Designing Curricula, which Produce Leader-Integrator of Tomorrow

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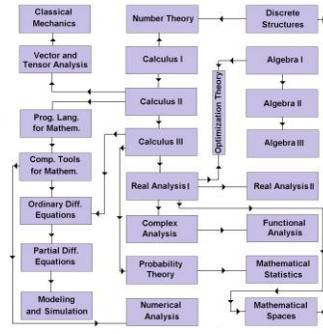Fig. 1. Discussing educational policy during KU EDUCONF 13

Fig. 2. Precedence and influence graphs representing pre-requisites and co-requisites for BS courses

Before designing and developing curricula, the curriculum developer must be clear about the goals and the objectives of education. Curricula should cultivate habits of creative thinking and critical analysis (http://www.ngds-ku.org/papers/C24.pdf), by providing highly-motivated students sufficient depth (determined by precedence graphs) as well as adequate breadth (determined by influence graphs) of the core and the related subjects (Fig. 2), so that they can make informed, independent, decisions, under stressful situations (http://www.ngds-ku.org/Papers/C70.pdf) and create a mindset to be able to resolve conflicts (Fig. 3). Various aspects of curriculum development ('why to teach' – *philosophy*; followed by 'what to teach' – *contents* and lastly, 'how to teach' – *pedagogical techniques*) should be integrated. Philosophical basis of the education system should be such that the student is educated to become a *manager* of resources of the universe (not a *thief*) and knows relationship with Allah, self and environment (http://www.ngds-ku.org/Presentations/Education.pdf). Contents should be developmentally appropriate, consistent with philosophy and have no conflict in terms of depth and breadth of the topics taught. Pedagogical techniques should conform to the cultural values and encourage student participation by including activities, which could be conducted in local environment (Fig. 4). *What to learn* is the main factor in TRAINING. A trained person 'knows' the techniques, which can be repeated under standard situations. *How to learn* is the essence of EDUCATION. An educated person 'knows', 'can explain' and 'can apply' the concepts and the techniques. Emphasis is placed on concept building (through debates, discussion sessions, activities) and technique developing (smart approaches to problem solving). The curricula developed should give equal importance to moral upbringing, intellectual up-bringing and physical upbringing. There should be a system of follow through (monitoring) and follow up (evaluation) through feedback from students, lecture/tutorial/problem-solving-session observation by senior teachers and videotaped lecture/tutorial/problem-solving-session evaluation by experts. The curricula should, not only, increase IQ, but also, develop emotional intelligence (EQ) and ability to portray vision as well as communication and networking skills. The students should be trained in the *sound* style of leadership (*commit* and *contribute*), in contrast to indifferent (evade and elude), accommodating (yield and comply), autocratic (direct and dominate), status quo (balance and compromise), opportunistic (exploit and manipulate) and paternalistic (prescribe and guide) styles, making the student realize the 3 components of an organization — structure, culture and development. One must realize that every leader is a manager. However, it is not true the other way around. Curricula of the final year of each certificate or degree program should have components, which help the graduates seek jobs, by training them, not only, in the technical (subject) skills (horizontal or *x* axis), but also, in the performance (managerial) skills (vertical or *y* axis), as well as the innovative (out-of-the-box thinking) skills (normal or *z* axis). For a mathematics teacher, examples of the first include *equation formulation* and *graph interpretation*, the second include *handling smart* as well as *trouble-making students* and the third include *presenting a new mathematical model* or *applying an existing theory to a different branch of knowledge* (http://www.ngds-ku.org/math/Math_Job.pdf). Leadership of tomorrow is in the hands of teacher of today — could make the student a visionary or a myopic extremist.

Fig. 3. Conflict resolution and leadership style
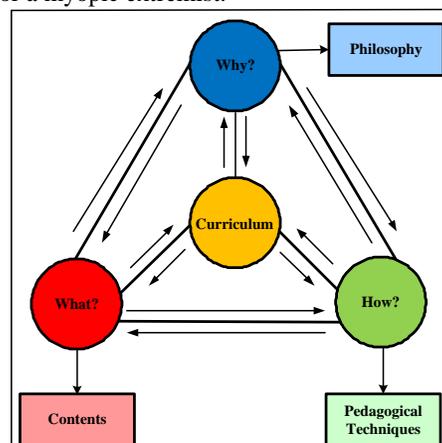
Fig. 4. Three ingredients of curriculum designing

Web address of this document: http://www.ngds-ku.org/Presentations/Leader-Integrator.pdf
HTML version: http://www.ngds-ku.org/pub/confabstA.htm#C113:

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