

Models of Teaching Learning Process: Application in Nursing

R Sudha

Introduction

Learning is the process of growth and development whereby the learner acquires a body of knowledge, develops ideas which one makes a part of oneself and develops the ability to use such knowledge in the pursuit of chosen ideals. Learning is a part of education, which brings modification of behaviour. Teaching is a process which facilitates learning by encouraging learners to think, feel and do. Teaching is a system of directed and deliberate actions that are intended to induce learning through a series of activities designed to induce learning (Heidgerken, 1953). Both teaching and learning involve series of actions and activities. A model tries to explain the concepts involved and its interrelationship. It is a visual aid or a picture which highlights the main ideas and variables in a process or a system. Many researchers have tried to put together classroom or school-based models that describe the teaching-learning process. The main models discussed and compared are by Carroll (1963), Proctor (1984), Cruickshank (1985), Gage and Berliner (1992) and Huitt (1995). This article aims at explaining the various models of teaching-learning process and their

Address: No. 1, Elim Nagar II, Main Road, Perungudi, Chennai.

application in nursing.

1. John Carroll's Model

It is basically related to school learning. However, it can be applicable to nursing. Carroll states that time is the most important variable in school learning. A simple equation for Carroll's model is:

School Learning = $f(\text{Time spent} / \text{Time needed})$

Time spent is the function of opportunity and perseverance. Opportunity is determined by the class room teacher; the specific measure is called allotted or allocated time (that is allocated for learning by class room teacher). Perseverance is the students' involvement with academic content during that allocated time. Carroll proposed that perseverance be measured as the percentage of the allocated time during which students are actually involved in the learning process, and was labelled engagement rate. Allocated time multiplied by engagement rate produced the variable which Carroll proposed as a measure of time spent, which came to be called engaged time or time on task

Application of John Carroll's Model in Nursing

Learning = $f(\text{Time spent} / \text{Time needed})$

Time spent = Opportunity + Perseverance.

Opportunity: It depends upon the allocated time for theory and practical for each subject by the Indian Nursing Council, the university, the institution, faculty planning, faculty commitment and the ability to provide comprehensive teaching-learning experience.

Perseverance is the nursing students' involvement with the academic content during that allocated time. It includes the number of days/hours attended, leave taken, quality teaching and learning, motivation, aptitude, attitude, intelligence, memory, immediate need etc.

Engagement Rate = $\text{Time spent in teaching-learning} / \text{Time allocated for teaching and learning}$.

Time on Task = Engagement Rate * Time allocated for teaching and learning

Students can learn if:

They are given enough time to learn the concept and information taught in school and are provided quality instruction. By quality instruction it is meant that the teacher should:

- (1) Organise subject matter into manageable learning units
- (2) Develop specific learning objectives for each unit
- (3) Develop appropriate formative and summative evaluation measures with

- sufficient time allocations
- (4) Plan and implement group teaching strategies with sufficient time allocations, practice opportunities and corrective instructions for all students to reach the desired level of mastery.

2. Proctors' Model

This model emphasises the importance of schools' social climate in the teaching-learning process. The school climate is influenced by a number of factors. The two important factors are student characteristics and the interaction among the individuals involved in the schooling process.

Application in Nursing

Student learning $\propto$ School climate.

Student characteristics + Interaction among the individuals

Student learning or achievement is directly proportional to school climate.

School climate = Student characteristics + interaction among the individuals

Student characteristics include race, gender, economic level and past academic performance, attitudes, norms, beliefs and prejudices.

Interaction includes the input of administrators, teachers and students.

The outcome of learning and student's achievement will go up when the institution has good qualified faculty members, adequate infrastructural facilities, committed students, quality instructions, corrective feedback, and good communication among

students, parents and educators. On the other hand, adverse or negative attitudes on the part of the instructors and administrators will erode student's self esteem and consequently lower the achievement level.

It is hypothesised that there is a cyclical relationship among the variables and changes can be made at any point along the way. These changes will affect the institutional achievement, which will continue to affect the social climate of the school.

3. Cruickshank's Model

It is based on the classroom and teacher. He has taken the concept of Mitzel & Biddle and incorporated it in his model. Mitzel classified variables as Product, Process and Presage.

Biddle classified variables such as school and community contents, formative experiences, class room situations, teacher properties, teacher behaviours - intermediate and long-term consequences.

Applications in Nursing

Product $\leftrightarrow$ Process $\leftrightarrow$ Presage

Product is the outcome of learning on the part of the students. It is the gain in knowledge, changes in attitude and skill attainment in nursing students. Process involves interaction between student and teacher in various contexts such as class room, hospital, community set up. Presage is the teacher's intelligence, experience and success and other teacher characteristics such

as personality, attitude, aptitude, experience, motivation, commitment and sincerity etc. Presage is supposed to affect the process and then, of course, process will affect the product.

Biddle variables include the following:

School and community contents: It includes the philosophy, aims and objectives, climate of the school and environment, facilities available in the institution and in the environment.

Formative experiences : It is the experience gained from the past events by the teachers, administrators, students etc.

Classroom situations: The climate, physical facilities, furniture, control of external noise, adequate lighting, ventilation, seating facilities etc.

Teacher properties : Teacher's personality, attitude, knowledge, experience, communication and assertive skills.

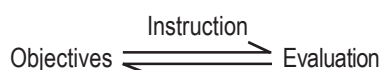
Teacher's behaviour and intermediate and long-term effects: Ability to handle the students of various personalities, problematic students, way of disciplining the students, techniques used to correct the wrong behaviours of the students. Being impartial to all students, maintaining good interpersonal relationship with the students etc.

4. Gage & Berliner's Model

This model is classroom- and teacher-based and centres on the question, "What does a teacher do?" A teacher begins with an objective and ends with an evaluation. Instruction connects objectives and

evaluations and is based on the teacher's knowledge of the student's characteristics and how best to motivate them. If the evaluations do not demonstrate that the desired results have been achieved, the teacher re-teaches the material and starts the process all over again. Classroom management is subsumed under the rubric of motivating students. Gage & Berliner suggest that the teacher should use research and principles from educational psychology to develop proper teaching procedures to obtain optimal results.

Application in Nursing



The teacher starts teaching with the formation of specific learning objectives and based on this, She instructs the students. After the instruction, she evaluates the student. So instruction connects the objectives to evaluation. Evaluation in turn helps them to revise or modify the specific learning objectives and prepare for further instruction or remedial instruction.

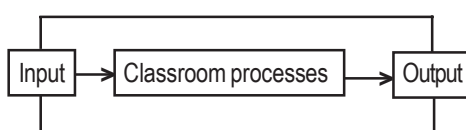
5. Huitt's Model

This model is not only classroom-, teacher- and student-based, but includes additional contextual influences as well. This adds variables related to context, and student and teacher characteristics. Huitt advocates that the important context variables must be considered because our society is changing rapidly. From this perspective, children are members of a multifaceted society, which influences and modifies

the way they process learning as well as defines the knowledge and skills that must be acquired to succeed in society.

His model shows a relationship among the categories of context (family, school, home and community environment), input (what students and teachers bring to the class room process), classroom processes (what is going on in the class room) and output (measures of learning done outside the class room).

Application in Nursing



Input : It is the beginning of teaching-learning process. Input variables include (1) Teacher characteristics such as values, beliefs, knowledge of student, teaching-learning process, communication skills, personality etc. (2) Student characteristics such as study habits, learning style, age, sex, gender, race, ethnicity, motivation, moral, socio-emotional, cognitive, character development and aptitude etc.

Output : It is the end of the teaching learning process. Educators must identify or propose an end result or outcome of teaching and learning. Until the outcome objectives are known, nothing else can be considered. Output measures are gain in knowledge, learning new concepts, reading, language, mathematics etc.

Classroom processes include teacher's behaviour, student's behaviour and other variables such as classroom climate, student

leadership roles etc.

1. Teacher's behaviour includes planning (getting ready for classroom interaction), management (getting the class under control) and instruction (guiding the learning process). Planning activities have a little predictable relationship with student achievement. The other two are moderately related to student achievement. Lack of a strong relationship may be due to teacher inconsistency, which depends on change of the time of day or the characteristics of a particular group of students. The 3 variables such as correct feed-

back by the teacher, reinforcement and level of student teacher interaction are the class room predictors of student's success.

2. Student's behaviour includes planning, preparation for the class, learning readiness, need, preference for learning and learning styles, study habits, age, sex, gender, race, ethnicity, motivation, moral, socio-emotional, cognitive, character development and aptitude etc.

Context variables include mother's education, family expectation, technology at home, facilities in the institution, institutional climate, specific needs of the community, prevailing health problems, demand etc.

Intermediate outcome: Academic learning timer (ALT) is the best class room process predictor of student achievement. ALT is defined as "the amount of time students are successfully involved during the learning of content that will be tested.

Huitt proposes that ALT should be considered as the "vital signs" of a class room. It is influenced by (i) School year - the number of days available for going to school; (ii) Attendance year - the number of days the student actually attends school; (iii) School days - the number of hours the student attends school each day can influence ALT.

Conclusion

Teaching and learning is the fundamental concept of nursing education. The aim of nursing education is to prepare the nurses with head, heart and hand. The knowledge of nursing

is enhanced by teaching and learning. The above mentioned models and concepts can be understood and applied in nursing education to facilitate teaching and learning.

References

1. Sharma SK, Tomar Monica (2005). Teaching and Learning-Learning Process, 1st edn; Isha Books, New Delhi
2. Wadhwa Shalini (2006). Teaching and Learning Methodology in Higher Education, (1st edn, Sarup & Sons, New Delhi
3. Venkataiah N (2004). Educational Technology, 1st edn; APH Publishing Corporation, New Delhi
4. Basavanthappa BT (2003). Nursing Education, 1st edn; Jaypee Brothers Medi-

- cal Publishers Pvt Ltd, New Delhi
5. Heidgerken LE (1996). Teaching and Learning in Schools of Nursing, 1st edn; Konark Publishers Pvt Ltd, New Delhi
6. Ananthakrishnan N, Sethuraman, KR, Santhosh Kumar (2000). Medical Education Principles and Practice", 2nd edn; Alumni Association of National Teacher Training Centre, JIPMER, Pondicherry
7. McIlrath D, Huitt W (1995). The teaching/ learning process: A discussion of models. Valdosta, GA: Valdosta State University
8. Rosenshine B (1995). Advances in research on instruction". *The Journal of Educational Research* 88(5): 262-268
9. Slavin R (1995). Cooperative learning and inter-group relations. In J Banks, ed. Handbook of Research on Multicultural Education; New York: Macmillan



ISO Certified - No. 40304
2008 - 2011

R.D. MEMORIAL COLLEGE OF NURSING

Barkhedhi Kalan, Bhadbhada Road, Bhopal Ph. No. 0755-2696776, 9303133077,

E-Mail: RDMC Nursing @Gmail.com

Rec. by INC, N. Delhi. M.P. State Govt. & Affiliated to B.U. Bhopal (M.P.)

Admission Open : Session 2009-10

M.Sc. Nursing

- Post Basic. B.Sc./B.Sc. Nursing With
- Minimum 01 yr Experience

B.Sc. Nursing

male /female candidate with 10+2 (PCB)
45% age not less than 17 yrs.

Application Form Rs. 350/-, by post Rs. 400/-
D.D. Favour to College

Faculty required: M.Sc. Nursing, M.H.N.,
Paed., C.H.N.

M.Sc.
B.Sc.
Nursing
&
A.N.M.

ANUSHREE COLLEGE OF NURSING

Recognised by Govt. of Madhya Pradesh & Indian
Nursing Council. Affiliated to Rani Durgawati University.
112, Kashodhan Nagar, Near Samdaria Green City
Madhotal, Jabalpur-482002

FACULTY REQUIREMENT

Applications are invited for the following posts immediately:

**Professor / Lecturers / Clinical Instructors with
M.Sc. (Nsg) / B.Sc.(Nsg) / P.C.B.Sc. (Nsg)**

Contact: Principal with Resume / Biodata.

Note: salary is negotiable.

SPECIAL FEATURES OF NURSING COLLEGE:

- Conducting B.Sc Nursing course with Annual intake of 60 seats.
- Conducting Diploma in Nursing (G.N.M.) course with Annual intake of 40 seats.
- Conducting ANM course for 1 ½ year with annual intake of 30 seats.

Course Commences : Dec / Jan.

Apply immediately:

ANUSHREE COLLEGE OF NURSING, Near
Samdaria Green City, Kashodhan Nagar, Madhotal
Jabalpur-482002 P.No.-0761-6541333

Attention Advertisers !

Advertisers of the Admission Notices in NJI for the academic year 2009-2010 for Schools / Colleges of Nursing are required to submit the copy of the Indian Nursing Council (INC) recognition certificate alongwith the advertisement and payment, otherwise the advertisement shall be summarily rejected.

Although we take all possible care to check the veracity of the facts mentioned in the advertisements, the readers are requested to make appropriate enquiries and satisfy themselves before acting upon any advertisement.

- Chief Editor