EDITORIAL

ACADEMIC RESEARCH THROUGH LEARNING BY DOING

Iftikhar Ahmad, Muhammad Marwat, Habibullah Khan
Department of Community Medicine, Ophthalmology and Medicine,
Gomal Medical College, D.I.Khan, Pakistan

Research is a systematic process of learning to understand and solve the problems of life including health and disease.[1,2] Academic institutions are constantly engaged in transfer of knowledge and skills regarding research methodology.[3]

Learning by doing is a suitable approach that has occupied a central place in learning research. Health research methodology is more of an active transfer of skills than a passive transfer of knowledge. Workshops on medical writing as offered by many academic institutions need to focus on transfer of research skills in addition to transfer of knowledge to accomplish the objective of creating a true research culture.

Literature strongly supports skill-based learning.[4] Quote-unquote Confucius says "I hear and I forget, I see and I remember, I do and I understand."[5] According to Thad Guldbrandsen, a person who does the work does the learning. Kuan Chung says "Give a man a fish and he can eat for a day; teach a man to fish and he can eat for a lifetime.[6]

Budding researchers at both undergraduate and postgraduate levels have the will to learn. A research methodology course should be structured in such a way that the students are able to gain a skill of how research is conducted. 'Learning by Doing' encourages students' involvement in conducting research to attain the goals during their learning curve.

Research has four steps; Topic selection & formulation, data collection, data analysis and presentation of the findings.[1] After 'topic selection" most important skill to learn for a young researcher is 'topic formulation', which simply means conducting a preliminary mini-research about the topic to develop the problem statement, the pertinent variables, theoretical framework, the sub-hypotheses postulated about the relationships between the variables and research proposal. Once the proposal is approved, the rest of the three steps of data collection, analysis and presentation go according to the plan given in the proposal.

Students find their data collection task as the most difficult part of research, forcing them to make compromises due to lack of skill and limited resources. They need to be encouraged during data collection. They should be familiar with software-based data analysis programmes like SPSS to work-out statistics comfortably.

Finally Documentation (or presentation) of a research project needs writing skills which a prospective researcher must learn. Last but not the least, computer and IT skills are the foundations for researcher of today and the key is 'Learning by doing'.

Corresponding Author:
Dr. Iftikhar Ahmad
Assoc. Professor
Department of Community Medicine
Gomal Medical College
D.I.Khan, Pakistan
e-mail: iftikharahmadgandapur@yahoo.com

REFERENCES

1. Nawaz A. Manual on Research Methodology. 1st ed. Dera Ismail Khan: Gomal University; 2012. (available at www.drallahnawaz.wordpress.com)
2. Iliyas M. Community Medicine and Public Health. 7th ed. Karachi: Time Publisher; 2006.
3. Suryakantha AH. Community Medicine with Recent Advances. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2010.
4. Park K. Park's Textbook of Preventive & Social Medicine. 20th ed. Jabalpur: M/S Banarsidas Bhanot; 2012.
5. Aguado NA. Teaching Research Methods:

Learning by doing. J Pub Affairs Edu; 15: 251–60.

6. Pietersen C. Research as a learning experience: a phenomenological explication. The qualitative report 2002; 7(2). Retrieved 16-06-13, from www.nova.edu/ssss/QR/QR7-2/pietersen.htm

CONFLICT OF INTEREST
Authors declare no conflict of interest.
GRANT SUPPORT AND FINANCIAL DISCLOSURE
None declared.