

EDITORIAL

RESEARCH AND EDUCATION ARE INTERRELATED AND INTERDEPENDENT

Tehseen Iqbal

Department of Physiology, Ghazi Khan Medical College, Dera Ghazi Khan, Pakistan

Examine the mission statement of almost any institution of higher education, and you'll discover that teaching (education) and research are listed as important but not necessarily related functions of the organization.¹ The relationship between teaching and research is often assumed and just as often ignored. Research should and does influence teaching (and *vice versa*), but the gulf between the two can at times seem large.² So, there is a debate whether these two activities are related or not and what the two contribute towards the advancement of knowledge.

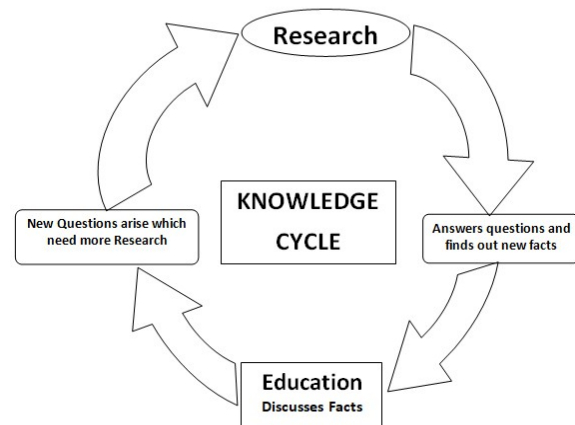
Man is imaginative and inquisitive, always struggling to know the facts about things and trying to explain events occurring around him. These instincts are not only his nature but they are more of his needs. These are also the prerequisites for a fact finding, elaborative, and scientific process called research. The word research is familiar to every one of us and we also know that research is done to find out new facts. But a few know that research is also carried out to prove or disprove the already known facts. Research is a planned, systematic and careful investigation towards increasing the sum of knowledge. This is also a fact that the knowledge is increasing day by day. In simple, plain language, knowledge may be called as a collection of facts. Research is the process of creating new knowledge by finding out new facts.

Humans are born illiterate and innumerate, and ignorant of the norms of society but with the help of education, within a few years they can read, write, calculate, and act in accordance with the societal norms. Education equips individuals with the skills and substantive knowledge that allows them to define and to pursue their own goals, and also allows them to participate in the life of their community as full-fledged, autonomous citizens.²

Education is also a means to disseminate facts or knowledge to many billion minds. During the process of education, the teacher and the taught ponder about the facts, analyzing and evaluating every facet of the topic under discussion. Teachers while preparing for their lectures think and reflect about each and every aspect of the relevant fact and discover new questions which require answers. At the same time, students by asking questions may reveal some newer aspects. Students' suggestions, comments, questions, and criticisms can elucidate new research directions.³ In the process of explaining

an existing phenomenon, both might discover that existing explanations, technologies, or theories don't actually suffice⁴ and start thinking about new solutions requiring further research.

Knowledge, research, and education are thus interrelated and interdependent activities. Research is actually the primary source of knowledge. Research answers questions and unearths new facts, which are disseminated through education triggering wide spread discussion and debate, surfacing new questions that further initiates new research. This may be called a Knowledge Cycle depicted in the Figure. It is also said that a good research answers a few questions but raises more questions. So, knowledge, research or education, any one of these activities will ultimately lead to a chain reaction; strengthening, reinforcing and complementing the other.



No doubt, efforts in the classroom can ultimately result in better research. In fact, although many educators are not necessarily researchers, the converse is undeniable. It is no accident that some of the best researchers are also excellent teachers. And, while some strong researchers who are not good teachers do exist, I believe that purposeful teaching effort does in fact result in much better research.³

REFERENCES

1. Buller J. Promoting Research While Advancing Instruction, Part 3. Available at: <https://www.facultyfocus.com/articles/academic-leadership/promoting-research-while-advancing-instruction-part-3>. [accessed on 29-6-2017]
2. Understanding the relationship between research and teaching. Available at: <http://www2.ncte.org/statement/researchandteaching/> [accessed on 29-6-2017]

3. Marsh HW, Hattie J. The Relation between research productivity and teaching effectiveness: complementary, antagonistic, or independent constructs? J High Educ 2002;73(5):603-41.
 4. Feamster N. The Relationship between teaching and research. Available at: <https://greatresearch.org/2013/11/01/the-relationship-between-teaching-and-research/> [accessed on 1-6-2017]
-

Address for Correspondence:

Prof. Tehseen Iqbal, Department of Physiology, Ghazi Khan Medical College, Dera Ghazi Khan, Pakistan. Cell: +92-315-6144799

Email: prof.tehseeniqbal@gmail.com