Special Communication

Androgogy; How Adults Learn

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Pedagogy, the science and art of education evolved through work done on how children learn. A number of developments in educational psychology over the past thirty years have led to a growing realisation that adults learn differently. This development has important implications for teachers of higher education and all those who deal with the training of adults. The new emerging science of how adults learn is called Andragogy.

Andragogy is a new field which as described by Merriam.[1] "while not really a theory of adult learning, andragogy does capture general characteristics of adult learners, and does offer guidelines for planning instruction with learners who tend to be at least somewhat independent and self-directed".

The name androgogy was introduced by Malcom Knowles in 1973 that later in 1980 and 1984 put forward a set of five assumptions to describe Androgogy.[2] These are

1. As a person matures, his or her self-concept moves from that of a dependant personality toward one of a self-directing human being. Adults are capable of determining their own learning needs, and of finding means to meet them.

2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning. The experience can be brought to bear on new learning, and enhance the acquisition on new knowledge and skills.

3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role. Adults value learning that integrates with the demands placed upon them in their everyday life.

4. There is a change in time perspective as people mature, from future application of knowledge to immediacy of application. Thus an adult is more problem centred than subject centred in learning. Generally, adults value learning that can be applied to authentic problems that they encounter in everyday life.

5. Adults are motivated to learn by internal factors rather than external ones. The internal desire to succeed, the satisfaction of learning, and the presence of personal goals have a greater effect on motivation than external incentives and rewards.

None of the above assumptions are new. They have been there for a very long time as part of the overall understanding of human behaviour. What is new is that they have brought together and used for adult education.

Let us reflect back and remember the things we learnt as adults, and how and why we learnt it?

For example why did we learn how to drive a car? Were we forced to learn it as part of a requirement to pass an examination, or was someone giving us a reward for doing so. We learnt it because

i) We felt the need for it. (setting your own goal)

ii) Our own desire was the reason for the high motivation.

iii) We saw others doing it, and were encouraged to think that if they could do it why can I not do it (role models or demonstration of professional skills by an expert)

iv) We learnt it at our own pace. In other words there were no time constraints forced on us by a superior authority

v) While learning we assessed our own progress. (Self assessment)

vi) We learnt by doing it ourselves and then practicing till we reached the desired competency level.

vii) While learning we reflected on how we were doing and how we could improve further (Reflective Practitioner).

viii) The final reward was our own satisfaction and pleasure at achieving the desired competency.

Car driving is not the only thing I learnt as an adult. Computer is another very pertinent example of it. I learnt the use of computers by sitting down and doing it and asking a more experienced person to help when I got stuck. Gradually I acquired the skills to the extent that I needed it. I first learnt the word processing part because I wanted to be independent of typists. Later I needed slides for my presentations, so I learnt to use Power Point. I do not need a broadsheet so I have never learnt how to use Excel or Fox pro even though they are part of the package that I have. When and if I need them I will learn them. My learning was driven by my need and to the extent that it fulfilled my requirements.

The above developments have significance for all forms of adult learning. These developments are very relevant for higher education, particularly of the professions-medicine, law, engineering etc.

Problem Based Learning (PBL) is one example of an instructional strategy which utilises the knowledge of how adults learn. In institutions where PBL is used the students are given a problem relevant to the course objectives. In small groups of 6-10 the students discuss the problem by activating their existing knowledge base and then identifying issues/points which they do not understand or want more information on. At the end of the first session usually lasting two hours the students have prepared their group's 'learning objectives'. The students then individually consult different available sources-textbooks, internet, journals etc- to answer the issues identified as learning objectives. In the second session the students share with the group the information they have gathered. In the third session the group works towards finding a solution to the problem based on the knowledge that they have accumulated in the first two sessions.

For PBL sessions each group elects its own leader with one other member acting as recorder. There is a tutor with each group, who is there as a facilitator and observer. His or her role is to let the students conduct the sessions and only intervene in case the discussion is moving away from the task in hand. There too they are advised to only do so by posing the right questions and not providing information.

The PBL process is thus student centered and encourages active participation where students first activate their prior knowledge to solve the problem and then set their own learning objectives. This way they build upon what they know through self study and then elaboration in group discussions. In medicine the problem given is clinical and reflects the conditions which the students are likely to meet in real life (Contextual learning). In PBL based curriculum the students are better motivated towards the learning process since they can see the application of what they are learning, to real life problems.

A number of other developments in Psychology have implications for how adults learn.

These are the Social Cognitive Theory, which highlights the need for a conducive environment in which learning takes place. Here the importance of having a model who can demonstrate the competency followed by opportu-

opportunities to practice it and getting feedback is emphasised. In medicine the learning of communication skills is a good example of this theory.

The next is the theory of Reflective Practice. This outlines the need for reflecting back on the learning experience/session and integrating it with the existing knowledge base. For those who wish to learn more about Reflective Practice, there is a journal on the subject which is in the sixth year of its publication.[3]

Another theory of interest is that of Transformative Learning. This theory describes how adults elaborate, create and transform the beliefs, feelings, interpretations through reflection and free discussions of the content and then develop new paradigms.

References

1. Merriam 1996 cited by Kaufman DM, Mann KV, Jennett PA Teaching and learning in medical education: how theory can inform Practice. Association for the study of medical education, 2000. Edinburgh:
2. Malcom Knowles 1980 and 1984. ibid.
3. Reflective practice. Carfax Publishing .UK.