



## Validating Knowledge and Fostering Creativity in the University

Samuel Edelbring<sup>1\*</sup>

<sup>1</sup>Department of Learning Informatics, Management and Ethics, Karolinska Institutet, Stockholm, Sweden

### ARTICLE INFO

Article type:  
Letter to Editor

Article history:  
Received: 20 May 2012  
Revised: 28 May 2012  
Accepted: 02 Jun 2012

Keywords:  
Knowledge  
Universities

### ► Please cite this paper as:

Edelbring S. Validating Knowledge and Fostering Creativity in the University. *Thrita J Med Sci.*2012;1(2): 67-8. DOI: 10.5812/thrita.6574

Copyright © 2012 Kowsar Corp. All rights reserved.

Dear Editor,

The last issue of this journal addressed an important topic – undergraduate students' knowledge of research methodology. Jamali *et al.* (1) reported from a study suggesting that extracurricular workshops in combination with research experience improved students' knowledge of principles in research methodology. The authors acknowledge the value of research for the development and well-being of societies. Living in the small country of Sweden, which has developed tremendously as a result of technical and scientific innovations, I have to agree.

Now, each era, and each society has its own needs for research outcomes. In hindsight it is easy to conclude that Sweden's economical growth and well-being was associated with an innovative climate and the pioneering spirit of entrepreneurship. The needs of tomorrow's society are however more difficult to foresee. Combining the knowledge of the past with the energy and spirit of new generations, should put any society in a good position to tailor research needs to society's well-being. And so, the

new generation needs thorough knowledge of research methodology. This knowledge, as suggested by Jamali *et al.*(1), is promoted by workshops in research methodology. Similar ideas are implemented at the medical programme in the Swedish medical university of Karolinska Institutet (KI) in Stockholm, Sweden, in order to inspire and form future scientists. The KI approach is to integrate research methodology into the medical programme consisting of 5 weeks of study over 10 semesters that ends with a project report (2).

Scientific inquiry differs from simple inquiry in its mechanisms for safeguarding against error and bias. In order to validate new knowledge, students need foundations in sound research methodology. Four categories of establishing knowledge were presented by Peirce (3). The different ways to establish knowledge is ranked from the method of tenacity (the lowest degree of certainty) to the method of science (the highest degree of certainty). The philosopher Gadamer states that "...all understanding inevitably involves some prejudice"(4) (p. 272). Threats from prejudice and error need to be dealt with. The historical Enlightenment movement brought mechanisms to discover prejudice from a) human authority and; b) over hastiness in ourselves (4). Knowledge of research methodology may help acknowledge prejudice and offers us the tools to interpret findings in relation to our

\* Corresponding author: Samuel Edelbring, Department of Learning Informatics, Management and Ethics, Karolinska Institutet, Stockholm Sweden. Tel: +46-852483612, Fax: +46-8345128, E-mail: Samuel.edelbring@ki.se

own culture.

However, scientific progress also needs growth of ideas to flourish. Enquiry starts with curiosity and ideas need to be cultivated under favourable conditions. Törnqvist, who investigated the creativity in the environments of Nobel laureates argues that “Individuals with unique skills and creative capacities are the main prerequisite for invention and thorough renewal” (5). Furthermore, he acknowledged how innovations develop into societal benefits. A dialectic relationship between new ideas and interaction with society is needed in addition to methods of asserting secure knowledge. Consequently, in addition to research methodologies, a supporting climate can also benefit innovations to develop into productive outcomes – improved health for people and societal well-being.

### Financial Disclosure

No external funding was provided.

### References

1. Jamali A, Adili Aghdam F, Hassanpour K, Mollazadeh Moghadam K. Undergraduate Medical Students' Knowledge about Principles of Research Methodology and Impact of Extracurricular Principles of Research Workshops: A Cross-Sectional Study in Tehran University of Medical Sciences. *Thrita J Med Sci.* 2012;**1**(1):8-12.
2. Karolinska Institutet. VetU, Scientific development. 2012; Available from: <http://pingpong.ki.se/public/courseId/5587/lang-sv/publicPage.do?item=3850168>.
3. Watt JH, van den Berg S. Research Methods For Communication Science: Communication Institute for Online Scholarship. 2002; Available from: <http://www.cios.org/readbook/rmcs/rmcs.htm>.
4. Gadamer HG. *Truth and method.* 2., rev. ed. London: Continuum; 1975/2004. 2nd rev. ed. trans ed. Weinsheimer J, Donald G, editors. New York: Continuum: Marshall; [1975] 2004.
5. Törnqvist G. Creativity in Time and Space. . *Geografiska Annaler: Series B, Human Geography.* 2004;**86**(4):227-43.

Archive of SID