

# SPM4332: CD-ROM BASED MULTIMEDIA DEVELOPMENT

# INTERACTION DESIGN

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# Introduction

- Part 1: Information Design
  - Focused on planning the design and answered the question : “What is this product ?”
- Part 2: Interaction Design
  - Focused on the mechanics of the design and answers the question : “How should it work ?”
- What is Interaction Design ?
- Before that...what is interactivity ?

# Introduction

## Interactivity according to Nathan Shedroff (1994)

- Interactivity is about genuine human engagement. That's the measure of successfully "interactive" software. This means that the competition for interactive media products is as big as all of human experience.
- In other words, your competitors for that CD-ROM on tropical fish are not other tropical fish CD-ROMs or even laserdiscs, but television documentaries, narrative and reference books, aquariums, scuba diving, travel, etc.
- If the experience you create is not a compelling one (whether justified by the bounds of the technology or not), you will never find a large audience. (Shedroff, 1994)

# Introduction

- Interactivity in a computer products means that the user, not the designer, controls the sequence, the pace, and most importantly, what to look at and what to ignore.

# Information to Interaction



# Information to Interaction

- How to move from information design to interaction design ?
- Information design provides the logical organizing principles for the program information by detailing content and structure.
- Designing interaction turns the information design into a storyboard **which shows navigation pathways, media inclusions and controls.**

# Information to Interaction

HELAIAN STORYBOARD      MODUL NO.: 4      HELAIAN NO.: 7

<b>TAJUK</b>	Bahan Radioaktif
Subtajuk: (seperti dalam helaian 2 dan 4)	
<b>SUMBER IMEJ :</b>	
*BUKU/MAJALAH	Filename
*IMEJ PEGUN	Filename
*SLAID	Filename
*LAIN-LAIN	Filename
<b>ANIMASI :</b> Flying in	
* 2D <input type="checkbox"/> Filename	
* 3D <input type="checkbox"/> Filename	
BIL. FRAMES :	MASA : 25 saat
<b>KLIP VIDEO</b> —	
BIL. FRAMES :	MASA :
Filename	
<b>MUZIK</b> Forever in Love (Kenny G)	
MASA :	
Filename	
<b>EFEK</b> —	
<b>CATITAN</b>	
*B/GROUND	Filename
*JUMLAH MASA :	60 saat

**LAKARAN GRAFIK**

Bahan Radioaktif

Objektif

Pengenalan

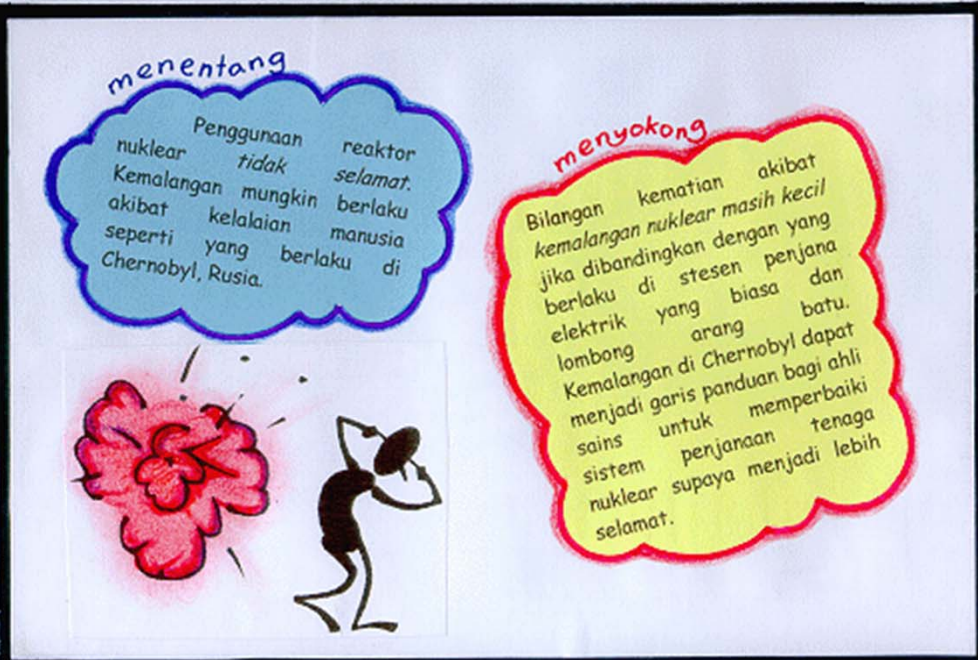
Modul 1

Modul 2

Modul 3

**Modul 4**

Penilaian



SAVE   PRINT   BACK   NEXT   EXIT   HELP

**NOTA / ARAHAN**

- Klik teks 2 kali untuk mendapatkan ayat-ayat di atas.
- Klik "Back" untuk kembali ke perbahasan sebelum ini dalam helaian 6.
- Klik "Next" untuk ke perbahasan seterusnya dalam helaian 8.

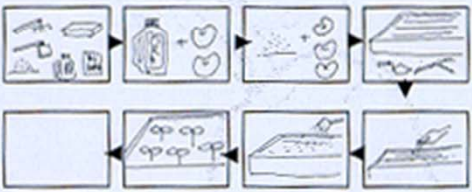

**SKRIP**

(seperti di atas).

**SUARALATAR/NARASI**

storyboard

# Information to Interaction

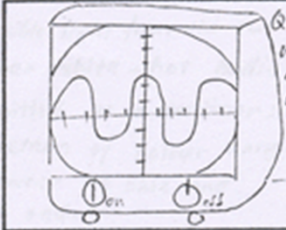
<b>TAJUK : Semaian Benih Halus – Cara Menyemai</b>	<b>BIL: 10b</b>
<p style="text-align: center;"><b>SEMAIAN BENIH HALUS</b> ~ Cara Menyemai ~</p> <p>Di sebelah kanan anda terdapat beberapa keratan filem yang berkaitan dengan proses menyemai biji benih halus yang tidak tersusun. Mengikut pandangan anda, susun semula 8 filem ini</p>  <p style="text-align: center;">Setelah siap, sila tekan ENTER</p> 	<p><b>Keterangan / Arahan</b></p> <ul style="list-style-type: none"> <li>□ Skrin keluar secara 'Split Horizontal In' bersama dengan isi pelajaran</li> <li>□ Pengguna akan diminta melakukan aktiviti ini sebelum isi pelajaran yang lain dikemukakan.</li> <li>□ Pengguna diminta menggunakan tetikus untuk memindah filem itu.</li> <li>□ Setiap filem ini hanya berpeluang digerakkan sebanyak sekali. Filem itu akan kekal pada tempat itu walaupun jawapan salah</li> <li>□ Respon porsitif akan diberi jika semua betul. Respon negatif diberi jika salah</li> </ul>
<p><b>Keterangan Grafik:</b></p> <p>1. Warna latar belakang sama dengan skrin pertama. Warna teks untuk tajuk ialah biru. Warna teks untuk soalan yang dikemukakan ialah merah.</p>	<p><b>Keterangan Audio</b></p> <p>Muzik piano akan diiringi</p>

# storyboard

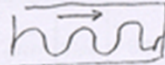


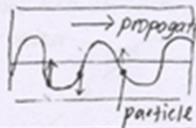
# Information to Interaction

**Transverse Wave**


1  Question: What can you see from the oscilloscope?

2 - this is a wave commonly seen in our daily life. But, basically have two types of wave motion. How can we recognize it?

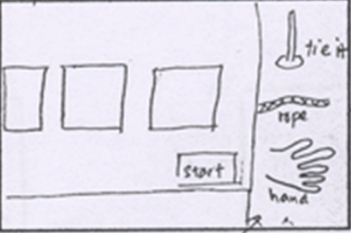
3  which type of wave motion is it?  
 transverse  longitudinal  
 click the answer.

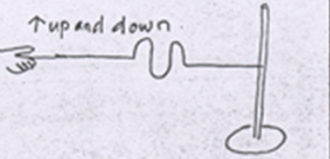
4 Note: Transverse wave.  
 → propagation direction  
 particle

5i Now, please category the type of wave motion  
 water  rope  spring  
 click to play!

5ii  water is a \_\_\_\_\_ wave.  
  
 Button close: click it to close this page.

6 Experiment 1:  
 Problem: How to generate a transverse wave?  
 Choose the material:  
 rope  spring  
 click

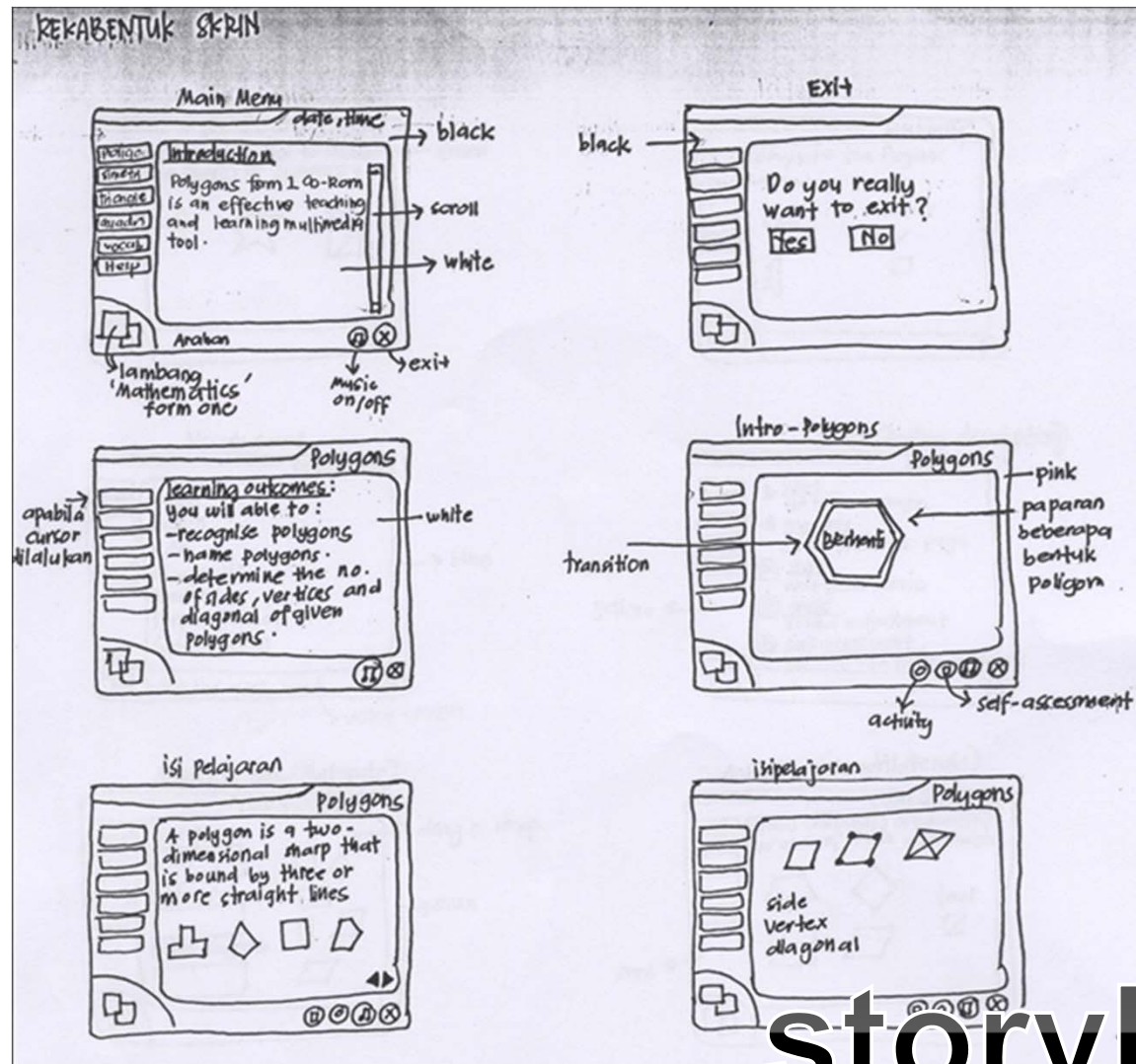
6i rope  
 tie it  
 rope  
 hand  
 start  
 Drag and arrange it in the correct frame.

6ii  ↑up and down  
 Conclusion: One complete \_\_\_\_\_ wave is generated.

• Background: Science Lab.  
 • only can choose one material.

# storyboard

# Information to Interaction



# storyboard

# Information to Interaction

- Moving from information design to interaction design means **turning information into an experience.**
- This means:
  - ?????? Discuss is a group....

# Interaction Design in Courseware Design

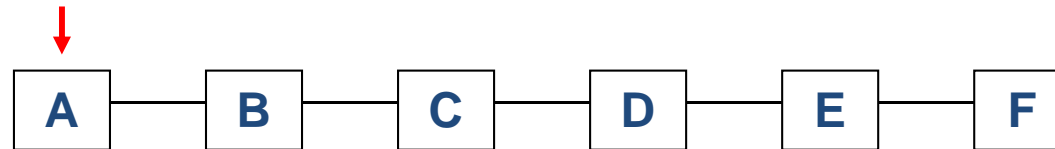


# Introduction

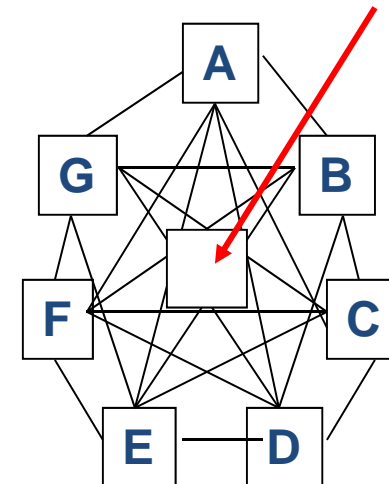
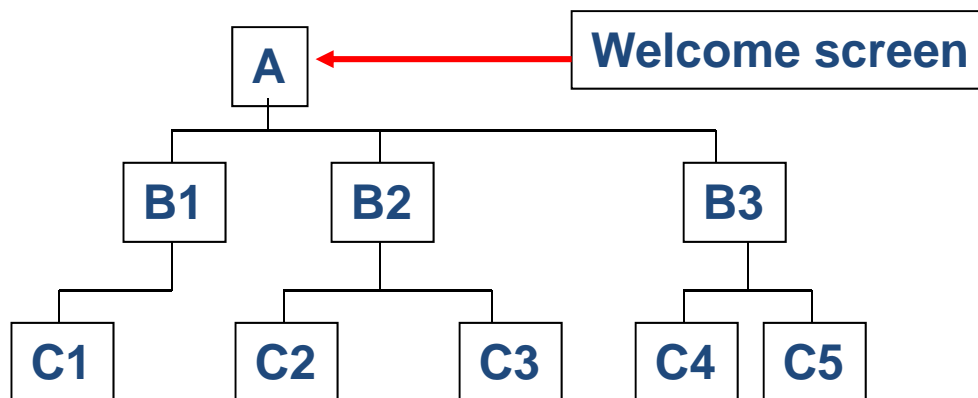
- What are the **basic elements** in Interaction Design.
- Three essential elements:
  1. **Organization** – How the information will be organized on the courseware ?
  2. **Navigation** – How people will find their way around your courseware?
  3. **Interactivity** – What controls you give your users to work with ?

# Interaction Design: Organization

Welcome screen



Welcome screen



# Interaction Design: Navigation

- What is effective navigation in courseware design?
- How I can create an effective navigation system for my courseware?
- Discuss about this statement (Orientation):
  - In order to navigate effectively, users need to know where they are in the context of the overall courseware structure. One way to help users orient themselves is by reinforcing placement, or position.
  - How you can help user orient themselves in your courseware?

# Interaction Design: Navigation

- What is effective navigation ?
- Effective navigation provides enough location information (Orientation) to let users answer the following question:
  1. **Where am I?** - let the user know their current page/screen.
  2. **Where can I go?** – let users know where they are in relation to the rest of the courseware.
  3. **How do I get there?** – provide consistent, easy to understand link.
  4. **How do I get back to where I started?** – provide ways to let users return to their starting point.



# Navigation System

- Good navigation design will:
  - Minimise travel - create the simplest and shortest path between any two points.
  - Minimise depth - create a hierarchy with the fewest possible levels.
  - Minimise redundancy - avoid creating multiple paths to the same place from the same screen.

# Defining what happens

- Define what happens on each screen.
  - Designing access routes between topics and identifying relationships between sections
  - (dependencies) will enable you to outline what will (should) occur on each screen
  - How...???

# Thank You !

