Message from the Head, Centre for Research & Development

The year 2008 had just begun and before you know it, we have already crossed Quarter 1. What an eventful period it was for Malaysia with the "political tsunami" that has changed the political dimension of the country. Now, how is this going to affect the status of research and development in Malaysia? Will the private higher institution of higher learning have more opportunities given to access the research fund to the private sector?

The Ministry of Science, Innovation & Technology (MOSTI) conducted a briefing to all institution of private higher learning at their office in Putrajaya recently to encourage the private sector to submit proposals to access the Fundamental Research Grant Scheme (FRGS) and the R&D Fund which included the Science Fund, Innovation Fund and Techno Fund. So, if you have some brilliant research ideas, please see me to work on your proposal for submission to MOSTI.

Over at the Centre for Research & Development (R&D), I would like to take this opportunity to welcome the many new academic staff who have joined the various programme at TUCMC, TBS/ADTP, TCFJ & TCHT. There are many programmes and plans in store for 2008 to assist both the young researchers and the seasoned researchers to further contribute to the body of knowledge. So, please take opportunity to participate and reap from these talks, seminars, workshops, conferences, etc.

Take advantage of the many research funding and fellowship programmes to upgrade your qualification or to work on real research and consultancy work.

Please feel free to drop by my new office if you require any assistance or would like to contribute to the research and development initiative of the Centre for R&D and Taylor's in general.

Happy researching...

Warm regards,
Dr. Vic Nair

IMPORTANT NOTICE!
The Centre for R&D is relocated from its current location at the Leisure Commerce Square to Taylor's Business School (Level 1) w.e.f. 21st April 2008.
The ABC of Understanding Research [By Dr. Vic Nair]

Which of these can be classified as research?

1. Mr. Michael Ngow prepared a paper on "computer usage in private colleges" after reviewing literature on the subject available in the TC library and called it a piece of research.
2. Ms. Ee Hooi Cheng says that she has researched and completed a document which gives information about the age of her potential students, their SPM results, the income of parents and their preference to specialise.
3. Dr. Irene Tan participated in a workshop on curriculum development and prepared what she calls, a research report on the curriculum for developing good teachers. She did this through a literature survey on the subject and by discussing with the participants of the workshop.

None of the above examples can be classified under the name research. These are called "study". WHY? You will know it when you have understood the concept of the term "research" at the end of this article.

Now, consider the following case which is an example of research:

- A general manager of a restaurant was concerned with the complaint received from diners that the cutleries used in the restaurant are of cheap quality.
- He obtained information from the staff to identify various factors influencing the problem.
- He then formulated the problem and generated guesses (hypothesis).
- He constructed a checklist and obtained requisite information from a representative sample of cutleries.
- He analysed the data thus collected, interpreted the result in the light of his hypothesis and reached conclusions.

You will notice in the example the researcher went through a sequence of steps which were in order and thus systematic. Secondly, the researcher did not just jump at the conclusions, but used a scientific method of inquiry in reaching at conclusions.

Thus, the two important characteristics of research are:
1. It is systematic
2. It follows a scientific method of enquiry

In summary:

STUDY: Devotion of time and attention to acquiring information, knowledge or methodologies from books and other sources of information.

RESEARCH: Systematic investigation into and study of material, sources, etc. in order to establish facts and reach new conclusions.

Hence, research involves:

- Hunting for facts or truth about a subject.
- Research is systematic, because it follows certain steps that are logical in order. These steps are:
  1. Understanding the nature of problem to be studied and identifying the related area of knowledge.
  2. Reviewing literature to understand how others have approached or dealt with the problem.
  3. Collecting data in an organised and controlled manner so as to arrive at valid decisions.
  4. Analysing data appropriate to the problem.
  5. Drawing conclusions and make generalisation.
- Organised scientific investigation to solve problems, test hypotheses, develop or invent new products. This means that it makes an integrated use of inductive and deductive reasoning. It starts with the construction of hypotheses from casual observations and background knowledge (inductive reasoning) to reasoning out consequences or implications of hypothesis (deductive reasoning) followed by testing of the implications and confirmation or rejection of the hypotheses.

Integrated use of inductive and deductive reasoning is, therefore, the essence of scientific method. This makes it very useful for explaining and/or predicting phenomena. The basic assumption of the scientific method is that every effect has a cause.

What is High Quality Research?

- It is based on the work of others; It can be replicated (duplicated); It is generalisable to other settings; It is based on some logical rationale and tied to theory; It is doable; It generates new questions or is cyclical in nature; It is incremental; It is apolitical activity that should be undertaken for the betterment of society.

Then, What is Bad Research?

- The opposite of what have been discussed; Looking for something when it simply is not to be found; Plagiarizing other people’s work; Falsifying data to prove a point; Misrepresenting information and misleading other researchers.