

Educational Research Award Scheme Sharing

Mr. Lee Tsz Wai

Ms. Lam Wai Mei



新生命教育協會呂郭碧鳳中學
NLSI Lui Kwok Pat Fong College



Ms. Law Chenk Yan

迦密唐賓南紀念中學
Carmel Bunnan Tong Memorial Secondary School

Contents

1. Introduction

2. Experience of subject teacher

3. Reflection

Introduction

Introduction

1. **WHY** did we join the
Educational
Research Award
Scheme?

School Level -- Teachers' Professional Development

IV. Establishing Commendation Schemes

21. The EDB will establish a new commendation scheme to acknowledge teachers and school leaders with distinguished contributions to education and promotion of school development. In addition, schools are advised to consider creating the title of “Expert Teacher” to recognise the outstanding performance of teachers in learning and teaching, education research and developing professional learning communities, taking into account their school-based circumstances. The new title serves to acknowledge their contributions in enhancing teacher professional development and identify teachers for promoting professional exchange within and across schools. Further details will be announced in due course.

COTAP -- T-share



Since its inception in June 2013, the Committee on Professional Development of Teachers and Principals (COTAP) has been working towards building shared vision, mission and objectives for enhancing the professional development of teachers and school leaders in Hong Kong. To achieve these goals, COTAP has launched T-excel@hk, an overarching project which comprises eight areas of focus.

The Educational Research Award Scheme (the Scheme) is an initiative under T-share, which is one of the focus areas under T-excel@hk. It aims to encourage teachers to try out, improve and share new or effective pedagogical practices through educational research; further enhance teachers' professionalism and support their continuous professional development; and promote a research culture within the education sector.

Great support
from the
principal



Introduction

2.1 What is our topic?



在初中家政科推行「設計思維」
以培養學生自主學習並同理心

Introduction

2.2 Targets

F.1-F.2 students

Boys & Girls

Home Economics

2.3 Methodology

(A) Questionnaires

Aflatoony, L., & Wakkary, R. (2017). Becoming a Design Thinker: *Assessing* the Learning Process of Students in a Secondary Level *Design Thinking* Course.

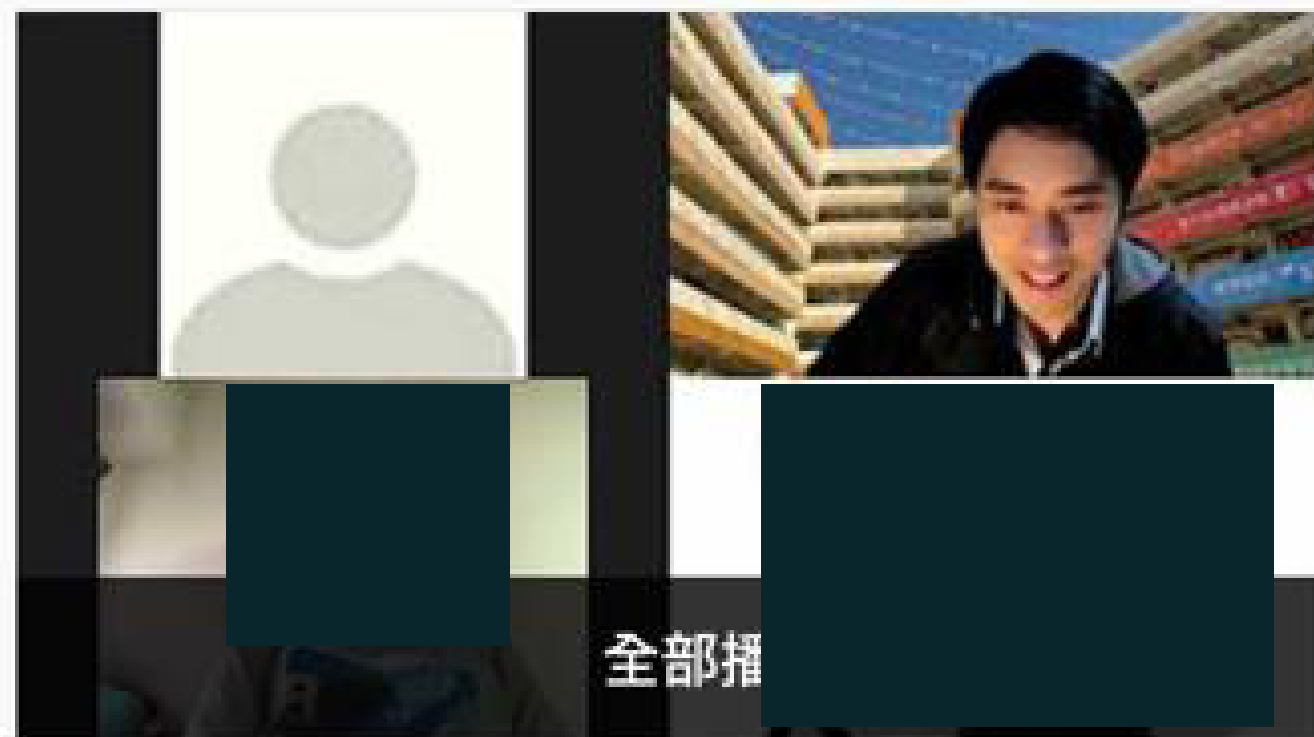
Simon Baron-Cohen and Sally Wheelwright (2004).
The *Empathy Quotient*

2.3

Methodology

B1 Interview

focus group



教研-DESIGN THINKING IN HE

6 部影片 · 觀看次數：10次 · 上次更新日期：2022
年4月10日

不公開 ▾

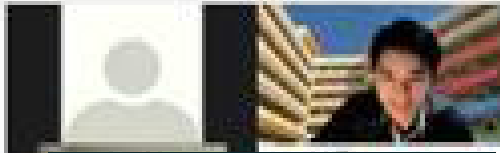


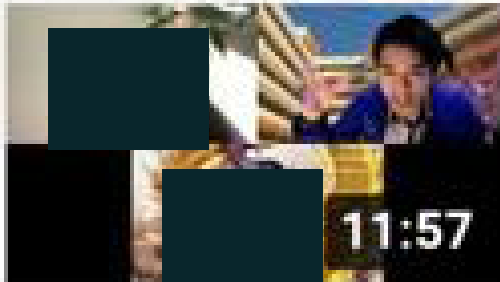
未提供任何說明

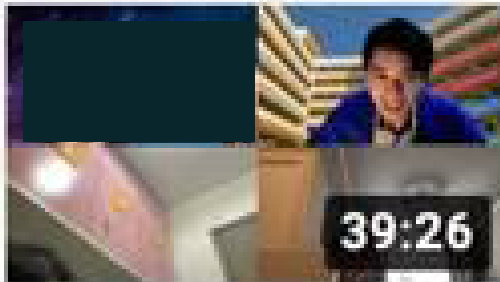



Tsz Wai Lee


≡ 排序

≡  **2A2D訪談**
Tsz Wai Lee

≡  **2B訪談**
Tsz Wai Lee
11:57

≡  **2C 訪談**
Tsz Wai Lee
39:26

≡  **1A1D訪談**
Tsz Wai Lee
43:45

≡  **1B1C訪談**
Tsz Wai Lee
50:17

2.3 Methodology

C) Students' work & teacher observation

Stage 4: Prototype

Task 4: Pattern Construction and Preparation of Fabric

Part 1: Refer to the given pattern construction notes and adjust your final design pattern. The finished pattern should keep inside your display folder.

Submission Date: _____

Part 2: Preparation of Fabric

Refer to the notes of preparation of fabric and finish the preparation process in class. Teacher will record your progress and count it as your daily performance.

Part 3: Sew the final product

Refer to the teacher instructions, sewing notes and the self-directed learning materials, finish the final design.

Part 4: Presentation of your Final Design

Congratulations! ☺ You've finished making your pencil case. Take a photo of your final product and stick it below.



Stage 5: Test

Task 5: Self-reflection & Peer-evaluation

Part 1: Self-reflection

After making the pencil case, please put a '✓' that best describe your opinions.

	Strongly agree	Agree	Disagree	Strongly disagree
1. I participated well in the lessons.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I tried my best to complete the article.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I love my article. <i>作品</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I understand the <i>过程</i> <u>process</u> and the use of design thinking model.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I could show <i>理解</i> <u>empathy</u> to the user's needs and wants.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I could fully understand my teacher's <u>instructions & demonstrations</u> . <i>说明 限制 演示</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are there any <u>limitations</u> of your design?				

It is too short and don't have a longer white metal zipper.

Introduction

3. Role of Panel Head

21st Century Learning Design

- Technology Education Key Learning Area (TEKLA)
- Modes of Implementation
Home Economics curriculum
- School's Major Concerns

3.1 Technology Education Key Learning Area (TEKLA)

- purposeful application of knowledge, skills and values & attitudes

3.1 Technology Education Key Learning Area (TEKLA)

- using resources to create products or systems to meet human needs and wants
(Individual, Family, Community)

3.1 Technology Education Key Learning Area (TEKLA)

- has impact on the individual, family, society and the environment

3.2 Modes of Implementation

Home Economics curriculum

- Subject & School-based learning
- Theme-based Project Learning
- Life experiences of students
- Hands-on studies
- Community needs/Problem-solving

3.3 School's Major Concerns

- self-directed learning



Aspire

Boost your knowledge

Connect

Experience of subject teacher



DESIGN THINKING

Empathize
Understanding people

Ideate
Generating
your ideas

Define
Figuring out
the problem

Test
Refining the
product

Prototype
Creation and
experimentation

在初中家政科推行「設計思維」
以培養學生自主學習並同理心

Planning

CURRICULUM

ASSESSMENT

Research process

RESTRICTIONS & DIFFICULTIES

SOLUTION

Planning

CURRICULUM

- Balance the teaching contents for regular Home Economics curriculum requirement and the new content (Design Thinking)

Merge "design thinking process" into the project-based work

ASSESSMENT

- Worksheets design
 - E.g. Subheading: stages of design thinking process
 - Clear demonstration
Comparison of Terms 1 & 2
(level up)
- Rubrics
 - add related assessment items
- Questionnaire

Items	Good 😊 😊	Satisfactory 😊	To be improved 😞
Design & colour ____/15	<ul style="list-style-type: none"> Cup holder displays great elements of design and student's creativity. Cup holder is totally in line with the final design. Cup holder is well-considered for the user's needs and wants. 	<ul style="list-style-type: none"> Cup holder displays some use of elements of design and somewhat displays the student's creativity. Cup holder is related to the final design. Cup holder has shown a bit of a relationship to the user's needs. 	<ul style="list-style-type: none"> There is no evidence of creativity in the cup holder. The cup holder is totally different from the final design. Cup holder doesn't show a relationship to the user's needs.
Stage 1 &2: Empathy and Define ____/5	<ul style="list-style-type: none"> The questionnaire is completed by following all the requirements. 3 or more design details are stated clearly with reason in the "define" stage. 	<ul style="list-style-type: none"> The questionnaire is completed but there seems to be some confusion. Clear target user is shown. 1-2 design details are defined and related to the questionnaire. The design reason is shown in the "define" stage but not clear/reasonable. 	<ul style="list-style-type: none"> The questionnaire is incompleted. No clear target user is shown. The design details defined are not related to the questionnaire. No design reason is <u>shown</u> in the "define" stage. No complete sentences are written.
Stage 3 Task 2: Ideate ____/10	<ul style="list-style-type: none"> All designs show empathy to the user's needs. The design is completed with clear details. Feedback is written and reasonable. 	<ul style="list-style-type: none"> At least 1 design shows empathy to the user's needs. The design is completed but is not clear in details. Feedback is written but some of them are incorrect/not reasonable. 	<ul style="list-style-type: none"> All 3 sketches do not show empathy to the user's needs. The design looks rushed and/or incomplete. Little or no features are highlighted or labelled. No feedback is written or most of them are written incorrect.
Stage 3 Task 3: Final Design and Stage 5: Self and peer evaluation ____/15	<ul style="list-style-type: none"> The final design shows empathy to the user's needs. The design is well illustrated with colour and labelled. Clear and reasonable adjustment of the design is given. The reflection is well-explained. 	<ul style="list-style-type: none"> The final design shows empathy to the user's needs. The design does not include all the requirements, e.g.: <ul style="list-style-type: none"> labelled with <u>dimension</u> labelled with other design <u>details</u> draw with <u>colour</u> Adjustment of design is completed but not clear/reasonable. The reflection is completed but not clear. 	<ul style="list-style-type: none"> Final design doesn't show empathy to the user's needs. The design looks rushed and/or incomplete. Little or no features are highlighted or labelled. No reason for the adjustment is given. The reflection is very vague.

Consistency

Show empathy **

Basic: target users

Show empathy **
(understand user's needs and wants)

Collect feedback for adjustment

Show empathy **
(show reasons for the final design)

During research process

RESTRICTION & DIFFICULTIES

- Difficult to assess: empathy
- Students could not grip the concept of design thinking clearly
- 2nd SEM: pandemic >> Zoom lessons

2. Finish the questionnaire

A list of questions is given to you by yourself if the pencil case

No need to introduce as you are going to make it for yourself

Introduce yourself first: Hi, Alex (name). I am going to design a pencil case (what) in my Home Economics lesson and I would like to make it as a gift for you. Since I want to know more about your preferences, could you please help me to do the interview?

1. How many pens do you carry normally?

☐ 5-8 ☐ 9-12 ☒ 13-16 ☐ more than 16

2. Do you prefer to put the calculator inside your pencil case?

☒ Yes ☐ No

3. How long is your ruler?

☒ 17cm ☐ 20cm ☐ longer than 20cm

(You can suggest not to put the ruler inside the pencil case if it is over 20cm long)

4. What shape(side view) do you prefer?

☐ round ☐ triangular ☒ square ☐ tall rectangle



5. Would you prefer any combination of fabric?

(If yes, Q7 and Q8 have more than 1 answer)

☐ Yes ☒ No

6. How many pockets do you prefer?

☒ No ☐ 1 ☐ 2

Ending: Thank you so much for your help. I will ask for more suggestion after the designs are created.

3. Define the needs and wants of the target user

Example 1: I need a way to put the rubber because I lose the rubber easily

Example 2: Amy mentioned that she brings more than 16 pens normally. pencil case with large capacity.

Example 3: Peter prefers dark color because it is uneasy to get dirty.

Necessary design elements (needs) (at least 1)

1. I need a way to put some pencils because
2. need to use more pens to writing.
- 3.

Other design elements (wants) (at least 2)

1. The pencil case need to be big
2. made of cloth
- 3.
- 4.

No improvement.

present the needs/wants 2nd in sentence with reasons
→ It should related to the design elements
e.g. size, colour, material, special needs ...
E.g. I prefer a pencil case with large capacity because I carry a lot of pens.
∴ needs and the reasons are not the same.

Part 1: Adjustment of your final design

I have not changed my design because ~~Sketches~~ I has met the requirement of Henry, he loves the anime character.

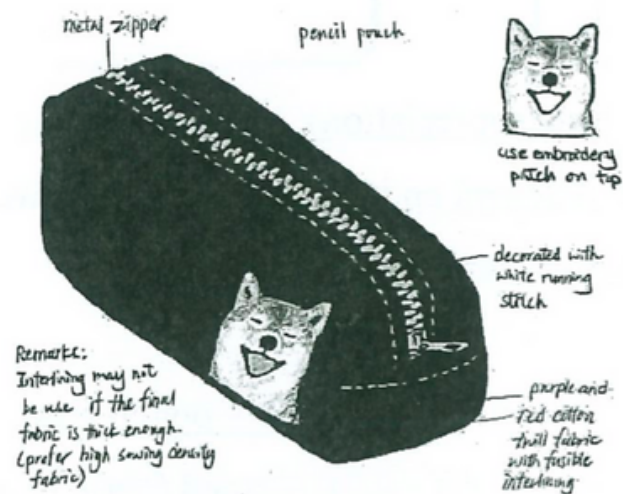
Stage 3: Ideate

Task 2: Sketch Some Designs and Collecting feedback

Sketch at least 3 designs (rough sketches), please remarks the size, texture, emb stitches design, etc. in wordings. Ask for feedback after you finished the sketch mark the key point clearly. An example is given.

(Optional: Attach fabric sample for better presentation of design)

Sketches (Example)



Sketches 1



① The feedback must related to your sketches
→ not copy my feedback part

😊 Good design elements

😞 Something need to be improved

!!! Any new idea?

② Indicate details in the drawings.

- color - material
- size

Part 2: Finish your final design

Part 2: Design Illustration



① Where's the anime character?

② In your drawing,

- color it

- size? (width, height, length)

- material?

- any stitches? hand

- Not in line with the final product.



Feedback (example):

😊 embroidery patch, top running stitch

😞 prefer combination of red and blue

!!! name may sew at the side of the case

Feedback:

😊 top running stitch

😞 prefer red

!!!

During research process

- Provided lots of demonstrations & guidelines
- Adjusted submission format in 2nd term (Canva/ draw booklet)
- Provided suggested self-directed learning websites
- Showed lots of correct and wrong examples
- Provided feedback for 1st submission

SOLUTION

Ideate and Prototype Stage Useful Resources

[Color Wheel](#)

[Color Palette](#)

[Gathered Useful Information](#)

[How to Use Sketchbook](#)

[How to Use Sketchbook\(supplementary\)](#)

[About Materials](#)

[About Fabric Patterns](#)

[More About Grain line \(help you to cut fabric\)](#)

[Cantonese YouTube Channel for Sewing Projects](#)



01 class notes and sta...empathy



02 stage 2 - define



02 stage 2 - define.mov



03 stage 3 - ideate part1



04&05 stage 3 - ideate part2&3



Project template - ideate -...dited.pdf



S2 Lunch bag design t...late.png

Students' work in 2nd term (Medium)

Contents



1

Empathy
(Mode 1)

2

Define

3

Ideate

4

Prototype

5

Test

Students' work in 2nd term (High)

C O N T E N T S

MODE2

01 Empathy

02 Define

03 Ideate

04 Prototype

05 Test



Reflection

Professional Development

Curriculum Development

Suggestions from the Judge

more evidence such as

1. direct quotes from students' interviews

2. their self-evaluation document

3. peer assessment

can strengthen the research findings

Team Work

Educational Reform / Innovation

Thank
you