Making Connections: a Serious Problem for Undergraduate Students[1]
By
Rizky Rosjanuardi

Analysis and algebra are all subjects related to Real Analysis and Algebraic Structures, two compulsory subjects for both education and pure mathematics students. We list all of the subjects in this table:

Analysis	Algebra
Calculus, Differential Equations, Partial Differential Equations, Real Analysis, Topology, Complex Analysis, Integral Theory, Functional Analysis	Number Theory, Algebraic Structure, Linear Algebra, Matrix Algebra, Polynoms and their Extension Algebras, Lattice Algebra, Boolean Algebra, Structures of Groups and Rings, Modul and Vector Space, (Graph Theory?)

(Is everything already on board?)

Informal observations show that students' comprehension on analysis and algebra are mostly poor. Why can I say that?

Getting back to the question, I am going to try to share my personal experience. Since 2003 I normally teach the following subjects: Algebraic Structures (I and II), Calculus I, Boolean Algebra, and last semester I taught Lattice Algebra. During the lectures I normally ask some students regarding their academic back grounds such as their academic achievements, stuffs they already studied in the previous subjects, etc. For example when I teach Algebraic Structures II, I ask some students " what did you get in Algebraic Structure I, in Number Theory, in Calculus, in Real Analysis?", "what did you learn in Algebraic Structures I, what did you up to?".

I found that most students already passed the prerequisite subjects, and some of them got very good marks and some got excellent. I conclude that they already achieved their best. But, I found something has gone wrong with students' comprehension. Frankly I can say that students have a serious problem to make any connection among subjects that they have taken in the previous semesters. For example most student can not see any relation between the group theory with vector space theory that they just taken in the previous semester. Mostly students got stuck when I raise a question like this "Can you find any similarity between this concept with some concepts you have studied in the previous subject at last semester?".

I realise that this is a very serious problem. What the hell has happened with students? It is not fair if we just blamed students. I am sure, we, teachers have a responsibility for this problem, at least we must have an awareness for this problem.

One thing I can suggest is, in introducing a new concept, we have to try to make any connection with similar concepts in the previous subject that students already taken. Sometimes I need to put a number of different concepts together, and let students find their similarity out. Encourage students to view anything from distance when introducing a new concept. Forget all the details and look at the whole thing thoroughly. We have to make a condition in such a way so that students realise that every concept in mathematics is related to each other. Connecting to other subjects is a must.

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[1] C;\Courses in UPI\Making Connections.doc, E:\UPI-PASCA\Making Connections