

Building new skills is simple with the Brick-by-Brick® programme

Matt Mikesell and Deanna Amenta are teachers at Mellon Middle School, one of 10 schools in the Mount Lebanon School District in Pittsburgh, United States of America. With a student body of 700 students, aged 11 – 14 years old, the school aims to support students with their physical, emotional, intellectual, social and moral growth through a rich and varied curriculum.

Following the COVID-19 pandemic, the school noticed that many of its students needed additional support with developing their communication and interpersonal relationships in addition to skills such as conflict resolution.

Mellon Middle School was approached by Carnegie Mellon University, a training partner of Play Included*, to complete Play Included's Brick-by-Brick* programme training and pilot the methodology. The programme draws on the latest research on learning through play and neurodiversity to enable education professionals to help students build friendships, improve their social and emotional wellbeing, and develop their social skills.

Learning through play

The Brick-by-Brick® programme's emphasis on learning through play and child agency drew Matt Mikesell and his fellow teacher, Deanna Amenta, to the programme. As a former child development specialist, Amenta explains she:

"always knew that play was important to children's learning and, even as an adult learner, it is the best way to learn."

Following their training in 2023, they launched weekly sessions of the Brick-by-Brick* programme for 18

male and female students in grades six to eight. During the 12 weeks that the students took part in the Brick-by-Brick® programme, Mikesell and Amenta note that they saw them developing friendships alongside important skills such as problem-solving, creativity and collaboration.

The school is a partner of Matt's Maker Space, and has its own Maker Space, which is where the weekly Brick-by-Brick* programme sessions are held. By reaching out to its partners in the education sector, and parents via local Facebook groups, the school was able to source donations of LEGO* bricks for its students to play with. These are stored onsite and existing models are displayed around the school to both showcase students' creativity and inspire other students.



Amenta notes that "while children can often struggle to communicate effectively, this was compounded by the seclusion of the pandemic. Being isolated negatively impacted the development of children's communication skills."

Building together with LEGO® bricks was a catalyst for the children to practise communicating effectively with each other. Amenta shares that:

"we described to them [the students] what the Brick-by-Brick® programme was and discussed our expectations for the weekly sessions. After two sessions, we saw an increase in the children sharing information, talking about the build and having conversations about their experiences."





Students who take part corroborate this, commenting that during the sessions "people open up more", "we get to talk with different people" and they "learnt about communication and teamwork."

Mikesell also shares that "conflict resolution is a lost art" following the pandemic. "Many of our students initially preferred to work alone but by the third or fourth session of the Brick-by-Brick® programme, we see students feeling more comfortable with sharing their suggestions for resolving the challenges that arise during a build. This was particularly evident during the free build sessions towards the end of the 12 weeks."

In just three weeks, both teachers saw a positive difference in students' collaboration, teamwork and leadership. Another student who takes part in the Brick-by-Brick® programme comments on how "fun it is to learn how to work as a team while getting better at communicating" during the weekly sessions while another student highlights "it [the Brick-by-Brick® programme] helps us learn to work in a group as we bond over LEGO® bricks while also getting better at communicating".

Adult facilitation is fundamental to the Brick-by-Brick® programme and facilitating opportunities for their students to develop self-agency and lead their learning is important to both Amenta and Mikesell. By stepping back, and allowing the students to find their own methods of collaboration and communication, both

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teachers observed students become leaders, find their voices, and encourage their peers. "One of the students previously struggled with relinquishing control but is now able to effectively collaborate with the other students in the group as he understands why there are different roles [Supplier, Builder and Engineer]. Now, we see him guiding his group and encouraging others to try the roles."

Creativity is another skill nurtured through the Brick-by-Brick® programme and students at Mellon Middle School were able to apply their strengthened skills in communication and teamwork to agree on a free-build theme after six weeks of working together. "Our students conceived the idea of an aquarium and we were impressed with how thoughtful they were in their aquarium creations, many of which are now on display in the school", enthuses Amenta.

Fun and friendships

While Mellon Middle School emphasises the development of skills, it also focuses on developing students' self-esteem and interpersonal relationships. Both Amenta and Mikesell highlight how the Brick-by-Brick® programme provides a safe space for students to develop a sense of community and build friendships. Mikesell explains: "the programme levels the playing field for everybody by providing a common ground. While our students may not have defined social groups, they have found friends through the

Brick-by-Brick programme."

"Our Brick-by-Brick" programme sessions are attended by a mix of students, some of whom have additional needs such as Tourettes" explains Amenta, "however, all of the children feel comfortable to be themselves." Mikesell continues:

"Our classrooms are already inclusive but playing with their peers, who are all different, and learning about different perspectives strengthens the inclusivity and acceptance that is already present in the school. We encourage the children to show their builds to their peers while they are working and you hear so much positive feedback."

Building on success

Following a successful pilot of the Brick-by-Brick® programme, and the enthusiastic response of participants and their families, Mikesell and Amenta plan to continue to host weekly sessions for students during term time. They are expanding the number of places available for students and are exploring ways to incorporate the principles of the Brick-by-Brick programme into students' daily lives. Mikesell shares that the Brick-by-Brick programme "has made such a difference in what we do in our classroom. We are excited to continue to give children the opportunity to learn through LEGO play."

The Brick-by-Brick® programme training pathway is now available in the United States of America. Enquire about training by emailing bookings@playincluded.com.

