

CLASS : M. Ed 2 semester, COURSE CODE:6GESDE0206, SUBMITTED BY: Dr. RAJINDER KOUR

UNIT-3

Subunit:-3 Need and importance of competence based education in science

Introduction :- The search for better teaching strategies will never end. As a school leader or head, we probably spend too much of time thinking about how to improve the learning experiences of students that pass through the school throughout the years i.e What they learn and How they learn it will become a part of these students as they grow, and helping them become successful adults. The way to achieve this goal is **Competence Based Education**.

Competence based education gives a clear focus on preparing students for the next stage of their life, whether it be college or a career.

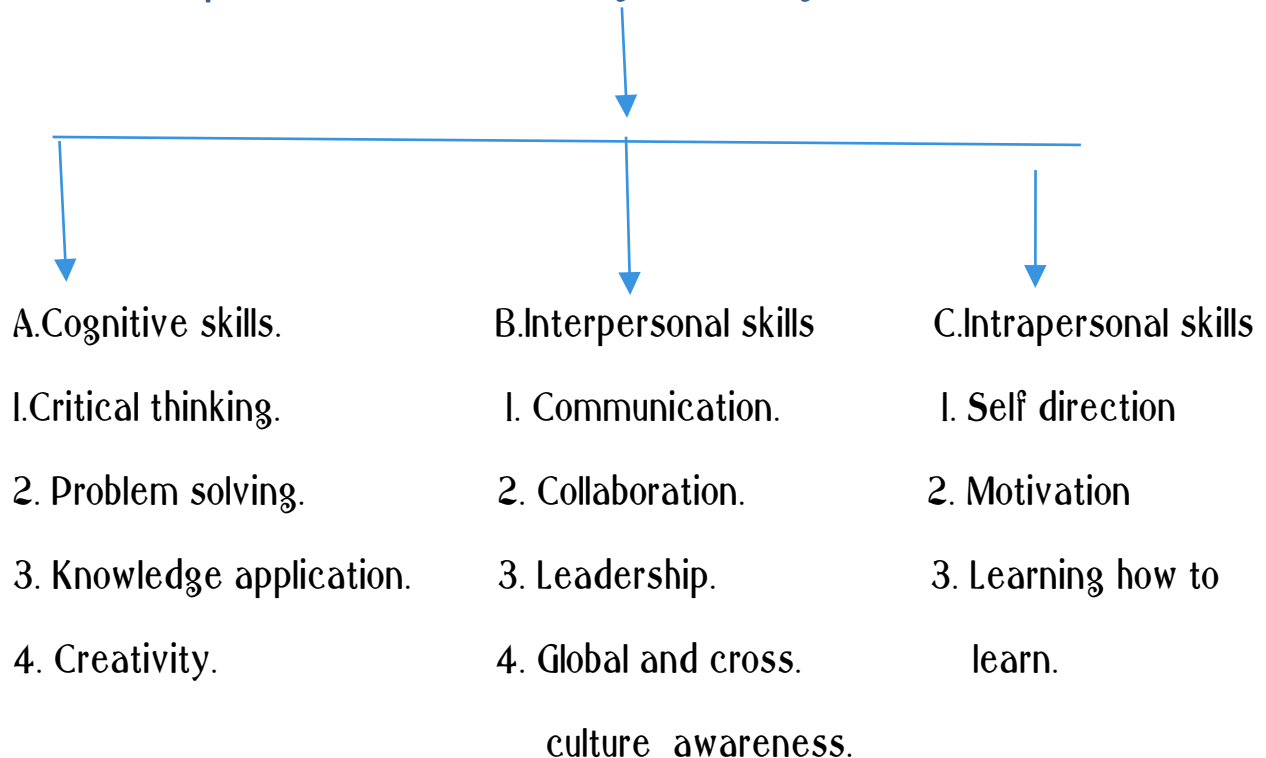
Meaning:- Competence Based Education is also known as mastery defined as about 'WHAT WE KNOW' and are 'ABLE TO DO' not 'HOW LONG' it takes us to master the course material i.e it is based on our ability to prove mastery of Competencies - skills, abilities and knowledge required in the area of science. It means students can only move forward when they can demonstrate mastery.

Working definition of Competence based education developed at competence based learning summit is based on 5 principles :-

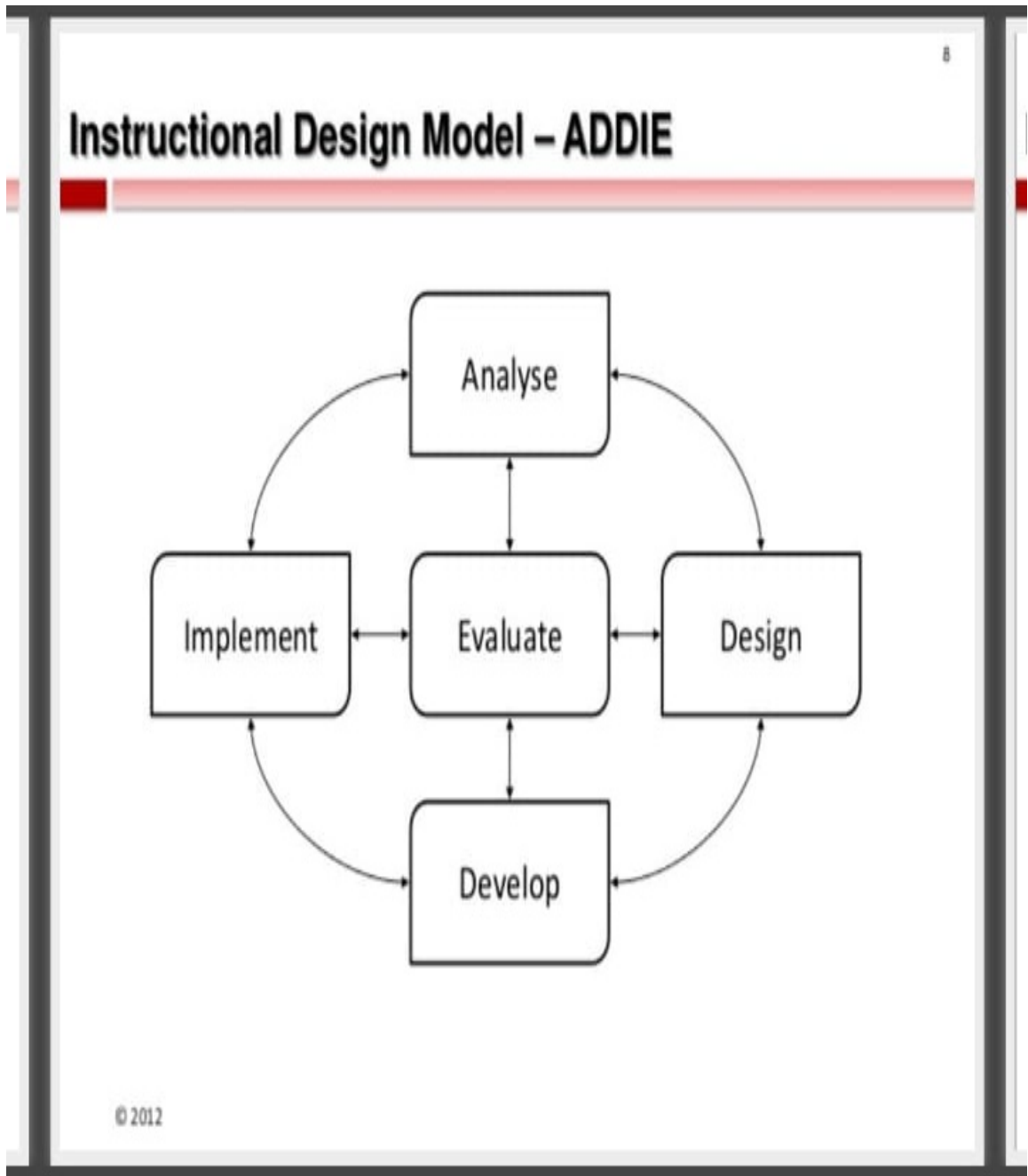
1. Students advance upon achieving mastery.
2. Competencies include explicit, measurable, transferable learning objectives that empower students.

3. Assessment is meaningful and a positive learning experience for students.
4. Students receive timely, differentiated support based on their individual learning needs.
5. Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.

The core competencies in science teaching and learning are:-



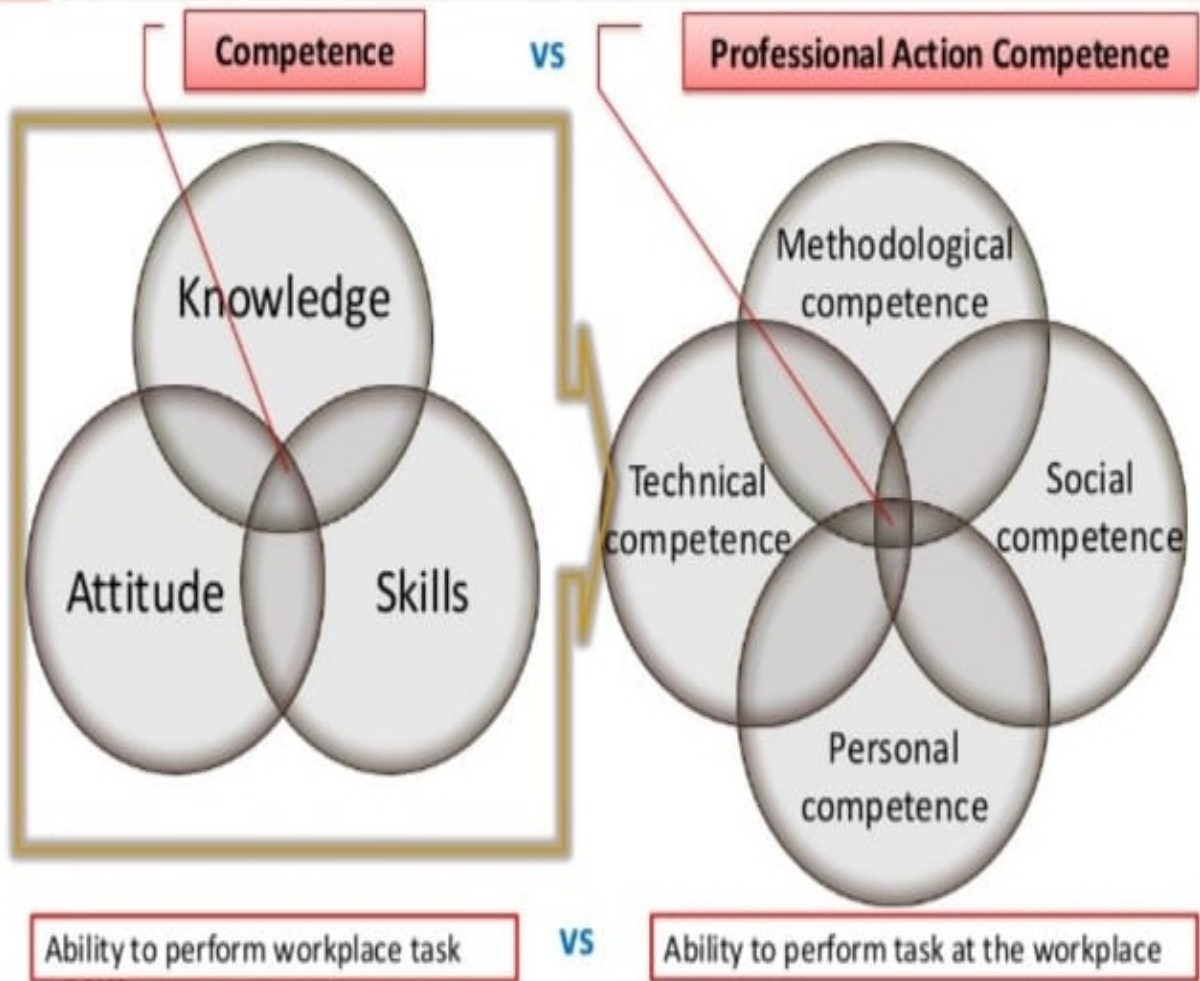
Instructional design model for Competence Based Teaching:-



NATURE OF COMPETENCE :-

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Nature of competence



IMPORTANCE:-

1. Flexibility at the level of students - It means students are given support they need individually to move forward and master the subject and inherent skills i.e Instead of moving forward based on age, they move forward based on 'Where they are' and 'What they are capable of'.
2. Learning outcomes - Based on deep understanding demonstrated through application. It means learning outcomes are proven by action and focus on building the skills students need to become better learners into adults.
3. No Bias - Education scores are based on the performance levels of each student without bias i.e teachers are able to collect and understand data on student progress with personalized and creative assessments helping the teachers to develop scores that are transparent.
4. Transparency helps students take ownership because they are more engaged in material.
5. Builds culture of equity and inclusivity and prepare students for life

beyond the walls of their school.

6. Make students empowered - Because they have control over When, Where and How they learn.
7. Self paced- The focus of CBE is on final outcomes and not journey. This enables students to control their pacing because they are not confined by a set learning process i.e moving as slow and as fast as they wish.
8. Affordable - The cost of Competence based programmes vary by institution, program and students pace. The faster a learner progresses through the material, the less expensive the program is. Since, many CBE courses are offered online and leverage technology thereby resulting in lower tuition fees.
9. Skill based- Learning centres around real-world skills and competence development. The outcome is that students are work place ready and have expertise in their chosen field.