

The Application of Andragogical Model in the Continuing Professional Education

成人教育 模式在專業繼續教育應用^o

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Abstract:

According to Knowles' andragogical model, the author summarizes the key elements of andragogy as follows: The characteristics of learners are: a rich resource for learning, readiness to learn, self-directiveness, autonomy and motive to learn. The characteristics of educators are: facilitator, promoter, and participator. The design elements of andragogical model are: establishing a climate conducive to learning, creating mutual planning, diagnosing needs for learning, formulating objectives, designing a pattern of learning experience, and evaluating the learning outcomes.

According to Houle's (1980) suggestion, there are fourteen essential characteristics of professionalization which are appropriate content for continuing professional education. Houle's insights into continuing professional education are considered in nursing field as guideline of the concept and content of continuing professional education. By applying the andragogical model, practitioner may make practice effective and efficient.

key word: Andragogical Model, Continuing Professional Education

Introduction

In this paper, the author attempts to clarify the implications of andragogical model for facilitating learning and applies this model in continuing professional education in nursing for improving practice. According to Knowles' andragogical model, the author adopts the concept of andragogical model as "the art and science of helping adult learn" (Knowles, 1990, p.54). The author settles the continuing professional education as the focus of the field of nursing.

The concept of professional education, "according to Houle, the conventional relatively undifferentiated concept of continuing education was a series of attempts to maintain or modernize the professional's knowledge and skill that occurred after induction into the profession. The modern conception of continuing professional education reflects anticipated events in the career span of the professional" (Langenbach, 1988, p.108).

Adopting Houles` concepts of continuing professional education and fourteen essential characteristics of professionalizing, the author discovers the elements and direction of the continuing professional education. Finally, the author tries to build a holistic understanding of andragogical model through literature reviewing and then to develop a framework for applying in continuing professional education in nursing.

Andragogical Model: A theory of Adult Learning

Historical trace of andragogy

According to Knowles (1990), the origins and use of the term andragogy was studied by a Dutch adult educator, Ger Van Enckevot. The term of Andragogik was first invented by a German grammar school teacher, Alexander Kapp, in 1833. The term was forgotten and disappeared for nearly a hundred years (p. 51). Van Enckevot found the term being used again in 1921 by the German social scientist Eugen Rosenstock, who taught at the academy of Labor in Frankfort. Eugen Rosentock also expressed the opinion that adult education required special teachers, special methods and a special philosophy. But at that time the term of andragogy did not receive general recognition (p.52).

During 1950s, there are several publishing dealt with the term of andragogy as the follows: A Swiss psychiatrist, Heinrich Hanselmann published "Andragogy: Nature, Possibilities and Boundaries of Adult Education". A German teacher, Franz Poggeles published a book entitled " Introduction to Andragogy: Basic Issues in Adult Education". Mogrizovic published a book entitled " Problems of Andragogy". In the Netherlands, professor T.T.Have published the outlines for a science of andragogy. (Knowles, 1990, p. 52)

According to Knowles (1990), " Since 1966 the university of Amsterdan has had a doctorate for andragogues, and in 1970 a department of pedagogical and andragogical sciences was established in the faculty of social science; ... and ' andragogy' which is the scientific study of both andragogy and andragogies" (p.53).

Knowles (1990) stated that in USA, the theory of andragogy has been reported a number of articles and an increasing volume of research on hypotheses derived from andragogical theory is being reported ; Also, the concepts of andragogy are beginning to make an impact on the theory and practice of elementary, secondary and collegiate education. Knowles asserted that " Perhaps andragogy will give it at least a unifying theory and extend in its

application to the concept of life-long education; Perhaps andragogy will provide a unifying theme for all of education" (Ibid., p.53).

The Concept of Andragogy

According to Knowles (1990), the term of Andragogy was first invented by a German grammar school teacher, Alexander Kapp, in 1833. Kapp described that the educational theory of the Greek philosopher Plato was andragogy. In 1921, the German social scientist Eugen Rosenstock expressed the opinion that adult education should require special method, " in contrast to a pedagogue, an andragogue" (Ibid., p.52). Knowles, in the book of "Informal Adult Education" (1950), organized his ideas about adults' learning --- " best in informal, comfortable, flexible, nonthreatening settings" (Knowles, 1990, p. 54). In the mid-1960', influenced by Yugoslavian adult educator, Knowles reorganized the concept of andragogy-- " in fact , [andragogy] incorporates pedagogy rather than opposing it" (Knowles, 1985, p.8); " the art and science of helping adults learn" (Knowles, 1990, p. 52) ; " the andragogical model is a system of assumptions which includes the pedagogical assumption" (Ibid.,p.64).

The concept of andragogy is the art and science of helping adults learn. Then there arises a question: what do we mean by adult? Knowles (1990) stated that there are four definitions of adult as follows:

First, the biological definition: we become adult biologically when we reach the age at which we can reproduce. ... Second, the legal definition: we become adult legally when we reach the age at which the law says we can vote, get a driver's license, marry without consent, and the like. Third, the social definition: we become adult socially when we start performing adult roles, such as the role of full-time worker, spouse, parent, voting citizen, and the like. Finally, the psychological definition: we arrive at a self-concept of being responsible for our own lives, of being self-directing. From the viewpoint of learning, it is the psychological definition that most crucial... But most of us probably do not have full-fledged self-concepts of self-directedness until we leave school or college, get a full-time job, marry, and start a family.(p.57)

The Assumptions of Andragogy

Andragogy is an approach to adults' learning. According to Knowles(1990), there are six assumptions of andragogical model:

1. The need to know. Adults need to know why they need to learn something before undertaking to learn it. ... The first task of the facilitator of learning is to help the learners become aware of the "need to know".
2. The learners' self-concept. Adults have a self-concept of being responsible for their own decisions, for their own lives. Once they have arrived at that self-concept they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction.
3. The role of the learners' experience. Adults come into an educational activity with both a greater volume and a different quality of experience from youth. ... It assures that in any group of adults there will be a wider range of individual differences than is the case with a group of youths. ... The great emphasis in adult education on individualization of teaching and learning strategies. ... Hence, the greater emphasis in adult education on experiential techniques ... such as group discussion, simulation exercise, problem-solving activities, case method, and laboratory methods.
4. Readiness to learn. Adults become ready to learn those things they need to know and able to do in order to cope effectively with their real-life situations. An especially rich source of readiness to learn is the developmental tasks associated with moving from one developmental stage to the next.
5. Orientation to learning. In contrast to children's and youth's subject-centered orientation to learning (at least in school), adults are life-centered (or task-centered or problem-centered) in their orientation to learning. ... They learn knowledge, understandings, skills, values, and attitudes most effectively, when they are presented in the context of application to real-life situations.
6. Motivation. While adults are responsive to some external motivators (better jobs, promotions, higher salaries, and the like), the most potent motivators are internal pressures (the desire for increased job satisfaction, self-esteem, quality of life, and the like) (p.57-63).

The Design Elements of Andragogical Model

Knowles (1990) pointed that " the andragogical model is a process model" (p.118). " The process models concerned with providing procedures and resources for helping learners acquire information and skills" (p.120). The andragogical teacher prepares in advance a set of

procedures for involving the learners in process involving these elements:

- (1) Establishing a climate conducive to learning
- (2) Creating a mechanism for mutual planning
- (3) Diagnosing the needs for learning
- (4) Formulating program objectives (which is content) that will satisfy these needs.
- (5) Designing a pattern of learning experiences
- (6) Conducting these learning experiences with suitable techniques and materials.
- (7) Evaluating the learning outcomes and rediagnosing learning needs.

(p.120)

According to Knowles' the design elements of andragogical model, the follows are the description for each items.

Establishing a climate conducive to learning

According to Knowles (1990), the quality of environment for learning has been increasing concern among educators. There are two aspects of climate: physical environment and psychological atmosphere.

- Physical environment: classroom setting, classroom color.
- Psychological climate:

A climate of mutual respect; A climate of collaborativeness; A climate of mutual trust; A climate of supportiveness; A climate of openness and authenticity; A climate of pleasure; A climate of humanness.

Creating a mechanism for mutual planning

Knowles (1990) asserted that " people tend to feel committed to a decision or activity in direct proportion to their participation in or influence on its planning and decision-making" (p.125). Andragogical model provides " the role of the learner in planning" (p.125).

Diagnosing the needs for learning

- Constructing a model

Knowles (1990) stated that " constructing a model of desired behavior, performance or competencies is an effective vehicle for determining learning needs. There are three sources of data for building such a model : "the individual, the organization and the society" (p.126).

Individual learner's own perception of desired behavior, performance, or competencies is the starting point in diagnosing the needs for learning. Adult educators have some responsibilities for providing him with information, so that learner can begin to develop a

realistic model for himself.

Organizational perceptions of desired performance are obtained through system analyses, performance analyses, and analyses of such internal reports.

Social perceptions of desired performance or competencies are obtained from reports by experts in professional and technical journals, research reports, periodical literature, and books and monographs.

- **Assessing Discrepancies**

Knowles (1990) pointed that " according to andragogy, the critical element in the assessment of the gaps is the learners' own perception of the discrepancy between where they are now and where they want (and needs) to be" (p.128). Adult educators provide the learners with the tools and procedures for self-assessment.

Formulating program objectives

According to andragogical theory, "the learner is likely to resist unless the freely chooses them as being relevant to his self-diagnosed needs" (Ibid. p.132). Formulating program objectives is mutual negotiation between learners and educators.

Designing a pattern of learning experiences

According to Knowles, the andragogical model involves choosing problem areas that have been identified by the learners through self-diagnostic procedures and selecting appropriate formats (individual, group, and mass activities) for learning" (p.133). " But the adults we work with have not learned to be self-directing inquires; They have been conditioned to be dependent on teachers to teach them. So they often experience a form of culture-shock when first exposed to truly adult educational programs" (p.134). Adult educators should design the programs for new entrants a preparatory learning --how-to-learn activity.

Operating the program(Conducting learning activities)

According to Knowles (1990), " this element of the program development process is concerned focally with the resources developer's role as administrators, and learning-teaching theories have very little to say about this role. ... I see the centrally crucial factor in program operation to be the equality of faculty resources." (p.136). The role of administrators is a developer of human resources development personnel through both preservice and inservice educational training programs.

Evaluating the program

- Reaction evaluation: Evaluating how the participants are responding to a program as it take place--- What they like most and least, what positive and negative feelings they have.
- Learning evaluation: This step should include both pretests and posttests.

- Behavior evaluation: After the training, what the learners do actually change as compared with what they did before.

Results evaluation: Knowles (1990), "If every learning experience is to lead to further learning, as continuing educator implies, then every evaluation process should include some provision for helping the learners re-examine their model of desired competencies ... Thus repeat of the diagnostic phase becomes an integrate part of evaluation phase" (p.139).

In order to understand the designs, the following exhibit is the difference in designs between the pedagogical model and andragogical model (Knowles, 1990, p.119)

Exhibit I

A Comparison of Designs of Pedagogy and Andragogy

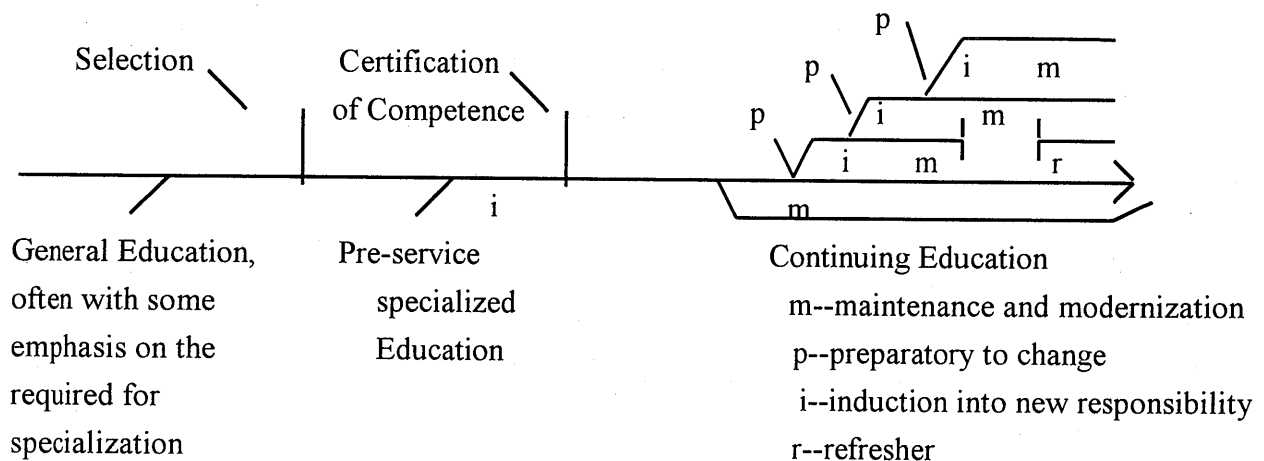
	Design Elements	
	Pedagogy	Andragogy
Climate	Authority-oriented Formal Competitive	Mutuality Informal Respectful Collaborative
Planning	By teacher	Mechanism for mutual planning
Diagnosis of Needs	By teacher	Mutual self-diagnosis
Formulation of Objectives	By teacher	Mutual negotiation
Design	Logic of the subject matter Content units	Sequenced in terms of readiness Problem units
Activities	Transmittal techniques	Experiential techniques (inquiry)

Evaluation	By teacher	Mutual re-diagnosis of needs Mutual measurement of program
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Continuing Professional Education

Spurway(1995) stated that " In order to maintain and develop professional conceptence in a climate of rapid technological, scientific, sociological and social policy changes, continuing professional education is vital" (p.378).

According to Houle (1980), "the conventional conception of continuing education was a relatively undifferentiated series of attempts to maintain an modernize the professional's knowledge and skill that occurred after induction into the profession. The modern conception of continuing professional education reflects anticipated events in the career span of the professional"(p.106). The following figure describes the typical stages of a professional's career and placement of continuing professional education with regard to those stages (p.106).



According to Houle (1980), " within professional setting, there are three overlapping modes of learning: inquiry, instruction and performance" (p.109). The continuing professional education should involve these three modes of learning in order to facilitate learning. Also the three modes of learning are essence of professionalization. After studying seventeen different professionalizing groups, Houle (1980) suggests that there are fourteen essential characteristics of professionalization as follows:

1. Clarifying its defining function or functions

According to Houle (1980), seeking to redefine or reestablish basic functions, the practitioners are expected to participate in all three modes of learning: inquiry, instruction and performance. Continuing professional educators need to aware of

opportunities to initiate or facilitate the learning experience in all three modes.

2. Mastery of theoretical knowledge

Every occupation field seeking professionalization is based on theoretical knowledge contained in the disciplines of the arts and sciences.

The disciplines within the arts and sciences are seeking truth in contrast to the applied fields wherein solutions to individual or social problems are pursued. (Ibid., p.14)

3. Capacity to solve problems

Houle asserts that " the ultimate test of the success of a professional is the ability to solve problems (or to decide that they can't be solved), and these problems usually involve vital and deeply significant outcomes" (Ibid., p.43). Continuing professional education programs should address the professional's need of sensitivity to solve problems.

4. Use of practical knowledge

The practical knowledge is that applies directly to the occupation. Through the application of theories or tenets developed over time within the profession, professional practitioners solve individual and social problems. The combination of new knowledge from the applied fields with the practitioners' experiences usually results in enlightened practice.

5. Self-enhancement

Houle claims that including and acting upon interests other than one's occupation is efforts toward self-enhancement. People's capacity for learning is enlarged when other interests are maintained. Professional practitioners discover on their own that developing new interests can provide valuable insights to their practice.

6. Formal training

Any occupation seeking professionalization see it that " formal procedures should be established to transmit the essential body of knowledge and technique of the vocation to all recognized practitioners before they enter service and throughout their careers" (Ibid., p.51). Formal training is seen as an indispensable characteristic of professionalization.

7. Credentialing

Credentialing is typically carried out by government. It is the formal means by which an individual's capacity to perform at an acceptable level is tested. Learning more about credentialing itself may be legitimate content for continuing professional education.

8. Creation of subculture

Creating a subculture means promoting " lore, folkways, mores, traditions, role differentiations and relationships, variations in authority and power, personal prestige systems, language and special references not understood by uninitiated and clusterings of people with distinctive

functions" (p.57). According to Houle, most of the immersion into this subculture is achieved informally, but it can be promoted through continuing professional education.

9. Legal reinforcement

A professionalizing occupation often needs the force of law to protect the special rights and privileges of its practitioners. Houle states, " among these prerogatives are the exclusive right to practice their profession, the power to perform legally binding acts, the right to maintain inviolable confidentiality in their relationships with their clients, and access to financial support for their research and training activities" (p.59). At the continuing professional education level, the three learning modes of inquiry, instruction and performance can be used to pursue understanding legal issue.

10. Public acceptance

Critical to any professionalizing occupation is public acceptance of it as a profession. Houle believes public acceptance should not be addressed directly through continuing education, but should be expected to improve as a by-product of other educational emphases.

11. Ethical practice

Houle considers one of the greatest challenges to continuing education to be establishing settings where the ethical issues can be debated and discussed. Establishing and maintaining a tradition of ethical practice is important by occupational group.

12. Penalties

Failure to act according to accepted standards of ethical practice should result in penalties to the individuals of an occupational group if that group is concerned with advancing its professionalization. Continuing professional education should address the application of ethical standards to promote this characteristic of professionalization.

13. Relations to other vocations

Houle believes improvement of the relationship between different occupational group is possible and advisable for the mutual benefit of the affected group. Continuing education can serve to improve relations with other vocations by using team approaches in employment settings and by providing training opportunities that require collaborative approaches.

14. Relations to users of service

The relations to users of a service can be learned only through practical experience. Continuing education can facilitate this understanding through the three modes of learning available to practitioners.

The fourteen characteristics of professionalization can never be fully achieved and, as Houle points out, " the race for professional accomplishment has no finish line" (p.74). Therefore the continuing professional education is vital. As Houle's suggestions of characteristics of professionalization, the content of continuing professional education in nursing field should include these characteristics.

The Application of Andragogical Model in Continuing professional Education in nursing field

The mission of continuing professional education in nursing

The American Nurses` Association believes the mission of continuing professional education in nursing as follows: (adopted from Knowles, 1985, p.312)

- Continuing education is essential for maintaining competence in nursing practice.
- Faculties in schools of nursing have a responsibility to assist students in conceptualizing nursing as a health career that requires lifelong learning.
- Continuing education is necessary for the personal growth and professional maturity of the individual.
- Continuing education should communicate concepts and theories of nursing science and should facilitate their incorporation into nursing practice.
- Providers of continuing education should continually assess and periodically evaluate the effectiveness of educational offerings.
- Providers of continuing education should assist in the field testing of nursing knowledge and competence that may later be included in preservice or graduate programs.
- Continuing education should utilize the theories of adult learning.

The application of andragogical model

For fulfilling the missing of nursing continuing education, the following describes the implication of andragogical assumptions for continuing professional education in nursing field. (Farquharson,1995)

Assumptions	Implications
<ul style="list-style-type: none"> • The need to know 	<ol style="list-style-type: none"> 1. Educators help the learners aware of the "need to know" 2. Educators help the learners discover the knowledge gap. 3. Keeping informed about new developments in their fields and practice setting. 4. Using diagnostic performance assessments tool.
<ul style="list-style-type: none"> • Increasing self-directiveness 	<ol style="list-style-type: none"> 1. Initiating how-to-learn activity. 2. Learners participate in self-diagnosis of learning needs. 3. Learners and educators share in the planning process for learning.

How can adult educators in professional nursing education apply andragogical model in their practice effectively and efficiently? The author summarizes as follows. First of all, adult educators should believe that adult learners are (or intent on) significantly intellectually curious, motivated to learn, willing to take responsibility for their learning, willing to work hard at learning, clear about what they want to learn, and concerned with the practical applications and implications of learning. Secondly, adult educators should understand that the flexibility of the concepts of andragogy has resulted in the term of being applied to learning situations that include discussion format, individualized programmed learning, collaborative development of objectives. Thirdly, institution should provide opportunities for adult educators to practice learner-centered methods. Also adult educators should have chance to learn skills for applying andragogical model. Fourthly, facilitating the professionalization of nursing is one of the mission of nursing continuing education. Nurse educators should consider the fourteen characteristics professionalization as the content of continuing education.

Conclusion

Rachel (1994), reviewing the experimental literature, found that by the existing empirical studies, "advocacy of andragogy as a superior strategy for facilitating adult learning does not seem to be borne out" (p.25). Even though there is statement that "drop the term andragogy as it was seen as a poorly defined and unnecessary theory. It could be replaced by a form of pedagogy" (Milligan,1994, p.22), practitioners will continue to employ methods that work for them.

After briefly exploring the theory of andragogy, The author makes the following conclusion. Andragogy is a practical educational theory that has meaning for many nurse professional educators, not too abstract to practice. Also, this model concerns about producing professionals with lifelong competency. The central role of learners in their own educational process is the best emphasis in this model. Finally, The author would conclude that the way to de-freeze the relationship between learners and educators is to apply the andragogical model.

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