

TEACHER'S ROLE IN CONSTRUCTIVIST PEDAGOGY

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Paper Received On: 25 APR 2022

Peer Reviewed On: 30 APR 2022

Published On: 1 MAY 2022

Abstract

Present paper gives you an idea about rationales behind investment in computer education, 21st century challenges before teacher, to face these challenges teacher has to play important role in today's education system based on constructivist pedagogy. Teacher has to go through the different phases of computer knowledge development. This paper also focuses on challenging role of teacher to face this constructivist pedagogy.



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Introduction

Introduction of computer has brought revolution in education. In current scenario of education system computer is playing a major role in reconstruction of Indian education system based on constructivist pedagogy. It has emerged a fourth 'R' of education after reading, writing and arithmetic.

Content

Davis and Carlsen (2005) suggests the reason to invest in computer in education can be structured into four categories –

1. To increase competitiveness
2. To increase educational attainment
3. To increase access to education
4. For educational reconstruction computer as a catalyst.

Hawkridge (1990) proposes four rationales for introducing computer in education to reconstruct education system -

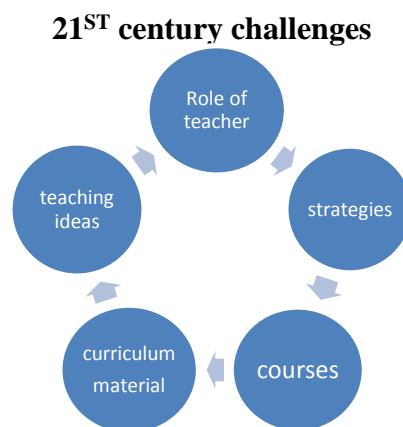
1. **Social rationale:** Children should be prepared to function adequately as citizens in a society permeated with new technologies.

2. **Vocational rationale:** Children should be prepared to function adequately as professional workers in technology society. Although the need for well-prepared professionals is a societal need.
3. **Catalytic rationale:** The use of computer may accelerate another educational innovation like more emphasis in the teaching learning process on information handling and problem solving, and less on memorising facts; this rationale refers to the possibility that schools can be changed for better by new technologies.
4. **Pedagogical:** Computer may improve the instructional processes and learning outcomes.

In today's education system **objectivist pedagogy** is taking the form of **constructivist pedagogy**, in this pedagogy the role of the teacher is not 'the sage on stage' but 'the guide on side' to promote the role of teacher as guide on side, ICT is playing crucial role.

According to George Bernard Shaw (1856- 1950) Rapid advances in Information and Communication technology have created unprecedented opportunities in the field of education and have profound effect on the way teachers teach and how learners learn. Mastering ICT skills and utilising ICT towards creating an improved teaching and learning environments is of utmost importance to teachers in creating new culture.

Inclusion of computer has broken down old barriers of time and space, it provides unlimited possibilities before student as well as teachers. Computer in education generates a set of transformation which modifies all elements which take part in educational processes, organisation curriculum and mainly teacher's role. It is changing fast as a driving force of computer society. Most experts agree that education in 21st century needs to focus sharply on the ability to work in team, to think critically, to adopt to change, to be innovative, creative and familiar with the new computer technology more vital than ever for personal development. In 21st century following are the challenges before education which helps in its reconstruction.

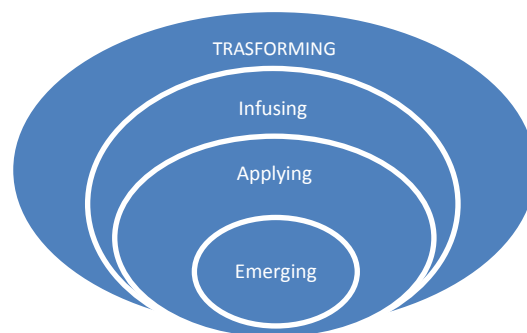


To meet these challenges teacher has to play important role in today's education system which is based on constructivist pedagogy.

Charles Darwin suggests teacher's role that –

“It is not the strongest of species that survive, or the most intelligent, but the ones most responsive to change”

In the framework of this educational landscape teacher's role is as a guide and instrument to assure a comprehensive learning process through computer he/she has to develop accordingly. Teacher has to go through the different phases of computer knowledge development.



Emerging Stage: The major aim at the emerging stage is that teacher should feel comfortable and should feel ease with the new technology and confident in its use.

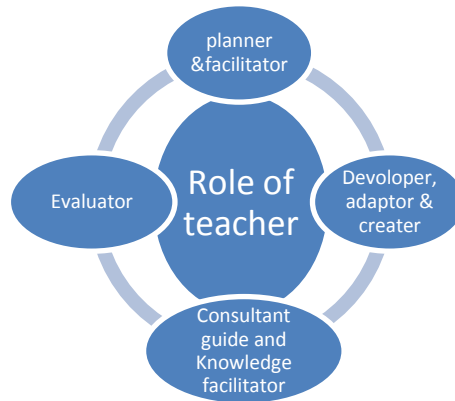
Applying Stage: Once teacher feels reasonably confident with using computers and general applications software (word processing, databases, spreadsheets and communications) they move to the next step where computer is applied in their particular subject areas – languages, natural sciences, mathematics, health sciences, music or art. Ability to decide why, when, where and how computer will contribute to teaching objectives, that are most appropriate to stimulate students learning. Ability to decide when whole class or group, multimedia presentations will be useful. Ability to assist students to find, compare and analyse information from internet and from other sources specific to a subject area.

Infusing Stage: In advancing from applying to infusing computer, teachers incorporate computer into all aspects of their teaching, preparation and management, to improve not their own learning but especially the learning of their students. At this stage, computer enables teachers integrating different knowledge and skills from other subjects into project – based areas.

Transforming Stage: Teachers are required to abandon traditional roles and act as guides and facilitators of knowledge, encouraging at the same time co-operative and collaborative

procedures, furthermore they are expected to be acquainted with the new technological media, that is to become media literate teachers and to be able to manage different learning scenarios in which skills, experience and knowledge have to be complicated.

While going these stages of computer knowledge development in education in today's Indian scenario teacher has to follow following roles –



1. Planner and facilitator of learning situation and context

- **Information consultant:**
 - Provide basic information about the subject to students
 - Search for information material and resources
 - Give support to student to access the information
 - Expert use of computer to search and recover information
 - Adopt a critical position to analyse and adapt to the learning context of communication media.
- **Course planner:**
 - Be aware of individual and group traits of students
 - Diagnosis the training need of students
 - Design the curriculum
 - Select, evaluate and organize the technological media and resources
- **Designer of teaching learning strategies:**
 - Prepare didactic strategies
 - Design learning environment which embody computer
 - Use resources and their didactic implications
 - Integrate computer as elements of circular design

- **Manager:**
- Manage the class development
- Participate in the educational management of the centre
- **Lifelong training:**
- Participate in courses to update the subject, resources and didactic strategies
- Keep contact to other professionals to share experiences
- **Contact with educational community:**
- Keep contact with the school environment

2. Developer, Adaptor and creator of materials and resources

- **Resource facilitator:**
- Search and prepare resources and didactic material
- Structure material
- Organise content
- **Developer, adaptor and creator of material and resources:**
- Designing and developing material in the circular framework and in technological environment
- Planning activities for training in virtual environment

3. Consultant guide and knowledge facilitator

- **Student's motivator:**
- Awaken the curiosity and interest of students towards the subject.
- Motivating students in the realisation activities.
- Encouraging participation and fostering discoveries.
- Providing support and motivation during learning process.
- **Facilitator of content:**
- Carrying out well-structured expositions according to the characteristics of students
- Interacting with groups setting forth and arguing different points of view.

Conclusion

Role of a teacher in computer based constructivist pedagogy is challenging. Teacher education programmes are playing important role in constructing teacher's role to use computer in education. Teachers should require participating in construction of syllabi,

textbooks and teaching learning materials. Such roles require that teacher be equipped with sufficient understanding of curriculum based on constructivist pedagogy through computer..

References

Aggarwal, Y.P and Manisha Mohanty “Effectiveness of Multimedia programmed Learning and traditional method of teaching”.*Indian Educational Review*,Vol34, No2 July- 1998(Pg. 57-66).

Utpal Mahesh: “Teacher Preparation for technology in Education” NCERT – June 2007.

Harish Kumar: *ICT and issues in learning Digital learning 2010*(Pp 1-4).

Mishra, R.C (2007) “Teaching of Information Technology” APH publishing Corporation, New Delhi.103-107.

Patil, V.T.(2002)*Virtual Education- Dimensions of Educational Resources Authors Press, New Delhi.*

Web References

<http://www.unescobkk.org/education/ict/themes/training-of-teachers/guidelines/teachers-role-and-needs/>

<http://www.infodev.org/articles/teachers-teaching-and-icts>

<https://www.google.co.in/search?output=search&sclient=psy-ab&q=Role+of+teacher+in+ICT+education&btnK=#q=Role+of+teacher+in+ICT+education+system+based+on+constructivism>

<http://edtechreview.in/trends-insights/insights/959-advantages-of-using-ict-in-learning-teaching-processes>

<http://www.leeds.ac.uk/educol/documents/00001201.htm>