

**Title : MEANING MAKING AND SELF-EVALUATION**

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## **ABSTRACT**

This paper includes constructivist pedagogy and constructivist learning and their definitions and principles. Regarding the evaluation in the constructivist approach , self evaluation and portfolio assessment are emphasized. Integration of the principles of constructivist learning and portfolio assessment is attempted.

## **MEANING MAKING AND SELF-EVALUATION**

If we examine the history of education in India, we can see lots of developments and advancements in the field of education. Technological and scientific developments created many changes in education. Education becomes more and more sophisticated and now we can learn everything with our finger tips. This advancement also affected our formal educational systems also. If we examine from the primary stage of schooling to higher levels, the roles of teachers and students and their activities are changed in a positive way.

Education or schooling is closely related to learning theories. Theories of learning and behaviour provide a clear-cut , concise statement of what we know about how people learn. Learning theories can be classified into three types viz, behaviourism, cognitivism, and constructivism. Now in our schools, we are following an approach named constructivism. According to Fosnot (1996), an educator is expected to understand the educational theory or theories behind any given instructional framework to gain success in reform efforts.

### **PHILOSOPHICAL PERSPECTIVE OF CONSTRUCTIVISM**

A philosophy of education is a statement of the values, purposes, and reasons for the entire educational practice. People who are trying to improve education without examining philosophical assumptions ultimately produce unworthy ideas, superficial systems, and culturally irrelevant fashion in education. So all educational practice demands a sound philosophical base and its systematic implementation to attain the educational goals. This statement reveals that teachers should have a clear perspective about the philosophy underlying the educational practice.

Philosophy of constructivism is evolved from dissatisfaction with traditional western theories of knowledge. Objectivist epistemology and positivism upholds that truth and meaning are inherent in objects and independent of consciousness. But constructivism postulates that knowledge cannot exist outside our minds, truth is not absolute and knowledge is not discovered but constructed by

individuals through experiences. Crotty (1998); Fosnot(1996); Hendry, Frommer & Walker(1999 )support this view.

Constructivism posits that learners construct their own knowledge from their experiences and each person makes an internal construction of reality ( Merriam & Caffarella, 1999). Constructivism does not claim that the world does not exist, but what the world is ultimately our own construction (Taylor, Merriam & Fiddler, 2000.) Novak(1998) suggested that education must understand and engage the learners in existing relevant knowledge, both valid and invalid ideas. Thus constructivism provides each and every individual with the opportunities to create and construct new ideas and understand the existing reality with the help of their own experiences. The teacher should consider this fact while planning and teaching the lesson. This will lead to the enhanced involvement on the part of the learner. Meaningful learning rests upon the constructive integration of thinking, feeling and acting leading to commitment and responsibility.

## **EPISTEMOLOGY**

- 1 Knowledge is physically constructed by learners who are involved in active learning.
2. Knowledge is symbolically constructed by learners who are making their own representations of action.
3. Knowledge is socially constructed by learners who convey their meaning making to others.
4. Knowledge is theoretically constructed by learners who try to explain things they do not completely understand ( Fosnot,1996 ).

## **DOMAINS OF CONSTRUCTIVISM**

Constructivism is not a unified theory, it involves plurality and multiple perspectives. According to Matthews (2000), the educational literature identifies eighteen different forms of constructivism in terms of methodological, radical, didactic and dialectical considerations. Some others place all the forms of constructivism under three headings viz.

1. Social constructivism

2. Psychological constructivism

3. Radical constructivism

All these three categories share a common epistemological assumption that knowledge or meaning is not discovered but constructed by the human mind (Richardson, 2003).

**Social constructivism** – This view focuses upon the ways in which power, the economy and political and social factors affect the ways in which groups of people form understandings and formal knowledge about their world.

**Psychological constructivism** – This perspective relates to a developmental or learning theory and suggests that individual learners actively construct the meaning around phenomena and these constructions are idiosyncratic, depending partly on the learner's background knowledge. If the individuals make meaning in a group, all of them have the chance to share and criticize the views of their own and others. If there is a consensus about the meaning, it becomes the formal knowledge.

**Radical constructivism** – This approach assumes that external reality cannot be known and that the knowing subject or person constructs all knowledge, ranging from everyday observations to scientific knowledge. This approach is introduced by Ernst von Glasersfeld (1999). In this view knowing inevitably reflects the perspective of the observer. It is also impossible to judge knowledge as an ontological or metaphysical reality. Knowing without metaphysics is possible; meaning exists in the realm of the experiential world, not ontologically.

Gergen (1995) provided an explanation of radical constructivism by using the terms exogenic and endogenic. He distinguished two categories of knowledge, exogenic means word centered and endogenic means mind centered. Exogenic tradition embraces a dualism ie, the existence of an external world against a psychological world. Each and every individual can acquire knowledge through the accurate representation of the external world. Mind serves the function of a mirror. Endogenic view emphasizes the human beings' intrinsic capacities for reason, logic and conceptual processing. Endogenic thinker understands the world as they conceived. Radical constructivism's endogenic view of knowledge emphasises the

mental processes of individuals and the way in which they construct knowledge of the world.

Moshman (1982) classified the perspectives on constructivism as endogenous, exogenous and dialectical.

Perspectives on constructivism	Emphasis
Endogenous	Individual's knowledge construction based on previous knowledge and experiences.
Exogenous	Role of environment or social context in knowledge construction.
Dialectical	Relationship of various types of dynamic interactions between the individual and the environment.

### **CONSTRUCTIVIST PEDAGOGY**

Now we are living in a post-modern period. Post modernism is a response to modernity- the criticism of modernism. Post modernism is against one-fits-for all gigantic approaches and panacea systems. However post modernism has changed the world a lot and the mainstream effect of post-modernism in the education field is constructivism. Constructivist approach of teaching is widely accepted and prominent one in the field of education. During the past two decades, many discussions are conducted in this approach. Theoretical backing of the constructivism can be traced to the work of Dewey, Kelly, Montessori, Piaget, Bruner and Vygotsky. Concept of teacher, learner, method and evaluation in post-modern frame is different from the traditional one. Traditional education views the student as a passive listener, provides the student with a predetermined list of objectives, teacher centered approaches to attain these objectives and pre-determined, teacher centered evaluation etc. But in constructivism, learner characteristics and choices are important in learning and instruction. Individual and subjectivity are the key components of the new paradigm.

Constructivism has implications for pedagogical theory and research as well. This encouraged educators to construct constructivist pedagogy. The field of cognitive science forms the foundation of constructivist pedagogy and it is especially enriched by the ideas of John Dewey, and William James; work of Jean Piaget; and the socio historical work of Lev Vygotsky, Jerome. S Bruner and Ernst von Glasersfeld ( Fosnot 1996; Kivinen and Ristele 2003 ). Its genesis can be traced as far back as the eighteenth century philosophers Vico and Kant.

**Constructivist pedagogy** -Richardson (2003) defined constructivist pedagogy as the creation of classroom environments, activities and methods that are grounded in a constructivist theory of learning, with goals that focus on individual student developing deep understandings in the subject matter of interest and habits of mind that aid in future learning.

Pedagogy is closely related to learning. Former is meant for the teacher and latter for the learner.

## **LEARNING IN CONSTRUCTIVISM**

**Constructivist learning** - Fosnot (1996) provided an explanation of constructivist learning as a self-regulatory process of struggling with the conflict between existing personal models of the world and discrepant new insights, constructing new representations and models of reality as human meaning-making venture with culturally developed tools and symbols and further negotiating such meaning through co-operative social activity, discourse and debate.

Theory of constructivism proposes that learning is neither a stimulus – response phenomenon nor a passive process of receiving knowledge; but it is an adaptive activity requiring building conceptual structures and self-regulation through reflection and abstraction, learning is an active process of knowledge construction influenced by how one interacts with and interprets new ideas and events - Lambert et al., 1995; Maclellan & Soden, 2004; Glasersfeld, 1995.

Constructivist theory is more descriptive than prescriptive. It does not prescribe rigid rules or procedures for designing a learning environment- Wasson, 1996. Because the constructivist learning emerged from cognitivism, it shared several similarities with cognitive learning theories. According to Glasersfeld (1995) what

distinguishes constructivism from cognitivism is that "the knowledge does not and cannot have the purpose of producing an independent reality, but has an adaptive function".

## **EXPERIENTIAL LEARNING**

In educational circles, "we learn by examples and precept." Distortion of this principle will result in warped practice. The following statements depict the best way to learn to teach.

1. Do as you are told.
2. Do as you have seen.
3. Do as you have done.

Much of the socialized behaviour has its origin in these three processes.

According to Driscoll (2000), constructivists are interested in having learners identify and pursue their own learning goals and these goals promote their self-regulation in learning. Constructivism emphasizes such kind of knowledge that is created by the individuals from their experiences. So constructivism demands provision of rich and real experiences. Driscoll (2000) opined that learning can take place in the context of meaningful activity, leads to a lasting change in students' comprehension. According to Maclellan & Soden (2004) constructivist perspective posits that knowledge is not passively received from the world or from authoritative sources but constructed by individuals or groups making sense of their experiential worlds. Constructivism views knowledge as temporary, non-objective, internally constructed, developmental and socially and culturally mediated (Fosnot, 1996). There occurs an inter play of existing knowledge and beliefs and new knowledge and experiences.

Constructivism views learners as intellectually generative individuals and instruction as a process of developing thinking in learners. Also the learners' intellectual authority resides in neither the teacher nor the resources, but in the discourse facilitated by both teachers and learners (Maclellan & Soden, 2004).

From such discourses, each learner generates their own ideas according to their thinking pattern. According to Kamii, Manning & Manning (1991) individuals bring past experiences and beliefs, as well as their cultural histories and world views into the process of learning when they construct knowledge internally by interacting with environment. Fosnot (1996) emphasized that constructivist teaching provides



learners with concrete experiences in which learners can look for patterns, construct their own questions, and structure their own models, concepts and strategies and meaningful learning will be the result. Autonomy, mutual reciprocity of social relations and empowerment characterize a constructively conducted classroom. All these ideas emphasize the importance of experiences in the constructivist learning.

### **THE PRINCIPLES OF THE CONSTRUCTIVIST LEARNING**

- Learning is an active process.
- Learning is an adaptive activity.
- Learning is situated in the context in which it occurs.
- Knowledge is not innate, passively absorbed or invented but constructed by the learner.
- All knowledge is personal and idiosyncratic.
- All knowledge is socially constructed.
- Learning is essentially a process of making sense of the world.
- Experience and prior understanding play a role in learning.
- Social interaction plays a role in learning.
- Effective learning requires meaningful, open ended, challenging problems for the learner to solve ( Boethel & Dimock, 2000& Fox, 2001 ).

### **GENERAL PRINCIPLES OF CONSTRUCTIVIST LEARNING FOSNOT (1996)**

- Learning is not the result of development; learning is development.

It requires invention and self-organization on the part of the learner. Students raise their own questions, generate their own hypotheses and models and test them.

- Disequilibrium facilitates learning

Challenging open-ended investigations in realistic meaningful contexts will allow learners to explore and generate many possibilities, whether affirming or contradictory. Contradictions need to be illuminated, explored and discussed.

- Reflective abstraction is the driving force of learning.

As meaning-makers, human beings seek to organize and generalize across experiences in representational form.

- Dialogue within a community engenders further thinking.

Classroom should be a "community of discourse, engaged in activity, reflection and conversation". Learners are responsible for defending, proving, justifying and communicating their ideas to the classroom community. Ideas are accepted as truth only as they make sense to the community.

- Learning proceeds toward developing structures.

As learners struggle to make meaning, they undertake progressive structural shifts in perspectives. Such learner-constructed, central-organizing ideas can be generalized across experiences and they often require undoing or reorganizing earlier conceptions.

In the light of these evidences the arrived conclusion is that constructivism treats each and every learner as individual meaning makers. Constructivist classroom offers lots of opportunities for children to express , explore and verify their ideas both in and outside the classroom. Each learner becomes a discoverer. Teacher is more and more a facilitator than a dictator. Each learner is allowed to use their own strategies to make meanings. Constructivist teacher ie, the facilitator can challenge students to justify and defend their positions and beliefs so that they can change their conceptual framework if they are not correct.

## **CONSTRUCTIVIST EVALUATION**

What kind of evaluation is needed in the constructivist classrooms?  
Who will judge the quality of the ideas constructed by the learners?

If the constructivism provides the learners with lots of opportunities to make meaning, the evaluation also should be made by the learners themselves.

Through self-assessment and correction each learner can evaluate his or her process of meaning making. There teacher should be a facilitator and should ask thought provoking and challenging questions to refine and fix the students' position.

#### **A STRATEGY FOR SELF EVALUATION**

The author developed a strategy for self – evaluation that can be used in the constructivist classrooms. This will help the learners to become self evaluators.

1. Fixing of subject matter to be assimilated by both facilitator and learners through discussions , debate, brain storming etc.
2. Pooling the previous knowledge of all learners in groups. Facilitator's positive interference to check the accuracy and relevance of the ideas is necessary.
3. Processing of ideas by each and every learner through their own strategies.
4. Expressing the views and findings by every learner. Everyone clarify their stance through the discussion with facilitator and peers and change position if needed.
5. If the learners within the group come to an agreement about the description of the idea, these ideas become formal knowledge. Thus the constructivist classroom makes the learners self-evaluators.

This view can be supported by the explanation provided by Driver *et al.*, (1989); Glasersfeld (1995); Fosnot (1996); Mcleod (2003); Richardson (2003).

Driver and colleagues (1989) suggested a constructivist teaching sequence including different phases like Orientation, Elicitation of ideas, Restructuring of ideas, Application of ideas and Review change in ideas. Phase of restructuring upholds the process of self-evaluation by learners.

According to Glasersfeld (1995), each individual construct meaning, knowledge and conceptual structures differently. So the teachers should be cognizant that students may view curricula, text books, didactic props differently than they do. Accordingly, teachers should not attempt to transfer conceptual knowledge to students through words; instead they should be concerned with how learners understand the process of knowing and how they justify their beliefs. This view is supported by

McLeod (2003). Process of individual meaning making and its justification demand self-evaluation.

Richardson (2003) identified several principles of constructivist pedagogy. These principles suggest that teacher first recognizes and respects the students' backgrounds, beliefs, assumptions and prior knowledge; provide abundant opportunities for group dialogue to foster shared understanding of the topic under study; establish a learning environment that encourages students to examine, change and even challenge their existing beliefs and understandings through meaningful, stimulating and relevant instructional tasks; help students develop meta-awareness of their own understandings and learning processes; and introduces the formal domain of knowledge into the conversation through a sort of loosely structured instruction and the use of technological tools such as Web-sites. These principles also emphasize self-evaluation by the learners themselves.

But the question is , what is happening in our actual classroom situations. We are witnessing that the educational philosophy is becoming more and more constructivistic and individualistic in today's world. But we are adopting classroom situations and working habits from old paradigm. By constructivism, instructional design is getting more focused on small groups, individuals and learner characteristics, progressively. And also instructional designers and teachers began to use individual portfolios for measurement and evaluation.

## **PORTFOLIO ASSESSMENT**

In a constructivist classroom teachers can effectively use portfolio assessment.

Elbow ( 1994 ) states that ‘a portfolio is nothing but a folder, a pouch-an emptiness: a collection device and not a form of assessment...but portfolios lend themselves to assessment.

Portfolio assessment can be explained as a purposeful, multifaceted process of collecting documentation of children's growth, progress, and effort over time.

The portfolio is a reflective document rather than a simple list of student's teaching and learning experiences. It is a reflection of the competencies that the student is required to demonstrate in the course or module. The student, as

part of their “ collect, select and reflect process ”, must use processes of reflection, analysis, synthesis and evaluation. The student takes the data from the teaching and learning experiences, and then analyzes and reflects on the learning.

### **THE CHARACTERISTICS**

There are several criteria that should keep in mind while using portfolio assessment. The portfolio must ,

- be clearly linked with instructional objectives. If the two are not connected, the portfolio is just an accumulation of work with little assessment value or future instructional value.
- be an ongoing assessment system that allows teachers to observe the continuous, dynamic movement of children's growth. Teachers must avoid discontinuous or static methods of assessing children's skills and abilities.
- avoid becoming a teacher-manufactured document. To analyze growth and development , both children and their families must have a voice in inclusion of items.
- be performance based; emphasize purposeful learning; be ongoing in all cultural contexts of school, home, and community; and celebrate, support, and encourage a child's development and learning.

### **THE PRINCIPLES**

1. Teachers and administrators must plan for and be trained in the portfolio approach to assessment.
2. Sufficient resources of time and energy must to be allocated to support portfolio assessment.
3. Teachers must work as a team to plan for the implementation of portfolio assessment.
4. Parents and the public need to understand portfolio assessment.
5. The teacher’s role is vital as a facilitator of the portfolio assessment.
6. Documentation of the processes and student achievements, as well as of the analyses of teaching and learning experiences is critical.
7. Portfolio assessment is a developmental process for both teachers and students.
8. Portfolio assessment provides a new perspective on learning for both teachers and students.

9. Self-evaluation of learning is an integral part of the portfolio process.
10. Collecting, selecting and reflecting on work is central to the portfolio process.

### **ROLE OF THE TEACHER**

Teacher should be a “facilitator” and should encourage each and every student to use portfolio and demonstrate their learning both formally and informally. Teacher has to perform the role of a “critique” on student performance and should encourage students to become critiques and self-evaluators. Teacher should help students to work collaboratively and ensure group discussion. This will promote group dynamics, mutual trust, self-confidence, and motivation among students. If the teacher is ready to perform these roles effectively, the product will be a quality portfolio.

### **THE STRUCTURE**

The most common structure for a portfolio is an A4-sized file that has clear pockets to accommodate all items presented for assessment. Another consideration might be for a whole-punched notebook where students can add and take out pages, and also attach clear pockets to hold videos. It is likely that the electronic portfolio will become the norm. Student might need help initially in learning how to organize and present their evidences.

### **THE COMPONENTS**

An example of the components of the portfolio is as follows:

- Module outline, criteria, rubrics and marking scheme
- Checklist of items to include
- Self-evaluation
- Reflective statements and evidence.

#### ***Module Outline ,criteria, rubrics and marking scheme***

This includes the module outline given by the teacher at the commencement of the course. This must include all assessment information for the students to know what is expected of them. This must include all the criteria, rubrics, grade descriptors and marking scheme.

#### ***Rubrics***

In contrast to the most traditional forms of testing, portfolio assessments do not possess clear-cut right or wrong answers. It provides degrees to which a person is successful or unsuccessful. Thus, one needs to evaluate the performance in a way that will allow one to take those varying degrees into

consideration. This can be accomplished by creating rubrics for each of the criteria for each level of performance.

A rubric is a rating system by which teachers can determine at what level of proficiency a student is able to perform a task or display knowledge of a concept. With rubrics, one can define the different levels of proficiency for each criterion. Like the process of developing criteria, one can either utilize previously developed rubrics or create one's own. When using any type of rubric, one needs to be certain that the rubrics are fair and simple. The performance at each level must also be clearly defined and accurately reflecting its corresponding criterion (Airasian, 1991; Popham, 1995; Stiggins, 1994).

### ***Grade descriptors***

Students need prior information about how judgments of their work will be made. Formative feedback for both formal and informal assessment from the outset will assist the student to attain the acceptable quality.

### ***Checklist***

The checklist should be provided by the teacher. The purpose of the checklist is to ensure that all relevant material and information has been included, and that an appropriate format for the portfolio has been presented.

### ***Self-evaluation***

The portfolio documents the students' achievements over an extended period, and reflects careful, critical self-evaluation. A self-evaluation should be included. The information included in the student's self-evaluation will provide the teacher with important information concerning the student's teaching and learning experiences.

### ***Reflective statements and evidence***

For each competency the student must provide a reflective statement that is supported with evidence from his or her learning and teaching experiences. The reflective statement, together with the evidence selected by the student, is used to assess whether the student has demonstrated competence. The student can select evidence from a range of materials in their learning or teaching contexts to support the reflective statement for each competency. Items they can select include , research papers, assignments, lesson plans, schemes of work, video clips, photographs, samples of students' work, and self-evaluations. As the technology continues to improve it is recommended that the portfolio can largely be in electronic format.

### ***Writing reflective statements***

Students will need to be taught how to develop reflective practice, and how to select valid, reliable and adequate evidence to support claims. The reflective statement for each competency should be written clearly and should be a maximum length of one A-4 page. For example, if the module has ten competencies, then the maximum number of pages included in the portfolio would be ten plus one piece of evidence for each reflective statement, i.e. these statements will focus on self, task and impact.

The reflective statement provides an opportunity for the student to analyze and illustrate how he or she has attained a competency. To do this the student must attach concrete evidence from his or her teaching and learning environment. The student must provide one piece of evidence to support the claims made in the reflective statement. For example, to support their competency in drawing, students can include:

- A collection of pictures drawn by her or him.
- A video clip that demonstrates the act of drawing by her or him.

### **CHALLENGES**

Portfolio is a new concept for many students. Therefore, thorough explanation and clear guidelines are needed to implement portfolio assessment in our classrooms.. Teachers can raise student awareness about the use of portfolios for assessment in the following ways.

- With the help of teaching aids such as videos and power point presentation, provide an outline, the background, the theory, the processes and procedures involved in the use of portfolio to the students. Provide the students with sample portfolios to help them understand the format, evidence and standards required.
- Provide students with appropriate guidelines that make the expectations of Portfolio use explicit. Provide an outline about the design of the portfolio, the competencies the student is required to demonstrate, and the indicators of attainment that the student may choose to include in his or her portfolio.
- Share the assessment process with the students by discussing the criteria to be used. Clarify the grade descriptors and share exemplars with students to help them understand the standards required. Provide students with feedback for



formative purposes during stages of development of the portfolio. Use progress maps to indicate clearly where students are demonstrating competence and where they need to develop competence.

- Explain the developmental nature of the portfolio and the need to collect baseline data. For example, facilitate student video recording of important stages of their development. Provide students sufficient time to reflect, self-evaluate, and practice their presentations.

## **INTEGRATING THE PRINCIPLES OF CONSTRUCTIVIST LEARNING AND PORTFOLIO ASSESSMENT**

According to the principle of constructivist learning , learning is an active and adaptive activity. Knowledge is not innate, passively absorbed or invented but constructed by the learner and the principle of portfolio assessment states it is a developmental process for both teachers and students. Learning is an active process which is enriched by the portfolio use because it helps the learner to think metacognitively about their learning. It will encourage the learner to construct knowledge systematically and thus leads to development.

According to the principle of constructivist learning, effective learning requires meaningful, open-ended, and challenging problems for the learner to solve and the principle of portfolio assessment states that teachers' role is vital as a facilitator and teachers must work as a team to plan for and trained in the implementation of portfolio assessment. Sufficient resources of time and energy must be allocated to support portfolio assessment effective. Teachers should energetically embrace the individual difference in learning styles and pace of every learner. Teacher should assess, evaluate, manage, organize, and use information for problem – solving, decision making, and critical thinking. While working as a team, the problem- solving process will improve their skills as a teacher, and that working together will also improve their and their students' communication and planning skills. This effective planning will help in proper allocation of time and energy for learning and portfolio process. This along with training in portfolio assessment to teachers will result in effective learning.

According to the principle of constructivist learning , all knowledge is socially constructed and social interaction plays a role in learning and the principle of portfolio assessment states that parents and public need to understand portfolio

assessment. It provides a new perspective on learning for both teachers and students. Students, principals, teachers, and parents should work together to make portfolio assessment much more successful. The responsible educators who are able to demonstrate should clarify the values of both what students are doing and what teachers are learning from it. If the parents are provided with an opportunity to see students' challenging and engaging work, they will get information about how their children are developing. This will form a strong foundation for social and constructivist learning because students have to learn tremendously with help of the community.

According to the principle of constructivist learning, all knowledge is personal and idiosyncratic. Learning is a process of making sense of the world. Experiences and prior understanding play a role in learning and the principle of portfolio assessment states that self – evaluation of learning is an integral part of portfolio process. Since the learning is individualistic in constructivism portfolio assessment provides a strong element of self- evaluation both for teachers and students. Each and every learner construct knowledge based on their previous knowledge, so self – evaluation is necessary for assessment. Writing the reflective statements will increase the authenticity of self – evaluation because teachers can verify it. Students develop greater understanding of their particular learning style when they self- evaluate and reflect on the evidence they have selected for inclusion in the portfolio to demonstrate their competence. Ability to self- assess will provide a constructive feedback to learners and this is not only an assessment process but also a learning process.

According to the principle of constructivist learning, learning is situated in the context in which it occurs and the principle of portfolio assessment states that collecting, selecting, and reflecting on work is central to portfolio process. Also documentation of the process and student achievements as well as analyses of teaching-learning experiences is critical. Learning is contextual in constructivism. The student has to collect the evidences from the situation and select the best pieces from it and reflect on it to demonstrate their competence. Teachers should believe that each student will discover and learn many things for themselves, evaluate the path of their journey and should analyze their own path to make the learning more successful. Result will be the more self-regulated teachers and learners. It is inherent in the teachers' job to try to accept and welcome all students, yet also to try to reject those

who are not worthy. Documentation of students' works by the teachers will help to this acceptance and rejection.

In a constructivist classroom, each and every meaning maker should be the custodian of portfolios. Logic must be individual evaluation for individual instruction and self-evaluation for self-learning. These individual portfolios together with the continuous and comprehensive evaluation by the teacher will certainly help to accomplish the goals of constructivism.

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