

Devised contents in the elaboration stage
of the “Creation design engineering” project
currently taught at Yamaguchi University

~ TRIZ × Competency = For developing creativity of students ~

The 8th TRIZ symposium in Japan @ Waseda University 120908

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1 Outline of Project

Conclusion	Purpose
Devised	Change

Purpose:

“ Engineering & Manufacturing Technology ” which utilized the design technique raises a student’s interest and sense of purpose. It acts as a professor of the various methodology for creativity exertion (QFD, TRIZ, etc.) systematically. and the base of creativity is raised by making the creativity experience.

Outline of project

1. Basic of design process and the thinking method
 - Marketing, brainstorming, KJ method
2. Basic of industrial concept
3. Thinking and a business solution method
 - QFD, TRIZ, etc
4. Sensitivity design
 - Basic of design, CAD/CAM
5. Presentation
6. Exhibition

Object:

The fourth grader from whom a special field of study differs.



2. The situation of a lesson

◆ We cared about that students made it know especially that a free and generous discussion and a high target are challenged and that a subject is attained.



The situation of a lesson

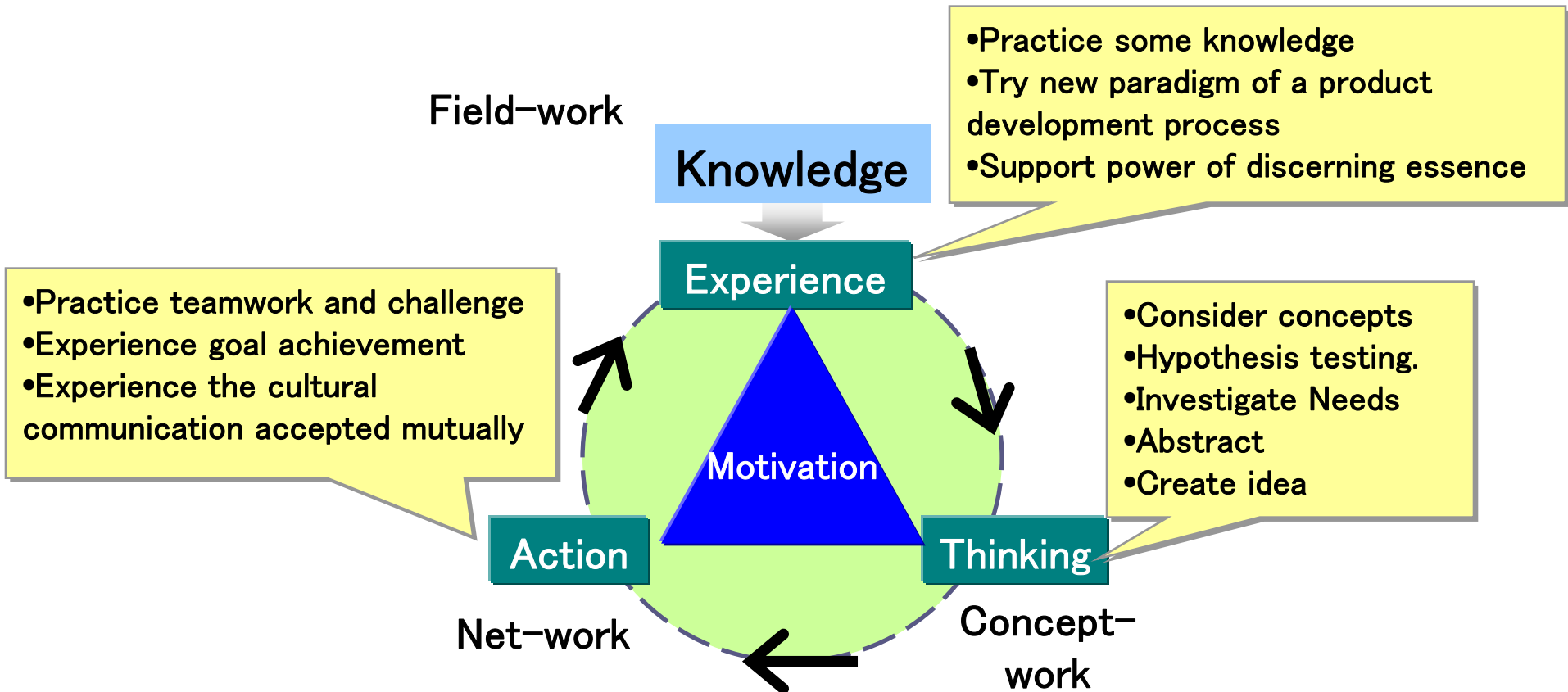




3. The educational concept of this project

◆ Students did not fear failure but challenged thinking / action process thoroughly.

✘ thinking / action process = competency

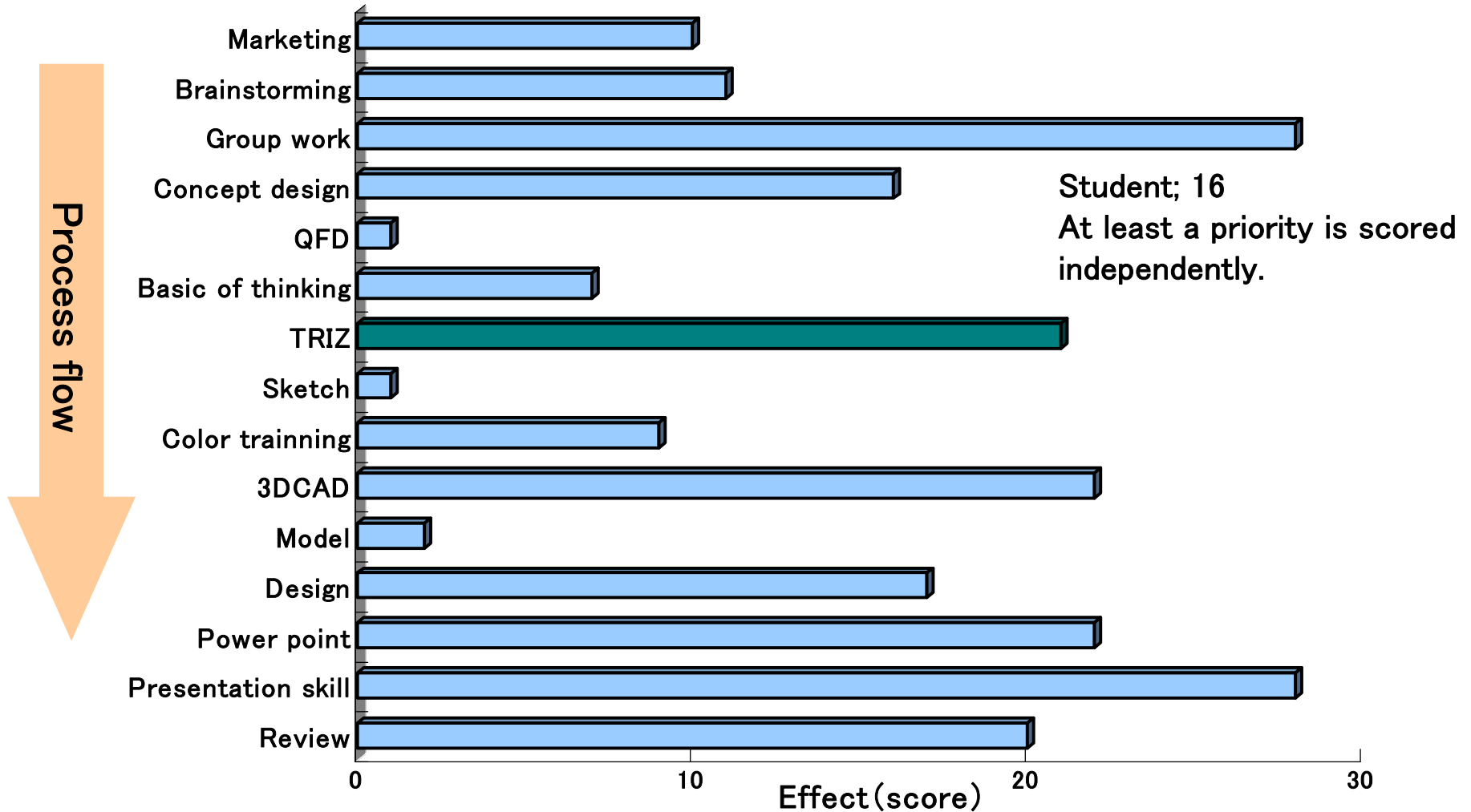




4 Which will be useful skill for you ?(2011)

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◆ Many students have recognized the high possibilities of TRIZ in much skill.





5 The definition of motivation and theory to prove

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① Curiosity, Challenge

⇒ Vroom's expectancy theory

② The meaning and a feeling of organizational contribution which perform a theme

⇒ Atkinson's expectancy-value model, Frankl's will-to-meaning
Vroom's expectancy theory

③ Communication of a team etc.

⇒ The need for relatedness by Edward Deci, Social need/love and belonging by Maslow

④ It is praised by a lecturer, a member, customer, etc.

⇒ Maslow's esteem, Frankl's will-to-meaning