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INSPIRING CURIOSITY THROUGH ANATOMY









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PUPILS from Sekolah Kebangsaan (2) Sultan Alam Shah work together to identify and assemble human bones during the *Bone Assemble* activity.

ANATOMY EXPLORER: BRINGING ANATOMY BEYOND THE MEDICAL CLASSROOM

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The Anatomy Explorer programme, organised by the Department of Anatomy transforms conventional laboratory visits into interactive learning experiences. Three institutions that participated were IJN University College, Kolej Universiti Antarabangsa MAIWP (UniMAIWP), and Sekolah Kebangsaan (2) Sultan Alam Shah students. The latter included five deaf pupils, with facilitation from their teacher.

Each visit began with a briefing on laboratory ethics, safety and respect for human specimens. The guided tour was tailored to the participants' educational levels. Adult participants visited the specimen storage area and histological slide preparation laboratory, while the school pupils' visit focused on age-appropriate activities in the Anatomy Demonstration Hall.

A major highlight was the series of interactive anatomy activities. During Mystery Jar for the adult participants,

PARTICIPANTS and teachers from Sekolah Kebangsaan (2) Sultan Alam Shah pose for a group photograph in the Anatomy Dissection Hall following the Anatomy Explorer activities.



preserved organs were displayed in jars together with accompanying anatomical facts. Participants examined the specimens and read the information beside each jar, helping them connect visible anatomical features with each organ's structure and function.

In Bone Assemble, participants worked together to reconstruct a human skeleton and identify its major bones. Body Puzzle required them to position organ models correctly within the thoracic and abdominal cavities. Collectively, these activities promoted observation, communication, teamwork and problem-solving. Active learning has been associated with better academic performance, while varied teaching methods improve engagement in anatomy education[1,2].

Programme effectiveness was evaluated using pre- and post-tests. Among the SK (2) Sultan Alam Shah pupils, the mean score increased from 68.3% to 80.8%. Pupils' feedback was highly positive: 94.4% agreed their knowledge increased, and 88.9% reported greater interest



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in science. Most pupils enjoyed the programme (97.2%), and 94.4% said they would participate again. Furthermore, 88.9% would encourage their friends to join a similar programme. These findings indicate that the programme not only improved anatomical knowledge but also created an enjoyable learning experience.

Among the participants from IJN University College, the mean score increased modestly from 83.3% to 85.8%. The difference was not significant, possibly because of their high baseline knowledge. The largest improvement was observed among the UniMAIWP participants, with their mean score increasing



PARTICIPANTS from IJN University College observe cadavers preserved in storage tanks during their guided visit to the Anatomy Laboratory.

from 46.0% to 83.7%. This finding suggests that direct observation and interactive activities were particularly valuable for learners with lower baseline knowledge.

Adult participants also provided highly positive feedback. At IJN University College, 96.3% positively rated the programme as interactive, important, knowledge-enhancing, and capable of increasing interest in anatomy. Among UniMAIWP participants, 92.9% rated its interactive nature positively, while 97.6% agreed it was important, increased their knowledge, and strengthened their interest in anatomy. Furthermore, 95.2% felt the activities facilitated applying anatomical knowledge in daily life.

Anatomy education strengthens health literacy by helping individuals understand bodily functions, disease and preventive health information[3]. The participation of deaf pupils also showed that visual, tactile and hands-on approaches can support inclusive education when communication barriers are appropriately addressed[4,5].

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UNIMAIWP students learn about the preparation of specialised jars used to preserve and display anatomical specimens.





A deaf pupil from Sekolah Kebangsaan (2) Sultan Alam Shah participates in an anatomy activity with guidance and sign-language support from his teacher.



UNIMAIWP students engage in the *Mystery Jar* activity by examining preserved specimens and reading the accompanying anatomical information.



References:

1. Estai, M., & Bunt, S. (2016). Best teaching practices in anatomy education: A critical review. *Annals of Anatomy*, 208, 151-157. https://doi.org/10.1016/j.aanat.2016.02.010

2. Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410-8415. https://doi.org/10.1073/pnas.1319030111

3. Handayani, S., Arjadi, F., Illiandri, O., Handayani, E. S., Woon, C. K., Mukhtar, S. F., Rushaidhi, M., & Hadie, S. N. H. (2025). Anatomy for all: Engaging communities in Indonesia and Malaysia. Education in Medicine Journal, 17(1), 167-183. https://doi.org/10.21315/eimj2025.17.1.12

4. UNESCO. (2020). Global education monitoring report 2020: *Inclusion and education—All means all*. https://doi.org/10.54676/JJNK6989

5. Hayes AM, Bulat J. Disabilities Inclusive Education Systems and Policies Guide for Low- and Middle-Income Countries [Internet]. Research Triangle Park (NC): RTI Press; 2017 Jul. Available from: https://www.ncbi.nlm.nih.gov/books/NBK554622/ doi: 10.3768/rtipress.2017.op.0043.1707