

Editorial:

Students' Elective in Undergraduate Medical Education and Reflective Writing as Method of Assessment

Salam A¹, Zainol J²

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In modern medical education, there is growing importance to include the elective program in the undergraduate medical curriculum¹. Electives are the curricular contents that students choose freely as apart of their training². These courses are designed to prepare the students for their future careers by increasing professional opportunities³. Elective courses allow students to have varied learning experiences outside the fixed curriculum. It permits inter-professional education, enhances students' interest and motivation in the program as they can choose according to their choice, feel more responsible and build personal skills. Also, electives complement the core curriculum as students can select according to their interests and need^{1,2}. This paper briefly describes the kind of activities offered for students' electives, how to plan and implement them successfully and how to assess, especially by reflective writing skills, as method of assessment aimed at conducting a sustainable, effective elective program in undergraduate medical education.

The kinds of educational activity offered for electives range from meeting individual educational needs to the exploration of likely career pathways, with many factors influencing choice⁴. In the United States, electives range from courses like ethics, leadership, health policy, and foreign language to speciality-specific electives⁵. Short elective courses generally cover the fields of education, research, community postings, or

other speciality-specific courses like laboratory electives, palliative care, neurology, emergency medicine, surgery, radiology, primary care, etc.^{3,5}.

In designing an elective, based on situation analysis and considering the available resources, the organizer should clearly spell out the specific learning outcomes of the electives. Students should have a clear understanding of the name of coordinating faculty, supervising faculty, mentoring faculty, details of students allowed to join the course, the duration of course, time tabling of the sessions, assessment procedures, resource materials or support services available and prerequisites for joining the elective^{3,6,7}. The time assigned for electives should not be utilized to cover any shortage in their other courses³. All students should know about the content areas covered, including those which might require partnership from neighbouring or international institutions or agencies^{3,4,6,8,9}. Practicalities such as travel, accommodation, as well as risk management of the student and their elective supervisors also need to be addressed where necessary⁴. The elective course lays down the foundation for the students to become self-directed learners, as these courses are opted by the students on their own^{3,4}.

Assessment method

Teaching and assessment are the two sides of the same coin¹⁰. Students' electives need to be assessed toward the end of the course aimed to judge

1. Abdus Salam, Medical Education Unit and Community Medicine Unit, Faculty of Medicine, Widad University College, Kuantan, Malaysia.
2. Jamaludin Zainol, Surgery Unit and Dean Faculty of Medicine, and Deputy Vice-Chancellor (Academic and Internationalisation), Widad University College, Malaysia.

Correspondence to: Dr Abdus Salam, Associate Professor and Head of Medical Education Unit and Community Medicine Unit, Faculty of Medicine, Widad University College, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia. Email: abdussalam.dr@gmail.com
ORCID iD: <https://orcid.org/0000-0003-0266-9747>

whether they have met their intended learning outcomes. Assessment of elective can be done either by measuring the percentage of attendance or completion of a logbook or the submission of a project work or evidence for learning or any assignment -namely presentation in a seminar or in a conference, or recording the reflections on learning^{3,4,9}. The reflections on learning or reflective writing make the learning deeper and predicts critical thinking³.

Reflective writing

Reflective writing is considered an essential component for the assessment of elective courses in modern medical education¹¹ as reflection promotes critical thinking of the students. There are various formats or tools for writing reflection. One such format comprised of three parts: (1) descriptive reflection, (2) dialogic/analytic reflection and (3) critical reflection. Descriptive reflection is characterized by a description of actions or events. Dialogic/analytic reflection demonstrates a “stepping back” from the actions or events, leading to discourse with self and exploring the possible alternative and possible hypothesis. Critical reflection demonstrates the analysis of actions or events as well as explores the various perspectives about the events influenced by various socio-political and historical contexts¹¹. Another format of reflective writing comprised of six parts¹², which are writing of: (1) description of the event about what happened, (2) feelings about the event, (3) evaluation, -what was good and bad about the event/experience (4) analysis of what sense make about the event /situation (5) conclusion drawn in general and specifically, (6) action plan about what will be done if it rose again in future.¹² Another format is the 4Rs model of reflective writing skills¹³, which are: (1) reporting and responding, (2) relating, (3) reasoning, and (4) reconstructing¹³. The organiser needs to decide on one format.

Implementation of Elective

The key areas for sustaining a successful implementation of an elective program, the organiser should ensure that the following things have been considered before during and after elective placement^{4,14}.

Before elective

Choose personal learning outcomes

Before going to elective placement, students need to set their own personal learning outcomes, which

will be included in their elective plan. Learning outcomes should be SMART, an acronym of S=Specific, M=Measurable, A=Attainable, R=Relevant and T=Timely. An example of a SMART personal learning outcome is: “While on my elective placement, I will participate in the postpartum nursing care of a mother who has given birth naturally and a mother who has had a caesarean, in order to better understand their contrasting needs¹⁴.”

Choose group learning outcomes

If students work with a group, they need to select group learning outcomes together, which are related to cultural competency. This will empower them to expand their cultural competencies, such as supporting one another as peers, developing group management, teamwork and public speaking skills etc.

Choose an elective placement that is best suited to achieve learning outcomes

When choosing an elective placement, students need to think judiciously about what type of placement would best suit the learning outcomes that they have set. Learning outcomes should dictate where they choose to go for their elective placement. Students need to decide how to organise and prepare for their elective placement, how to achieve their learning outcomes, how their outcomes will be assessed, and what support services available.

During elective

While on placement, students must need to create and collect evidence of their activities to show how they meet their learning outcomes. The evidences may be: (i) written reflections (ii) photographs (iii) videos (iv) audio recordings etc. Students must ensure that they follow the guidelines on confidentiality, consent and copyright etc. while collecting evidence.

After elective

Teaching without ‘testing’ is somewhat cooking without ‘tasting’¹⁵. Students’ electives need to be tested, and students need to show evidence of how they have achieved their learning outcomes. Reflective writing is the most commonly used tool as evidence because it makes the learning deeper and predicts critical thinking³. There is no word limit of reflective writing, but the amount of time they spend on creating their evidence should be equivalent to the amount of time they would spend on a 2000-word essay¹⁴. This will be part of their

assessment and will be graded by their mentor / facilitator.

Support

Study showed that monitoring the elective course is a crucial element for its success which is opposed to the tendency to keep electives untouched¹. Students have to be supported by a member of staff –a mentor to facilitate electives throughout the process. Medical teachers play the role of mentoring, one of the twelve important roles described by Harden¹⁶. Mentors can guide the students or mentees under them during their elective posting¹⁷. This is extra work for the mentors/course coordinators to handle the elective course, including the assessment². During mentoring it is important to assess the knowledge or how much students or mentees grasped from what has been told and explained about activities on elective by the mentor¹⁸. Mentors play a great role in helping their mentees to reflect on their experiences and learning from elective placement, considering a standard format of reflective writing agreed upon by the faculty or organiser. Effective communication between mentor and mentee is important to guide the students^{17, 19}. There is space for faculty development, as faculty need to pay more attention to improving student competency²⁰.

Conclusion

An elective is an outstanding opportunity to take responsibility for students' own learning and

prepare themselves for their future careers by increasing professional opportunities through experiencing things in a different kind of environment. Before starting an elective, students need to identify their (i) personal learning outcomes that they would like to achieve from their undertaking elective opportunity (ii) elective placement which would be the best place for them to achieve the personal learning outcome (iii) evidence of their experiences to show the mentor for assessment purpose. The implementation of an effective elective course in an institution principally requires faculty development, and thus they should be briefed about the different aspects of the elective course and the need for the same in the current era. This paper offers medical schools, faculty and elective students a window or a guide to implement and assess a sustainable, effective elective program in undergraduate medical education.

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Authors' Contribution

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References:

1. Ramalho AR, Vieira-Marques PM, Magalhaes-Alves C, Severo M, Ferreira MA, Falcao-Pires I. Electives in the medical curriculum an opportunity to achieve students' satisfaction? *BMC Med Educ.* 2020; 20:440. <https://DOI.org/10.1186/s12909-020-02269-0>
2. Mahajan R, Singh T. Electives in undergraduate health professions training: Opportunities and utility. *Medical Journal Armed Forces India* 2021; 77:S12-S15.
3. Shrivastava SR, Shrivastava PS. Introducing electives in the undergraduate medical training period: Points to ponder. *J Sci Soc* 2021;48(1):52-53.
4. Lumb A, Murdoch-Eaton D. Electives in undergraduate medical education: AMEE Guide No. 88. *Med Teach* 2014;36:557-72.
5. Agarwal A, Wong S, Sarfaty S, Devaiah A, Hirsch AE. Elective courses for medical students during the preclinical curriculum: a systematic review and evaluation. *Med Educ Online* 2015; 11;20:26615. DOI: 10.3402/meo.v20.26615.
6. Suzuki T, Nishigori H. National survey of international electives for global health in undergraduate medical education in Japan, 2011-2014. *Nagoya J Med Sci* 2018;80:79-90.
7. Nordhues HC, Bashir MU, Merry SP, Sawatsky AP. Graduate medical education competencies for international health electives: A qualitative study. *Med Teach* 2017;39:1128-37.
8. Ehn S, Agardh A, Holmer H, Krantz G, Hagander L. Global health education in Swedish medical schools. *Scand J Public Health* 2015;43:687-93
9. Comeaux Z. International health electives: Strengthening graduate medical education. *J Am Osteopath Assoc* 2013;113:446-7.
10. Salam A, Yousuf R, Allhiani RF, Zainol J. Continuous Assessment in Undergraduate Medical Education Towards Objectivity and Standardization. *International Journal of Human and Health Sciences* 2022;06(03):233-236. DOI: <http://dx.doi.org/10.31344/ijhhs.v6i3.453>
11. Donohoe A, Guerandel A, O'Neill GM, Malone K, Champion DM. Reflective writing in undergraduate medical education: A qualitative review from the field of psychiatry. *Cogent Education* 2022; 9:1, 2107293. DOI: 10.1080/2331186X.2022.2107293
12. [Reflective writing Structure \(westernsydney.edu.au\)](https://www.westernsydney.edu.au/assets/pdf_file/0007/1082779/Reflective_writing_Structure.pdf). Adapted from Western Sydney University School of Nursing and Midwifery (2016, pp. 70-72. Retrieved from: https://www.westernsydney.edu.au/_data/assets/pdf_file/0007/1082779/Reflective_writing_Structure.pdf Accessed date: 1st September 2022.
13. Ryan M, and Ryan M. ALTC Project: Developing a systematic, cross-faculty approach to teaching and assessing reflection in higher education: Final report. 2012. Retrieved from: https://www.westernsydney.edu.au/_data/assets/pdf_file/0007/1082779/Reflective_writing_Structure.pdf Accessed date: 1st September 2022.
14. Elective placements, School of Health Sciences www.nottingham.ac.uk/healthsciences/elective-placements-Nottingham.pdf Retrieved from: <file:///D:/ELECTIVES%20IN%20UG%20MED%20ED/elective-placements-%20Nottingham.pdf> Accessed date: 1st September 2022.
15. Zainol J, Salam A. An Audit on Mentor-Mentee Program: Mentees Perceptions on Mentors. *Bangladesh Journal of Medical Science* 2021; 20(04): 840-847. DOI: <https://doi.org/10.3329/bjms.v20i4.54143>
16. Harden RM, Crosby RMHJ. AMEE Guide No 20: The good teacher is more than a lecturer - the twelve roles of the teacher. *Med Teach.* 2009;22:334-347. doi: 10.1080/014215900409429.
17. Salam A, Begum H, Zakaria H, Allaw BAQ, Han T, Algantri KR, Mofta AG, Elmahi MEB, Mohamed EME, Elkhalfifa MAA, Zainol J. Core Values of Professionalism among Fresh Medical Graduates in a Malaysian Private University. *International Journal of Human and Health Sciences* 2021; 05(04):463-472 DOI. <http://dx.doi.org/10.31344/ijhhs.v5i4.358>
18. Salam A. TEA to Entertain Outcome Based Education for 21st Century Educators to Produce Safe Human Capitals for a Sustainable Global Development. *International Journal of Human and Health Sciences* 2022; 06(02):153-154 DOI. <http://dx.doi.org/10.31344/ijhhs.v6i2.437>
19. Salam A, Zakaria H, Abdelhalim AT, Choon LC, Alsharkawy A, Taibi MKBM, Satwi S, Hassan KM, Zainol J. Communication Skills of Fresh Medical Graduates in a Malaysian Private University. *Bangladesh Journal of Medical Science* 2022; 21(02):404-412. DOI: <http://doi.org/10.3329/bjms.v21i2.58074>
20. Salam A, Allaw BAQ, Begum H, Abdelhalim AT, Alsharkawy A, Hassan KM, Satwi S, Zainol J. Audit on Clinical Competency of Fresh Medical Graduates in a Malaysian Private University using Kirkpatrick Level-1 Evaluation Model. *Education in Medicine Journal* 2021;13(4): 57-70. <https://doi.org/10.21315/eimj2021.13.4.5>