

REDEEMING TEACHER EDUCATION WITH THE APPLICATION OF CONSTRUCTIVISM

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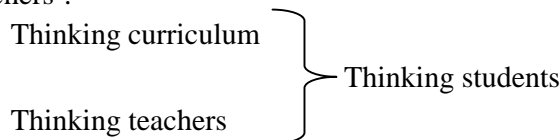
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Abstract

Constructivism in education plays a key role in reforming the current education system at the school level. The reforms in the school curriculum offer the urgent need of reforms in teacher education. Teacher education is at the centre of all education system as it delivers education to train the prospective teachers. Teachers should have a desire of learning and become acceptors and not receptors of the change in order to keep pace with the changing times. Today’s education must focus on constructing knowledge for the application of knowledge. Application of knowledge requires basic life skills which will foster the adaptation capabilities to cope up with ever changing society and their demands. This paper attempts to reflect on specified reform in teacher education with the view of constructivism.

Introduction

Innovation is a key to productivity, growth & prosperity. Innovation involves deliberate application of information, imagination and initiative in deriving greater or different values from resources. In education innovation often results when ideas are applied to satisfy the needs and expectations of the students. Tellez (2007), in reviews of major reforms efforts, finds that the “importance of constructivism in educational theory and research cannot be underestimated.” We are experiencing the reforms in educational system at school level with the application of constructivism. Continuous comprehensive evaluation is also the major part of this reform. Inclusion of concept map, enriched content, interdisciplinary approach, activities for experiential learning, project work, learning with group, student centred teaching-learning are some of the features of applying constructivism in education. Efforts have been made to train the teachers at primary level with respect to the changing scenario of teaching aspects of constructivism & continuous comprehensive evaluation. As pre-service training programme is concerned, there is less emphasis on constructivist approach. This demand for training the pre-service teachers to become ‘thinking teachers’.



Constructivist teacher has to perform different roles as compared to the traditional teacher. As Marlowe & Page, (1998) stated, “Constructivist teachers ask rather than tell, they



model rather than explain, and they work as hard as possible to get out of the limelight so that their students may shine.”Roth & Roychoudhury, (1994) also emphasized the specifications in teacher’s role as “Constructivist teachers view themselves as gardeners, tour guide, learning counselors, or facilitators rather than as dispensers of information or judges of right and wrong answers.” So in brief we can say that the constructivist teacher has to play multiple roles at a time. This we can glance as following.

Constructivist teachers

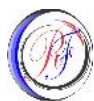
- Encourage and accept student autonomy and initiative.
- Use raw data and primary sources along with manipulating interactive and physical materials.
- When framing tasks, use cognitive terminology like classify, analyse, predict and create.
- Allow student responses to drive lessons, shift instructional strategies, and after content (teachable moment).
- Inquire about students understandings of concepts before sharing their own understandings.
- Encourage students to engage in dialogue, both with the teacher and with one another.
- Encourage student inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of one another.
- Seek elaboration of initial student responses.
- Engage students in experiences that might be contradictory to their hypotheses, and then encourage discussion.
- Allow wait time and considerate for students who process differently.
- Provide time for students to construct relationships and create metaphors.

Considering the specific change in the role of constructivist teacher and the competencies needed for developing these roles, reformation should be done in curriculum of teacher education. For this purpose quality of teacher education must be maintained. Quality of teacher education not only depends on professionally sound and relevant curriculum, but also on the way of implementation of the curriculum. Curriculum of teacher education and its implementation should be focussed in the light to develop specific competencies needed for constructivism. Here author developed a course to train and guide student- teacher for effective practices of constructivist teaching – learning at school level.

This course curriculum for teacher education specifically focuses on ‘hands on activities’ and ‘minds on activities’. These activities include the following categories.



There should also inclusion of action research for pedagogic innovation with respect to commingle the roles of teacher, curriculum developer and education researcher. As this



research competency will help teacher to diagnose, accept, face and remediate the challenges of implementing the constructivism in practice.

Course Name: Constructivist Teacher Education.

Objectives

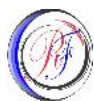
- To become competent and committed teacher willing to perform the identified tasks for effective learning of students through constructivist approach.
- To use competencies and skills needed for effective learning of students and inculcate thinking and scientific temper among the students.

Coursework

The coursework for constructivist teacher education is divided into two parts as theoretical work and practical work.

Part I – Theory

Sr. No.	Content/syllabus	Duration	Evaluation
Unit 1	Understanding constructivism. 1.1. Concept, nature, scope, need & importance of constructivism. 1.2. Basic principles of constructivism 1.3. Pathways/ types of constructivism, components of constructivism.	10 hrs	Interactive lecture, seminar & discussion.
Unit 2	Constructivism as an approach of teaching & learning. 2.1. Constructivism as a theory of learning. 2.2. Philosophical & psychological base of constructivism. 2.3. Constructivist student & teacher- relations, their roles, competencies need.	10 hrs	Library work, interactive lecture, seminar, group discussion.
Unit 3	Essentials of constructivism. 3.1. Sensation, perception, imagination, concept formation, mind mapping. 3.2. Thinking types & tools of thinking. 3.3. Developing thinking, reasoning, problem solving, decision making & creativity. 3.4. Mental processes – assimilation & accommodation process in learning. 3.5. Evaluation – process & product evaluation, methods of evaluation & its application.	14 hrs	Interactive lecture, seminar, group discussion, workshop. Tasks or activities for brain storming.
Unit 4	Pedagogy of constructivism. 4.1. Constructivist approach of teaching – 7 E's model of planning of lesson. 4.2. Co-operative & collaborative teaching learning methods.	12 hrs	Interactive lecture, seminar, group discussion, workshop Group work &

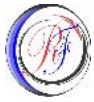


	4.3. Project method, heuristic method, field experiences, inquiry training, concept formation, various models of teaching.		project work. Lesson design task.
Unit5	Constructivist classroom management. 5.1. Management of resources for learning. 5.2. Management of learning experiences of students. 5.3. Management/ integration of ways of learning (methods, strategies, activities – group and individual). 5.4. Management of evaluation techniques to assess student learning (self evaluation, student evaluation – individual & group evaluation)	14 hrs	Interactive lecture, seminar, group discussion, workshop Group work & project work.
	Total	60 hrs	

Part II – Practical work

Pre phase			
Objective: To know the students, subject context & methodology. To know the resources & classroom needs.			
Sr.no.	Description	Practical	Evaluation
1.	Know your student. Learning styles, previous knowledge, abilities, psycho-social context, learning needs	Collect student data, make personal files & records.	Check list. Analysis of student portfolios/ records.
2.	Know your subject context & methodology. Analysis of content, multiple perspectives of content & its enrichment. Strategies & methods of teaching & learning.	Plan & construct student centred lesson considering individual differences, their learning needs & content specificity.	Check list including aspects & principles of constructivist lesson.
3.	Know your resources & classroom needs. Traditional & technological resources, their availability. Classifying the individual & group needs of resources.	Plan & organise activities (individual & group) for learning. (Design tasks)	Check list, rating scale, self evaluation rubric. Group evaluation through rating scale.

Active phase			
Objective: Creation of effective classroom environment conducive for learning.			
Sr.no.	Description	Practical	Evaluation
1.	-Effective implementation of activities /methods/strategies. -Use of language for effective communication.	Conduct student centred constructivist lesson including 7E's of constructivism.	Check list, rating scale, self evaluation rubric. Group evaluation through rating scale.



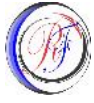
	<ul style="list-style-type: none"> -Managing classroom processes & interactions. -Providing facilities & resources as per student need. -Implementing 7E's of constructivist learning process. -Encouraging students for thinking decision making. - Guiding students whenever necessary. 	Record the observation to evaluate student learning.(simulation & practice lesson)	Observation schedule,.
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Post phase			
Objective: Reflection on the constructivist teaching learning. Evaluation & reformation of the process for further improvement.			
Sr.no.	Description	Practical	Evaluation
1.	<ul style="list-style-type: none"> -Receiving feedback with respect to the process of learning & acquisition of knowledge. - Reflecting own teaching learning methods with respect to the planning, student learning evaluation & overall effect. 	<ul style="list-style-type: none"> -Enlist the challenges faced at the implementation of activities pre decided in the lesson plan. -Collect the feedback from students with respect to the needs of learning & process of acquiring knowledge. - Record the conclusions received after reflecting teaching learning process. 	<ul style="list-style-type: none"> Check list, rating scale, self evaluation rubric. Group evaluation through rating scale.

The duration of course work is about 3-6 months as the specific time needed for practising the skills and ways to develop the same will differ with respect to the individual teacher trainee and classroom situations. Again evaluation of the performance of teacher trainee will also differ in some respects with situations as there is flexibility in teaching - learning process as per student needs.

Conclusion

To accept the change and to become a part of reformation process is necessary for adopting with innovation. This constructivist teacher education will be beneficial to the student- teacher, teacher- educator, education experts, researchers and ultimately the students. Yet this will not be enough to say the ultimate solution for training the teachers, there must be lifelong education as constructivism always focus on learning as constructing knowledge by



oneself. There is nothing permanent except change and hence we should see ourselves as lifelong learner.

References

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