
Exercise #5: Graphical Manipulation Strategies

Names:

Email typed exercises:

To: *mackay@lri.fr; mbl@lri.fr*

Subject: *<last name> FSI: Ex #5: Graphical Manipulation Strategies*

You will work in pairs and interview each other using critical object technique. Your goal is to find out as many details as possible about how your partner created the "F" poster you designed for exercise #3. Each partner will act as an interviewer and as an interviewee:

Interviewer: Ask specific questions, probe for more details and take notes.
Show your notes to your partner and ask for corrections and additional details.

Interviewee: Refer to your own poster and try to remember as much detail as you can.

1. Find a partner and make sure that each of you have the poster you designed for Exercise 3.
2. Conduct two **Critical Object Interviews**:
 - Partner A: interview partner B about the process used to create the "F" poster.
 - Partner B: interview partner A about the process used to create the "F" poster.

Sample interviewer questions:

Describe the series of steps you followed to create the poster.

How did you start? What did you do next?

Include steps that did not produce the result you wanted.

What went wrong? How did you fix it?

3. What strategies and 'clever ideas' did you use to accomplish a particular effect?
 - Create the foreground and background?
 - Align and distribute objects?
 - Create the arcs in the logo?
 - Create the triangles?
 - Did you work square by square or create subgroups of squares and assemble them?
 - What properties of the graphical objects did you use? e.g. placing objects along a line to align them.
4. Pay special attention to *surprises*: What did you learn from your partner's strategies? Your own?

About Critical object interviews

Critical object interviews are designed to elicit detailed stories of the interviewee's recent interaction with a physical or digital object. Your goal is to obtain a step-by-step account of how the object was created, in this case the "F" poster from exercise #3.

The form of the question prompts the form of the response, so ask specific questions:

"What did you do first?" "Why?"
"Did it work as you expected?" "Why not?"

Prompt for more details with good follow-up questions. If you hear the interviewee saying words like "usually", "sometimes", or "normally", stop them and try to get them to tell you something about the specific details of the current story: *"That's interesting, but what did you do this time?"*

Critical object interviews take advantage of *episodic memory*, which works best when referring to *recent* (less than a week) and *memorable* (either positive or negative) events. People remember best when they are in the same or similar context as when they created the object, especially if they have access to the object itself.

At the end of the interview, you should have a story of the steps the interviewee followed to create the object, including what they intended to do at each step, what they actually did, how the system responded, and what they thought of that response.

Your notes should follow the following format:

Interview #1: A interviews B and takes notes

Interviewer A: _____ Interviewee B: _____

Question: _____

Answer: _____

Question: _____

Answer: _____

...

Interview #2: B interviews A and takes notes

Interviewer B: _____ Interviewee A: _____

Question: _____

Answer: _____

Question: _____

Answer: _____

...

Exercise #6: Cross-Application Tools

Names:

Email typed exercises:

To: *mackay@lri.fr; mbl@lri.fr*

Subject: *<last name> FSI: Ex #6: Cross-Application Tools*

1. Find tools that are used ***across multiple applications***.

For each tool: How similar or dissimilar are they?

What do they reify?

Are they polymorphic?

Are they reusable?

2. Find tools that exist ***in only one application***.

For each tool: How could it be used in another application?

Exercise #7: Pencil properties

Names:

Email typed exercises:

To: *mackay@lri.fr; mbl@lri.fr*

Subject: *<last name> FSI: Ex #7: Pencil Properties*

1. Start with your group's set of pencil ideas.
List the physical properties of the pencil, e.g. 'rigid', that make the activity possible.
2. For each physical property, list as many uses of that property as you can, e.g., 'prop up a young plant'.

Exercise #8 Finding Structures

Name:

Email typed exercises:

To: *mackay@lri.fr; mbl@lri.fr*

Subject: *<last name> FSI: Ex #8: Finding Structures*

Pick three activities. Identify at least five structured ways to organize information for that activity. For each, identify the type of computer structure and what it is for. For example:

Activity: Cooking

- | | | |
|-----------------------|-------------|--|
| 1. Recipe | compound | specify ingredients and steps to perform |
| 2. Shopping list | paired list | specify amounts of each ingredient |
| 3. Diploma | sequence | certifies successful completion of a cooking course. |
| 4. Cooking video | sequence | show how to perform each step |
| 5. Substitution chart | table | provide alternatives for different ingredients |

A. Activity: _____

1 _____

2 _____

3 _____

4 _____

5 _____

B. Activity: _____

1 _____

2 _____

3 _____

4 _____

5 _____

C. Activity: _____

1 _____

2 _____

3 _____

4 _____

5 _____