A Multi-stage Assessment in Technology Education - The Design of the Package for a Product to be Put on Sale in Supermarkets (Secondary 3)

Assessment is an inevitable part of the learning, teaching and assessment cycle. It provides important data and information on the effectiveness of learning and teaching, which can then be used as the basis for planning in the next stage of learning and teaching. Furthermore, assessment itself is a critical thinking process, which can also be a learning process for students.

The following example is a multi-stage assessment approach to provide essential information for students in technology lessons to refine their products and to understand the process.

1. The Tasks

Design task: A class of secondary three students is given plastics materials and is allowed to use the vacuum forming machine and press moulding techniques. The students are asked to design and make a suitable package, with printed instructions, for a product for sale in supermarkets.

2. Learning Activities

Stage 1 Designing

In this stage, students are asked to :

- formulate the theme of the product and the package design
- collect and compare data for similar products available on the market
- prepare alternative design sketches and analyze the strengths and weaknesses of the designs

Outcome

- A portfolio

Assessment 1

- Students present their portfolio to teachers and classmates. Through critique of the presentation, they will be able to obtain information to improve their design.

Stage 2 Making

Students then finalize the design and produce the artefact and the package according to the design.

Outcome

- A well packaged product

Assessment 2

- Throughout the process students may need to further adjust the design to resolve technical problems.
- Students may also ask their peer group to comment on the product during the process of production so as to further improve the final product.

Stage 3 Critique

After completing the final product, students undergo a holistic and critical analysis of the project in the following areas:

- Compliance of the product with the original design
- Factors which cause the product to deviate from the original design
- Reference to similar commercial products
- Social implications of the product

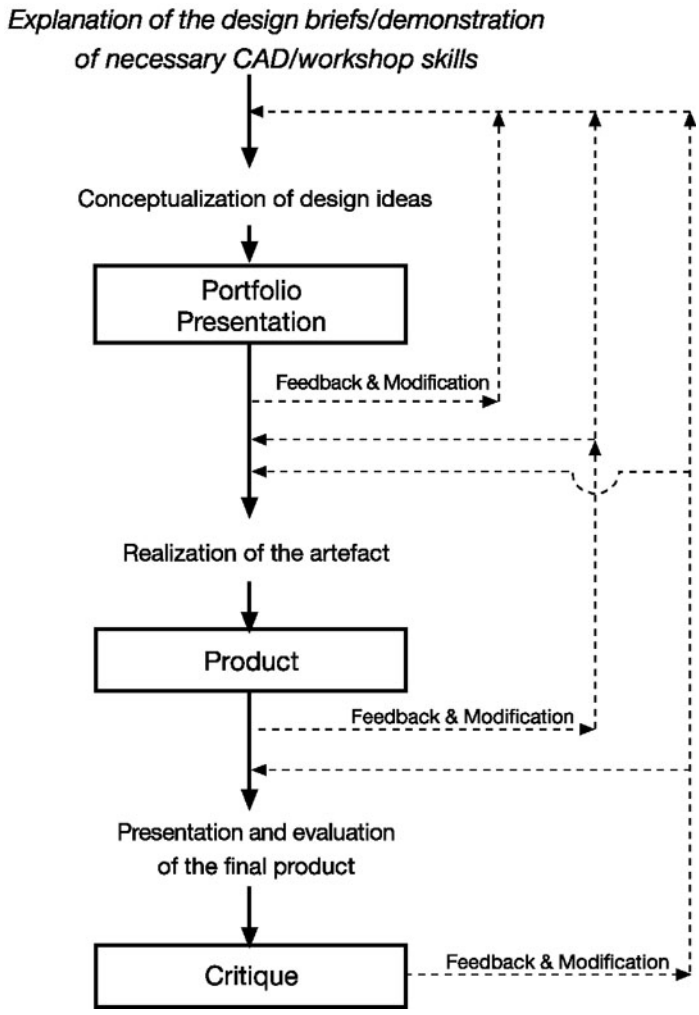
The students should first conduct a self-assessment followed by open critique from the whole class.

Outcome

- This process of critical analysis of the products by students themselves and their classmates not only enriches students' learning experiences in technology but also develops their generic skills. It also provides invaluable knowledge and skills which are essential for their future studies.

Note: The original project work and photos are provided by Ng Yuk Secondary School.

3. The feedback cycle to improve learning and teaching can be depicted as follows:



The feedback cycle to improve learning and teaching