A Day at Sharing School: An Interdisciplinary Approach to Learning

Can you think of a biology assessment that is also graded by a visual art, drama, music, or design teacher? Or what if you had to complete a science experiment that a teacher of art would also grade?

In the Middle Years Programme (MYP), students are encouraged to engage in interdisciplinary learning as one of the key elements of the curriculum framework. An interdisciplinary understanding enables students to combine learning from multiple disciplines to come up with new ways to think about issues and solve problems. They can use this knowledge to explain phenomena, solve problems, develop products, or raise new questions that are impossible to explain using one single field.

Here at my school, International Sharing School (ISS), in Portugal, learning through sharing is at the heart of the school's innovative infrastructure and the school's mission, which is '*learning from sharing'*. One of the main tenets of the school is to share knowledge across disciplines and place the student at the center of the learning process, thereby creating student autonomy, encouraging social responsibility, and facilitating a smoother transition to higher education or the world of work. The school's interdisciplinary learning framework, therefore, encourages deep thinking, creates opportunities for flexibility, and encourages students to make authentic connections to the global community.

For example, recently our MYP 4 students organized an immersive performance as a part of their Interdisciplinary unit (IDU), Microscopic Perspectives. For this unit, our students synthesized concepts from Cell biology (Biology), photography skills (Visual Arts), soundscape techniques (Music), creating tableau imagery (Drama), and scenic design and systems (Design) which resulted in the creation of an immersive performance as part of their final product for this unit. This performance was a fun-filled learning experience for our students to learn the relevant academic content by combining different perspectives and also to hone their research, communication, and critical thinking skills!

Having planned the unit collaboratively, all subject teachers taught the unit from their own disciplinary perspectives and were able to build and integrate lessons on knowledge and understanding gained from the biology content, which was studying the cell structures and the relationships between the cell organelles. For visual arts, students studied the basics of photography, analyzed the cells through a microscope, and then expressed the relationships between the cell organelles in an artistic way through their artwork. Similarly, the music students studied how the cell walls and cell organelles created vibrations and used the sound-scaping techniques studied in the class to create the cell soundscapes.

In their drama classes, students studied creating tableau imagery, which helped them represent themselves as the nucleus, mitochondria, cytoplasm, etc. Next, through a shadow performance using the tableau created, they expressed the relationships between all the cell organelles. Meanwhile, all this information provided a lot of primary data for the design students to use in designing the set for this performance. This included getting the stage ready for the shadow performance, figuring out seating layouts, projecting the artwork created by the visual arts students, organizing the music system, and finally designing the tickets and posters for the invitation to this performance.

Finally, the purpose and effect of the tableaux, together with the cell soundscapes, visual artworks, shadow reflections, and stage design, created a simulated immersive inside-the-cell experience for all the students!

In my perspective, the key element to making this a successful interdisciplinary learning experience was to have students work on a real-life performance or project-based learning, which gave them an opportunity to perform on a real stage, control and organize the music and lights systems, advertise about the performance and manage the entire project by collaborating with different departments. This real-life experience developed their social, communication, and thinking skills, which shall remain with them lifelong and with others who experienced learning cells through a creative perspective.

Lastly, after the performance, all the students reflected on making connections between the subject groups and analyzed how all subjects contributed to the interdisciplinary nature of the unit. For example, one student reflected that “this performance helped me understand cell biology from a completely different perspective that I was not aware of." Another said that “working on this project was like working as a project manager or stage designer in some company and to be able to test my design ideas in reality”

Finally, this IDU showed how interdisciplinary learning can bring value to students' learning and create opportunities and an environment for students to inquire and contribute their voices to how to problem solve and ensure the future of humanity. It allowed students to make explicit connections with the community around them, which was evident in the creation of this artistic performance.