DESIGN AND EVALUATION OF ENTREPRENEURIAL DESIGN THINKING MODULE TOWARDS GENERATING BUSINESS IDEAS AMONG POLYTECHNICS' STUDENTS

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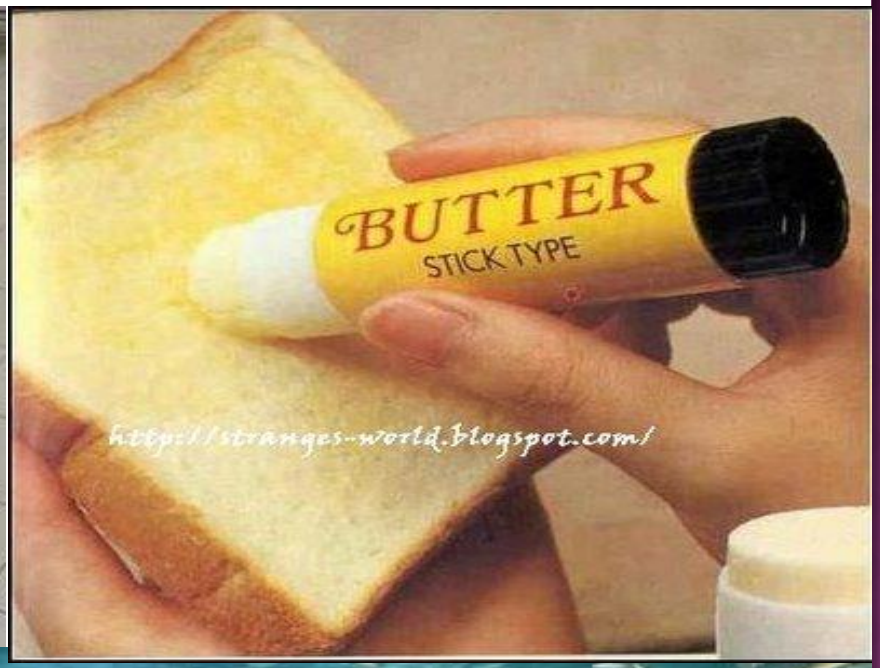
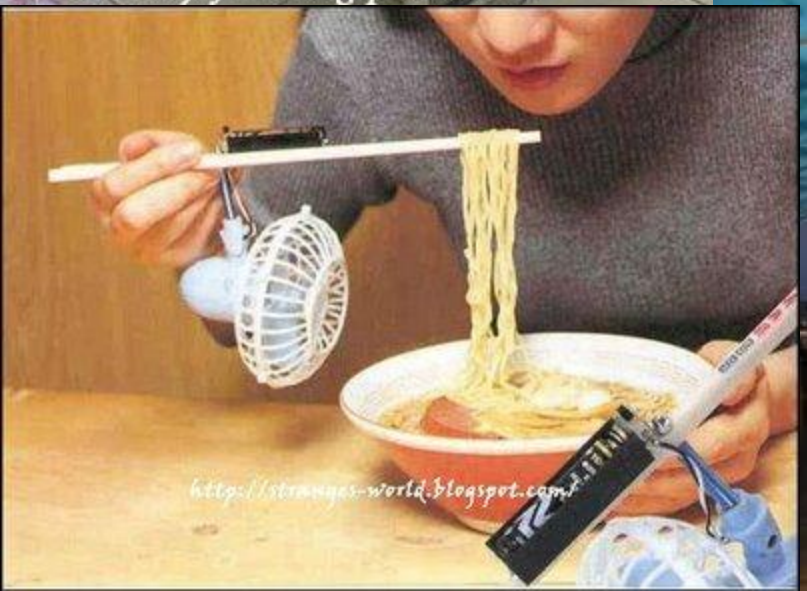
Inspiring Education: Creativity & Entrepreneurship APEID 15th Conference 6- 8 Dec 2011, Jakarta

THE IMPORTANCE OF CREATIVITY



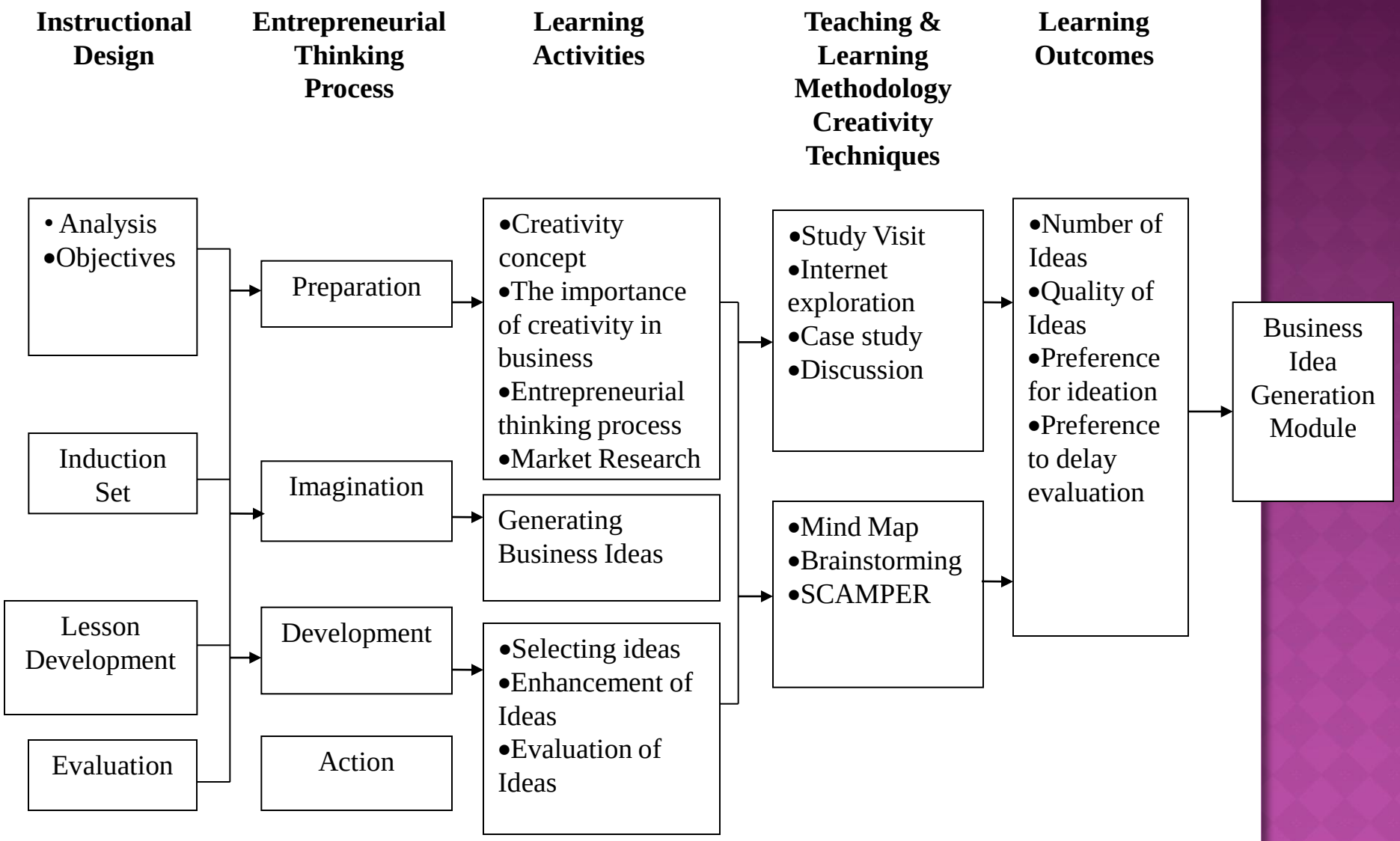


OPPORTUNITY RECOGNITION & EXPLOITATION

Recognising and Evaluating Opportunity → Developing Business Plan → Identifying resources → Manage the business

PROBLEM STATEMENT

CONCEPTUAL INSTRUCTIONAL DESIGN BUSINESS IDEA GENERATION MODEL



DESIGN

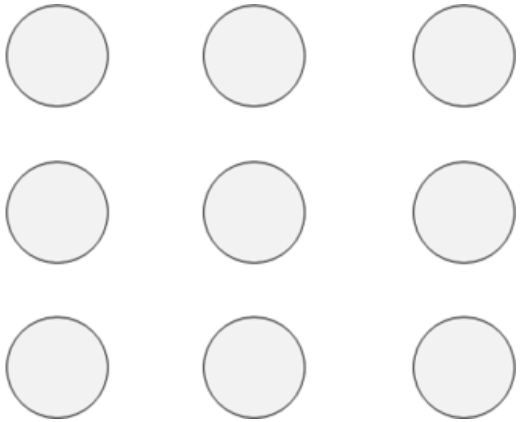
- Learning Objectives- based on the outcome of learning- the skills that want to instill, suit to the allocated lesson period
- Prior-Knowledge-“How creative you are?” questionnaire
- Induction Set- questions, games, explanation
- Learning Activities- in line with guided discovery learning strategy
- Evaluation of learning- based on exercises/assignments and evaluation at the end of each module unit

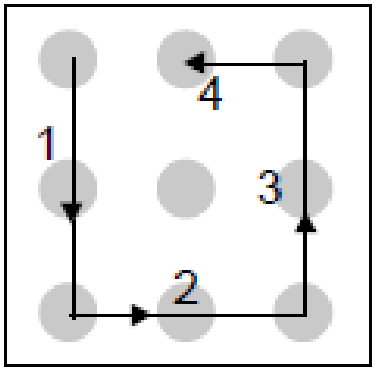
TEACHING METHODS

- Brainstorming- to get ideas, to solve problems
- Internet exploration- information how to make market survey
- Study visits- visit shops nearby polytechnic
- Games- to instill the understanding of the creativity concept
- Case study- The invention of liquid paper
- Discussion- how to improve the idea

- Three creativity tecniques employed: brainstorming, mind mapping and SCAMPER (substitute, combine, adapt, modify/magnify, put to other uses, eliminate, reverse/rearrange)
- Design message- format of the module/standardisation (font type/size, how to deliver the message effectively.
- mind maps, blank space, table and rubric table for students to write in answers

9 DOT PUZZLE

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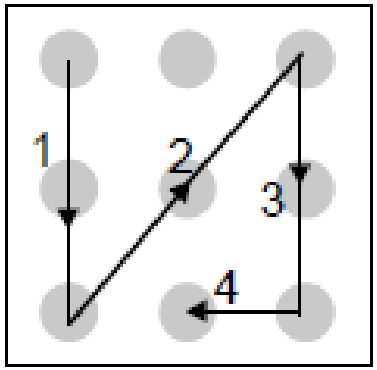
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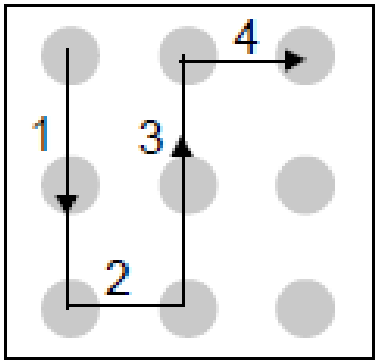
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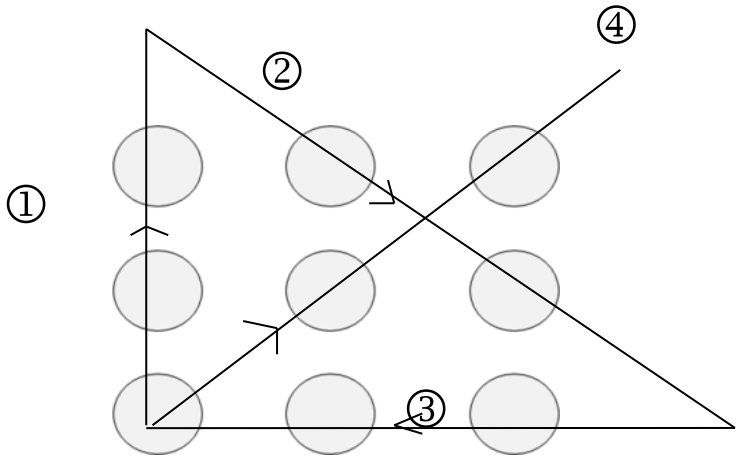
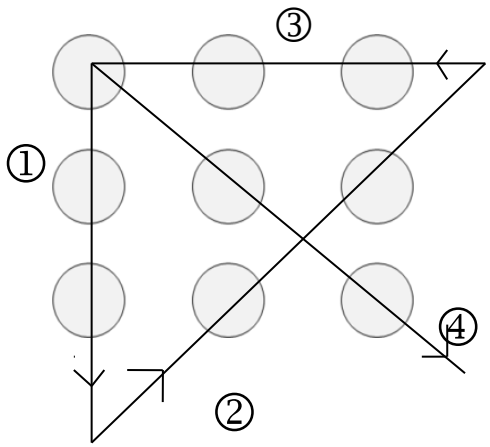
GUIDE

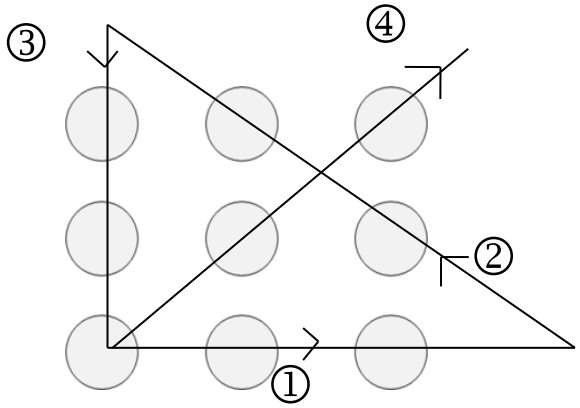
- Probing: “Do you think that there is a boundary along the outer circle?”
- Suggestion:“why not extend the first line outside the third circle and think how you can connect the rest of the circle?”
- Feedback: “That’s should be ok”.
- Asked students opinion/reflection: What do you know about the concept of creativity ?

SAMPLE ANSWER



ALTERNATIVE ANSWER





VALIDITY AND RELIABILITY OF MODULE

- Content validity- send to expert
- Reliability- questionnaire developed based on the objectives of the module
- Pilot-study: 19 students used the module

EVALUATION OF MODULE

- 27 items 5-likert scale questionnaire
- Students perception on learning using the module
- Modification from the reliability questionnaire
- Questions ranging from creativity concept, importance of creativity in business , entrepreneurial thinking process, market survey, idea generation, selecting, enhancing and evaluating ideas.
- Focus group interview

RESULTS

- The perception of students towards learning using module were high
- Students understand the creativity concept, the importance of cretivity in business and appreciate the steps in entrepreneurial design thinking
- Students are able to come out with creative business ideas

CONCLUSION

- The module was developed using combination of instructional design, ADDIE; entrepreneurial design thinking model; guided discovery learning strategy and creativity techniques.
- Creativity can be taught and learned
- Further research on using other type of learning strategy to stimulate creativity e.g. experiential learning and other types of creativity techniques
- Further research on exploiting/turning the business idea into a reality