CONTEXTUAL LEARNING

Disajikan pada :

Sosialisasi Hasil Peserta Pelatihan di Recsam - Penang

The STRATEGIES of CL

(based on Center for Occupational Research & Development)

- ## Relating

Learning in the context of one's life experiences

- ## Experiencing

Learning by doing – through exploration, discovery, and invention

- ## Applying

Learning by putting concepts to use in hands-on, experiential and problem-solving activities

- ## Cooperating

Learning in the context of sharing, responding and communicating with other learners

- ## Transferring

Learning by using knowledge in a new context or situation

6 KEY ELEMENTS OF CTL

(based on Northwest Regional Education Laboratory)

- **Meaningful Learning**

  The understanding, personal relevance and valuing that a learner attaches to the content what is to be learned

- **Application of Knowledge**

  The ability to see how what is learned applies to other settings and functions in the present or future

- **Higher Order Thinking**

  The learner is required to use critical and creative thinking in collecting data, understanding an issue, or solving a problem

- **Standards-related Curricula**

  The content of the instruction relates to a range and variety of local, state, nation, association and/or industry standards

- **Cultural Responsiveness**

  Educators must understand and respect the values, beliefs, and customs of our students

- **Authentic Assessment**

  The use of multiple assessment strategies that validity reflect the actual outcomes expected of the learner.

TEACHING and LEARNING Characteristics

	Traditional Model	Contextual Model
PURPOSE	Transmission of factual information	Finding, developing and applying knowledge to real world
ORGANIZATION	Classroom isolated from the world of work while teachers and students work alone	Classroom connected and patterned to the community and workplace

Continue ….

	Traditional Model	Contextual Model
ROLE of TEACHER	Transmitter of knowledge	Facilitator, coordinator or a knowledgeable guide to finding, developing and applying knowledge
ROLE of STUDENT	Passive recipient of facts and information through lectures and text reading	Active engagement in own learning; student constructs learning through actual workplace activities

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	Traditional Model	Contextual Model
CONTENT	**Subjects tailored for verbal and mathematical/logical intelligences**	**Subject application tailored for seven multiple intelligences**
METHOD	**Lecture; question and answer; little attention to variance in learning styles**	**Inquiry; discovery, contextual learning, and applied methods**
EVALUATION	**Testing of facts (e.g., paper and pencil tests)**	**Assessment of learning based on performance and problem solving (e.g., portfolio assessment)**

WHAT DOES A CLASSROOM LOOK LIKE?

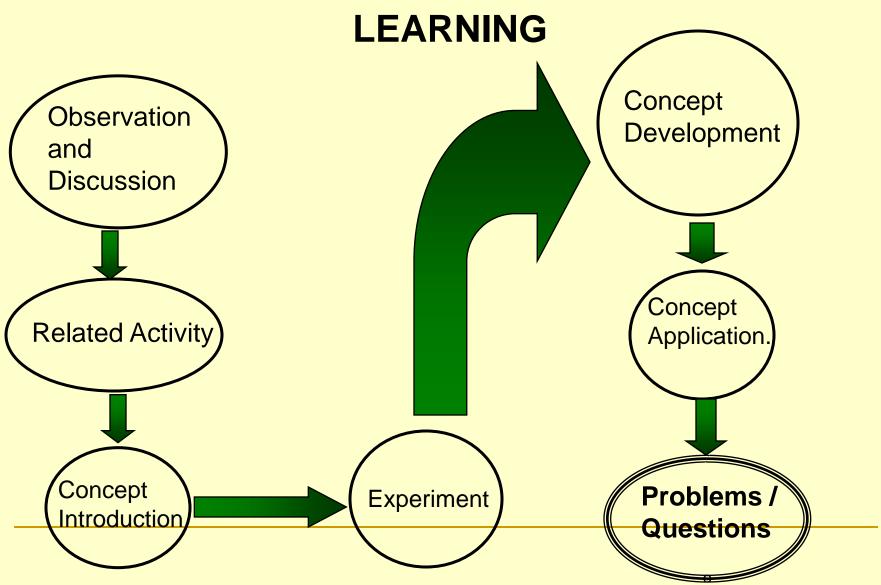| Conventional Classroom	Contextual Learning Classroom
Knowledge and the presentation of knowledge are the only important parts of the teaching-learning process.	Helping students understand of knowledge is as important as dispensing knowledge.
Thinking is usually done in theoretical and academic terms	Thinking involves making the connecting between knowing and doing with "real-life" problem-solving issues.

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Conventional Classroom	Contextual Learning Classroom
Students routinely work and study alone	Students routinely work with teachers and peers in cooperative learning.
Lessons usually begin with theory or learning exercises that emphasize memorizing.	Lessons usually begin with examples or problems from real-world experiences and then move out to interactively combine content with context

Continue ….

Conventional Classroom	Contextual Learning Classroom
Academic and vocational education are approached as though in isolation	Academic and vocational education concepts are integrated wherever possible.
Teachers tend to plan lessons and teach in isolation from colleagues.	Teacher colleagues plan lessons together and team teaching wherever possible
Time is the constant and competence is the variable.	Student mastery is the constant and time is the variable.

SUGGESTED PEDAGOGICAL FLOW OF CONCEPT DEVELOPMENT IN CONTEXTUAL LEARNING

Project Based Learning

PBL

WHAT IS PROJECT BASED LEARNING?

PBL focuses on the central concepts and principles of a discipline, involves students in problem solving investigation and other meaningful tasks, allows students to work autonomously to construct their own knowledge, and culminates in realistic products.

Characteristic of PBL

Content:

- Problems presented in their full complexity

- Students struggling with ambiguity, complexity, and unpredictability

- Real-world questions that students care about

Activities: Investigative and engaging

- **Students conducting multi-faceted investigations extending over long periods of time**
- **Students encountering obstacles, seeking resources, and solving problems in response to an overall challenge**
- **Students making their own connections among ideas and acquiring new skills as they work on different tasks**
- **Students using authentic tools (i.e. real-life resources and technologies)**
- **Students getting feedback about the worth of their ideas from expert sources and realistic tests**

Condition: Support student autonomy

- Students taking part in a community of inquiry and pursuing social context
- Students being called upon to exhibit task and time management behaviors both individually and as part of the group
- Students directing their own work and taking control over their own learning
- Students simulating the professional work of the scholar, researcher, engineer, reporter, planner, manager, and other practitioners

Results: real-world outcomes

- Students generating complex intellectual products that demonstrate their learning (e.g., models, reports)

- Students participating in their own assessment

- Students held accountable for choosing how they will demonstrate their competence

- Students exhibiting growth in their frequently neglected areas important for real-world competence: social skills, life skills, self-management skills, and dispositions to learn on one's own

4 REASONS to TRAY PBL

1. **Content** : focus on compelling ideas

Can be: - presented realistically

- presented holistically, rather than in fragments
- investigated in depth

allows learners to:

- form their own representations of complex topics and issues
- pursue aspects of content that match their own interests and abilities
- work on current topics that are relevant and of local interest
- ~~draw content from their daily experience~~

2. Activities: An effective, engaging strategy

    Can be: challenging

    Provide students opportunities to:

- learn complex ideas and skills in realistic settings

- apply skills to a variety of contexts

- combine skills, by completing "expert" tasks, professional duties, job performance, or real-life demonstrations

- solve problems

Activities are constructive

- Student experience able to construct their own knowledge

- Can improve the "richness" (meaningfulness, connectedness)

- Evokes active, deep, generative processing that keeps students interested and stimulates their initiative

Activities adapt to individual differences:

- offers multiple ways for students to participate and to demonstrate their knowledge

- accommodates different kinds of intelligence (e.g., kinesthetic, figural)

- can be matches to the learning style of students

- shifts students away from doing only what they typically do

- give parents meaningful information about varieties of student performance

3. Conditions: An empowering context

- Conditions encourage social, personal, and collaborative skills.

- Condition give students, more "authentic" learning experience; occurs a social context where interdependence and cooperation are crucial.

PBL

- **offers a learning experience**
- **develop a variety of social skills**
- **promotes the internalization of concept, values, and modes of thought, (related cooperation and conflict resolution)**
- **establishes a supportive and non-competitive climate for students**
- **provides a means for transferring**
- **allows students to try out new skills and model complex behavior**
- **students explain or defend their position in their groups**
- **involve students who don't usually participate**

Conditions encourage mastery of technological tools.

- expand students' capabilities to display and manipulate information

- widen students' interest and career options

- multiplies ways that individual students can contribute to project work

- **RESULTS : Productive outcome**
- **PBL can be:**
- **Introduce the professional skills and strategies of a discipline**
- **impart the skills and strategies associated with planning, carrying out, monitoring, and evaluating a variety of intellectual investigations**
- **create a climate – students can learn and practice "learning to learn" skills (e.g., skimming and note-taking, questioning, listening)**

- continue ...
- develop initiative, persistence, autonomy
- develop metacognitive skills (e.g., self-monitoring, self-evaluation)
- make learning meaningful by integrating concepts across subject-matter
- link cognitive, social, emotional, and self-management

- **PBL helps develop:**
- **Group process skills**
- **Life skills (conducting a meeting, making a plan, using a budget, etc.)**
- **Technological skills (using software, measuring, etc.)**
- **Cognitive process skills (decision making, critical thinking, problem solving, etc.)**
- **Self-management skills (setting goals, organizing tasks, managing time)**
- **Attitudes: love learning, interest in further education**
- **Dispositions: self direction, sense of achievement**

Constructivism

TRADITIONAL AND CONSTRUCTIVISM CLASSROOM

TRADITIONAL CLASSROOM	CONSTRUCTIVST CLASSROOM
- Curriculum begins with the part of the whole. Emphasizes basic skills	- Curriculum emphasizes big concepts, beginning with the whole and expanding to include the parts
- Strict adherence to fixed curriculum is highly valued	- Pursuit of student questions and interests is valued
- Materials are primarily textbooks and workbooks	- Materials include primary sources of material and manipulative materials
- Learning is based on repetition	- Learning is interactive, building on what the student already knows

- Teachers disseminate information to student, students are recipients of knowledge	- Teachers have a dialogue with student helping student construct their own knowledge
- Teachers role is directive, rooted in authority	- Teachers role is interactive, rooted in negotiation
- Assessment is though testing, correct answers.	- Assessment includes student works, observations, and points of view, as well as test. Process is as important as product
- Knowledge is seen as inert	- Knowledge is seen as dynamic, ever changing with our experiences
- Student work primarily alone	- Student work primarily in groups

APPROACHES for IMPLEMENTING CL

Problem-based Learning – engages learners in problem solving investigations that integrate skills and concepts from many content areas (Moffitt 2001)

Cooperative Learning – organizes instruction using small learning groups in which students work together to achieve learning goals (Holubec 2001)

Project-based Learning – focuses on the central concepts and principles of a discipline, involves students in problem solving investigations and other task
(Buck Institute for Education 2001)

Service Learning – provides a practical application of newly acquired knowledge and skills to needs in the community through project and activities (Mc-Pherson 2001)

Work-based Learning – workplace, or workplace-like, activities are integrated with classroom content (Smith 2001)

PRINCIPLES OF IMPLEMENTING CONSTRUCTIVISM IN THE CLASSROOM

- **Pose problems relevant to the students**
- **Structure learning around essential concepts**
- **Seek and value student suppositions**
- **Adapt curriculum to address students suppositions and development**
- **Assess student learning in the context of teaching**

Three Constructivist Design Model

1. The Learning Cycle
   - **The teacher encourages students to <u>generate questions</u> and hypotheses from working with materials.**
   - **The teacher <u>focuses on the students' question</u> and helps them create hypotheses and design experiment**
   - **<u>concept application</u>**

2.Constructivist Learning design by George W. Gagnon Jr., and Michelle Collay

- <u>develop</u> a situation for students to explain select process for <u>grouping</u> of materials and students
- build a <u>bridge</u> between what students already know and what the teachers want them learn
- anticipate <u>questions</u> to ask and answer without giving away an explanation
- encourage students to <u>exhibit</u> a record of their thinking by sharing it with others
- solicit students <u>reflections</u> about their learning

The Information Construction (ICON) Model

    1. Observation
    2. Interpretation construction
    3. Contextualization
    4. Cognitive Apprenticeship
    5. Collaboration
    6. Multiple Interpretations
    7. Multiple Manifestations

Thank You