EMPOWERING TECHNICAL EDUCATION LEARNERS IN E-LEARNING

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Learning

Educational Technology

Active Learning

Pedagogy

Empowering

Technical

Learners

Teaching
Challenges

21st century learners

Skills: Communication, Collaborative, Information

Technology
Partnering Pedagogy (Marc Prensky, 2010)

“…using technology is the students’ job; the teachers’ job is to coach and guide the use of technology for effective learning.”

“..digital technology is the enabler, allowing students to teach themselves in ways they couldn’t in the past.”
VAK Learning Style
VAK Learning Style
Technical Education

Visual learners

Short attention span

Kinesthetic in nature
“..The core elements of active learning are student activity and engagement in the learning process, and active learning is often contrasted to the traditional lecture where students passively receive information from the instructor..”

(Michael Prince, 2004)
Video: Empowering ELearning
Empowering ELearning

Teacher Facilitation → Active Learning → Peer Facilitation

Circular flow: Peer Facilitation → Teacher Facilitation
“...Peer mediation with young children is a relatively novel approach aimed at teaching young children how to mediate to their peers; the main benefits of peer mediation are in developing children's mediation teaching style and cognitive modifiability...”

(Tzuriel, 2007)
Differentiated Learning

“.. Differentiated instruction is based upon the concept that the teacher is a facilitator of information, while students take the primary role of expanding their knowledge through research..”

(Robinson et al., 2014)
Differentiated Learning Design in Technical Education

By

For
Kolb’s Experiential Learning Cycle

Concrete Experience

Active Experimentation

Abstract Conceptualization

Reflective Observation
Adaptation of Kolb’s Experiential Learning Cycle

Concrete Experience
- Teaching
- Student leader (creator)
- Students (user)

Active Experimentation
- Hands-on

Reflective Observation
- Collaborative discussion
- Peer mentoring
- Teacher facilitation

Abstract Conceptualization
- Conclusion
Incidental Theory – 1st Cycle

Adaptation of Kolb’s Experiential Learning Cycle

Concrete Experience
- Teaching
- Student leader (creator)
- Students (user)

Reflective Observation
- Collaborative discussion
- Peer mentoring
- Teacher facilitation

Active Experimentation
- Hands-on

Abstract Conceptualization
- Conclusion
Adaptation of Kolb’s Experiential Learning Cycle

Empowering ELearning (Creator Perspective) – 2nd Cycle
Adaptation of Kolb’s Experiential Learning Cycle

Empowering ELearning (User Perspective) – 3rd Cycle

- Concrete Experience
  - Teaching
  - Student leader (creator)
  - Students (user)

- Reflective Observation
  - Collaborative discussion
  - Peer mentoring
  - Teacher facilitation

- Abstract Conceptualization
  - Conclusion

- Active Experimentation
  - Hands-on
## Survey

<table>
<thead>
<tr>
<th>No.</th>
<th>Survey Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This method helps me understand the lesson better.</td>
</tr>
<tr>
<td>2</td>
<td>I find that I am able to pay more attention in class.</td>
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<tr>
<td>3</td>
<td>I am able to understand the concept better.</td>
</tr>
<tr>
<td>4</td>
<td>I like to use the eLearning material developed by my classmate for revision.</td>
</tr>
</tbody>
</table>

Note: Likert Scale  
(Strongly Disagree: 1 point; Disagree: 2 points; Undecided: 3 points; Agree: 4 points; Strongly Agree: 5 points)

Mean = 3.58 points
“I like to use the eLearning material developed by my classmate for revision.”

Highest mean (3.79 points)
Conclusion

Positive peer influence

Technology

Teacher facilitation

Goal: strengthen student’s learning experience.

Encouraging a caring and supportive learning environment.
Thank you