By the end of study, most teachers had progressed to **deep or transfer level**.

Teachers started and ended at different levels. This illustrates the importance of developing targeted learning programs rather than a 'one size fits all' approach.

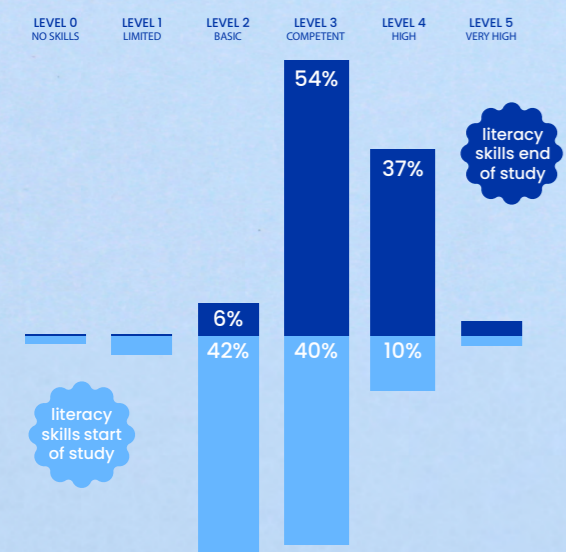
Impact of learning through play on children

A playful intervention requires a playful assessment.

For this reason, we developed a child-friendly and engaging measure of children's receptive and expressive oral language and social-emotional skills including empathy, conflict resolution, problem solving and self-regulation. The assessment included colourful characters, scenarios for problem solving, and questions about emotions. Learners were asked about their enjoyment of the assessment and 99% responded that they enjoyed it, including 64% who responded that they enjoyed it very much.

Literacy

Literacy results at the end of the study showed that in general, all children grew. The most substantial changes were the increase in the number of children demonstrating high-level literacy skills, and the reduction of learners demonstrating basic literacy skills.



Most learners literacy skills grew from **basic/competent** to **competent/high level** by the end of the study.

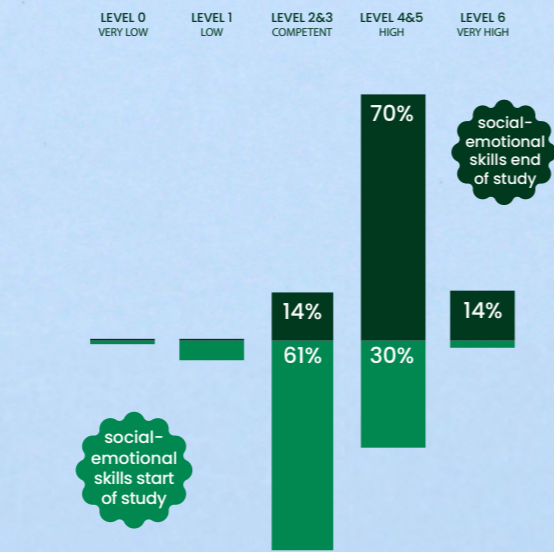
Students with high and very high literacy skills could answer all questions about a text read to them, imaginatively generate descriptions of characters, imply ideas beyond the images, and give 3 synonyms for a familiar adjective.

Students with competent literacy skills could answer most questions about a text read to them, link features when describing characters and give 1-2 synonyms for a familiar adjective.

Students with basic literacy skills could communicate effectively and understand short texts with teacher support.

Social emotional skills

Social-emotional results at the end of the study showed in general all learners grew. The biggest change was the increased number of learners' demonstrating 'high' social-emotional skills, and large reduction of learners demonstrating 'competent' social-emotional skills.



Most learners social-emotional skills grew from **competent** to **high/very high** by the end of the study.



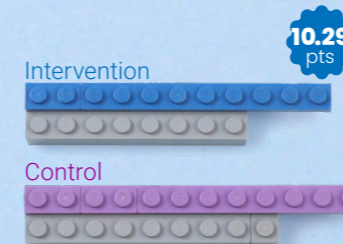
Students with high and very high social-emotional skills could propose collaborative solutions to problems, understand ineffective conflict resolution strategies, and show insight and empathy when evaluating a character's behaviour.

Competent social-emotional skills were described as evaluating a character's response to a conflict scenario from one perspective only or proposing a resolution to conflict via an external solution.

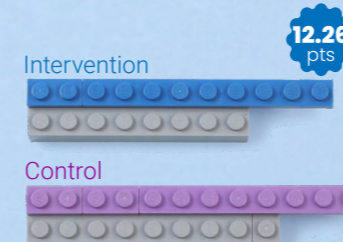
Students with limited social and emotional skills demonstrated self-awareness, but no self-regulation strategies or actions to demonstrate empathy or solve conflicts.

Comparing control and intervention school learners

Learners from control schools started ahead of intervention school students and at the end of the study achieved a higher level of performance in both literacy and social-emotional skills. However, intervention school learners grew more in literacy and social-emotional skills from the start to the end of the study.



Control school learners outperformed intervention in **literacy** at end of study, but **intervention school learners grew more** (10.29 points)



Control school learners outperformed intervention in **social-emotional skills** at end of study, but **intervention school learners grew more** (12.26 points)

There were far more high SES learners in the control school sample compared with the intervention group. In addition, as we do not know how the full-scale invasion impacted the specific learners and families sampled, these results should be interpreted with caution.

Other sources of evidence

Teachers provided valuable evidence about learners' growth and development. They described learners' developing skills in self-management, social awareness, relationship skills, creative thinking, collaboration, communication, and problem solving.



Voices of teachers

"They learn to control their emotions, for example I had a boy in my class who moved from the Donetsk region and had big problems with his behaviour....it was impossible [for him] to attend classes. Little by little, through conversations, games, work in pairs and teams, he learned and calmed down, realised what he could do and what he could not do...He found the mistakes himself and corrected them, even when he did something wrong, he came and apologised."

"I often hear that in high school, children have a big problem with working in groups and they refuse: no, I won't do it. I can already see the advantages of our study. When there is an air raid, we go down to the shelter, we have tables there and have to work in groups. They just sit down without looking up, I give them a task and they work with whomever they sit down with. There are no problems now. They always try to help each other, even when they don't need to. They have developed such a team skill of social interaction. I say, 'can I help?', and they say...'No, you don't need to.'"

Challenges and enablers

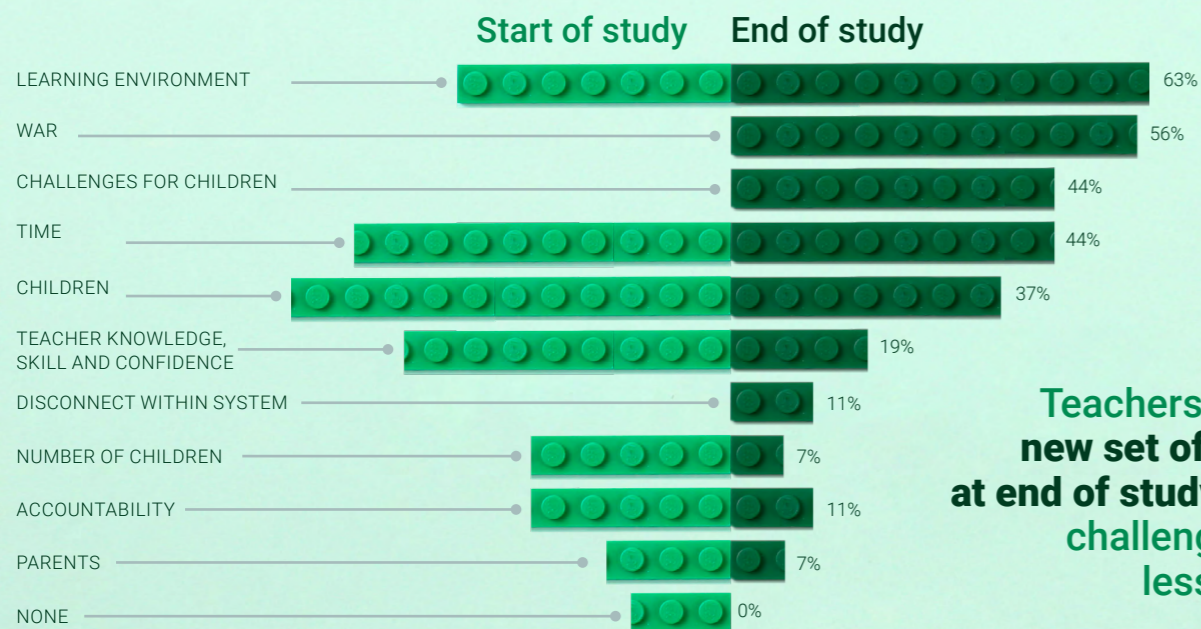
Teachers were asked about what hindered or helped them to implement learning through play at school. Understanding these factors is crucial for all stakeholders to support teachers to remove barriers and strengthen enablers to sustain meaningful changes to practice and replicate or extend successes. Our study revealed that challenges and enablers changed over time and were experienced at the personal, classroom, school, system, and country level.

Challenges

School-ready children vs child-ready schools:

The challenges and enablers identified by teachers at the start of the study were vastly different to those described at the end. At the start, the most common barrier identified by teachers was children themselves - their low levels of social development, inadequate preparation for school, and lack of self-regulation.

This suggests that at the start of the study prior to the intervention teachers viewed learning and play as disconnected and sequential; first children learn the rules of school and then they can play. In contrast, after the intervention teachers held vastly different views of the challenges of learning through play at school. There were far fewer teachers citing children as a challenge; instead, a new challenge emerged - challenges for children. Teachers described the challenges children faced when learning through play at school, for example developing social skills, emotional regulation, confidence, and could now see how play had helped children to develop these skills. This was an important shift – from seeing children as a challenge that prevented learning through play to seeing learning through play as the answer to support children to take on challenges and develop important skills.



Teachers identified a new set of challenges at end of study, and initial challenges became less important.



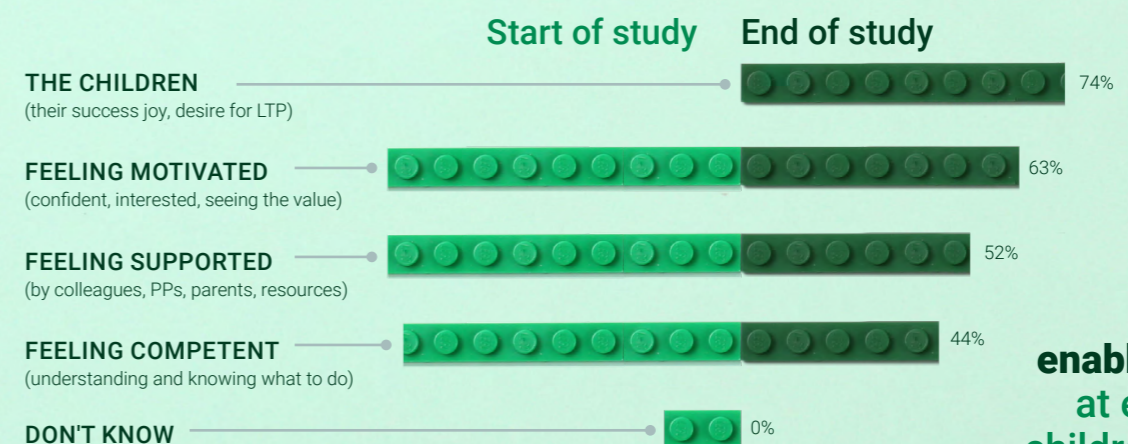
Voices of teachers

"In our classes, children have learnt to express their own thoughts, comment, listen to others, and collaborate on a project or a problem. When we held an event dedicated to safety, representatives of international organisations came to our school and said: "We have never met children like these! We have held events in all primary schools."...That is, [the children] answered open-ended questions without hesitation, [presented] evidence, and formed a conclusion."

From the beginning of the study, the operating environment was complex, precarious, and ever changing, due to the pandemic which began six months after the study commenced, and the full-scale invasion of Ukraine two years later. An online questionnaire completed by all school principals revealed substantial disruption and damage to certain schools and infrastructure caused by the invasion. However, there was no distinct pattern of responses that suggested that intervention or control schools were much more impacted than the other.

Enablers

Children's success is the greatest motivator. After the intervention, teachers described different enablers to implementing learning through play in the classroom. At the start of the study, teachers identified feeling motivated, competent, and supported as key enablers. After the intervention, the most common enabler reported by teachers was the children themselves - watching them grow, develop, and gain confidence as learners. This result aligns with research about supporting teachers to make lasting changes to practice. When teachers experience success and see positive benefits for learners, they are more able to sustain motivation to implement learning through play over time.



The greatest enablers for teachers at end of study was children's success, joy and desire for LTP.

Conclusions

Good practice in learning through play

This study has generated practical guidance for teachers to identify where they are positioned on a continuum of depth of understanding of learning through play, from surface to deep. In doing so, we can better understand what good practice looks like and how it develops over time.

Impactful professional learning

This study showed it was possible to support teachers to make positive changes to their practice which in turn positively impacted learners. Features of the successful program included one-to-one coaching, providing time and opportunities to apply new learning, embedding opportunities for shared reflection, and creating social support networks.

Growth is possible in times of extreme challenge

The substantial growth of almost all learners in literacy and social-emotional skills from Grade 1 to 3 is a positive result from a unique dataset. While the context is specific and sample is small, there is potentially a finding here about how playful learning designed to foster positive relationships and experiences may have been a protective factor supporting children to continue to grow.

Learning through play in key transitions

Many teachers made the fundamental shift from viewing children as a problem to learning through play as the solution. Initially, teachers viewed children as unprepared for play and lacking key skills. At the end of the study, teachers viewed learning through play as the vehicle for developing these skills. This shift can be characterised as moving from a focus on school-ready children to child-ready schools.

Learning through play requires playful measures

We developed a reliable - and playful - instrument to measure children's literacy and social-emotional skills appropriate the target group with sufficient room for growth. The assessment results were supported by other valuable sources of data enabling us to triangulate findings and understanding the 'how' and 'why' in addition to 'what'. This underlined the importance of using diverse methods to answer complex questions about learning through play.

Evidence relevant to the New Ukrainian School (NUS) reform

The Ministry of Education and Science of Ukraine may find results presented here useful and relevant regarding their pivot to focusing on developing competencies over learning content, and particularly social-emotional skills. Other important lessons include the key features of impactful professional learning, extending the NUS to the middle years, and learning and development during times of extreme challenge.

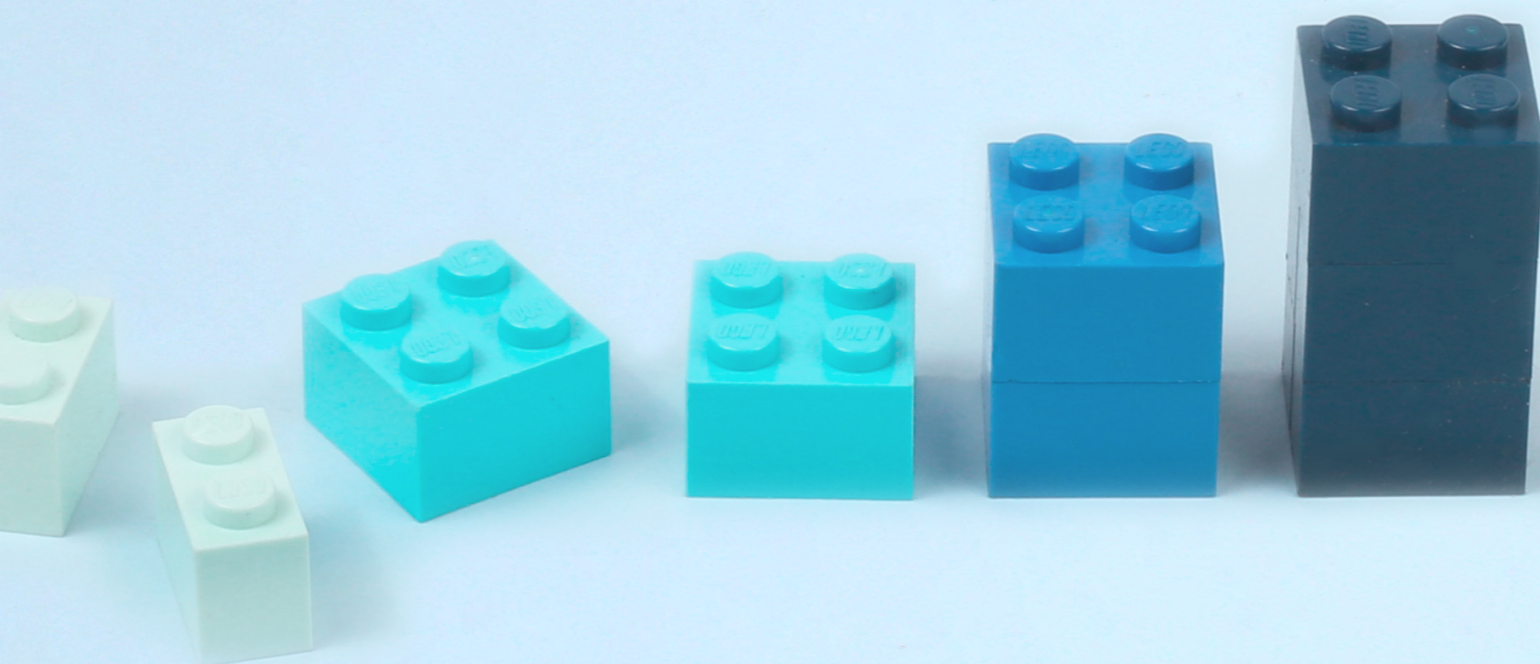


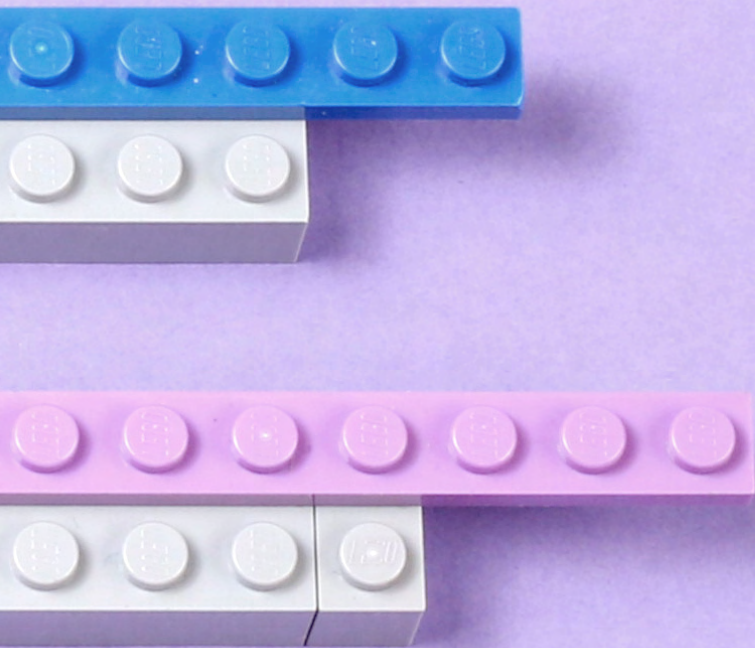
Voices of teachers

"[Challenge] is a tool to prepare children for the future, they will become people in society, and I am a teacher who knows how to teach children. The challenges change every year. They need to know how to change and how to deal with these changes. I have to prepare them emotionally and socially...I can pass on this ability to be confident to children. For me it's about success, showing my skills and not being afraid, pushing for new things, opening up new opportunities, future success and growth as a teacher."

Voices of school principals

"Irpin and Bucha were under constant fire from the first days of the full-scale invasion. People left their homes taking only documents with them. All things, including computer equipment, remained either at home or at work. This was a huge challenge to start online learning. Being in other cities of Ukraine and even crossing the border, teachers had to look for ways to conduct lessons, ask for help in providing good people with computers and the Internet. But despite all the difficulties, in less than four weeks we started teaching our children online."





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