# *Designing and Using Visuals in the Classroom*

This job aid is designed to help you create and use effective visuals to enhance your lectures and presentations. It will:

☑ describe how effective visuals can enhance your teaching

☑ describe best practice techniques for the design of visuals (text and graphics)

☑ provide guidelines on the use of sound and animation in PowerPoint presentations

☑ provide guidelines for using visuals during a lecture.

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# Why use visuals?

Visual aids communicate an instructional message with an image. Research shows that people remember:

> **20%** of what they **HEAR**
>
> **30%** of what they **SEE**
>
> **50%** of what they **SEE & HEAR**
>
> *Jim Stice*
> *1987, University of Texas in Austin*

PowerPoint slides and overhead transparencies (OHTs) are useful visual aids for all sizes of classes provided they are well designed and appropriately used. They are cost-effective and quick to produce, and most classrooms are equipped with the means to display them.

Visual aids can be used to:

- organize your lecture or presentation
- provide interest and motivation for your students
- increase retention of information and learning
- save instructional time and preparation time because they can be reused
- aid communication
- explain the relationships of parts to the whole
- clarify something difficult, complicated or very large or stress very important points.

If you are using PowerPoint to design your overheads, you can automatically print the outline view and print 2, 3, or 6 frames per page. Both methods make excellent note-taking guides.

# Creating effective visuals

When designing visuals (or any other instructional aid) you must decide:

- if, why and how a visual should be used
- the audience to whom it is being shown
- the medium being used for the visual

The following tips are useful for all visuals used in the classroom. Some visuals will require more thoughtful design than others.

## Key Principles

Apply the following six principles to the design of your visuals.

1. Chunk information—put similar materials together in manageable, sensible chunks. If information must be split over a number of slides or screens, consider reducing the size of the chunks you have.

2. Organize the content—use the basic principles such as simple to complex, known to unkown, knowledge to application. Include any image as close to the relevant content as is possible.

3. Relevance—be sure that the information or visual that you are using is relevant to the topic. Be able to give a rational reason for something to be in the visual. Just because the technology exists isn't a good enough reason to use a visual. Over use of PowerPoint is a common student complaint.

4. Importance—place the most important information early in your slides or visuals. Call attention to it in some way. Be sure it really is an important idea to include.

5. Appropriateness—consider the audience receiving the information, the material being presented and the medium you are using.

6. Visual effectiveness—keep your visuals simple so that they have the most impact.

## Making your visuals more effective

*Use the following checklist to ensure your visuals are effective.*

### Content—*I have*:

1. Checked the learning outcomes to establish what is needed ..........................❑
2. Carefully chosen the material and included essential details only ..................❑
3. Presented only one main idea per visual .....................................................❑
4. Applied for permission to reproduce copyrighted material ............................❑

### Format—*I have:*

1. Oriented the visuals to be wide (landscape) rather than tall (portrait) .............❑
2. Used templates where possible (effective design features built in) .................❑
3. Placed most important points at the top right or bottom left ..................❑
4. Used plenty of white or blank space, especially around images ...........❑
5. Presented numeric data in graph form with very clear formats .............❑
6. Placed OHTs in frames to make them easier to handle .......................❑

### Text—*I have:*

1. Used simple, clear language ................................................................❑
2. Used key phrases rather than long sentences .....................................❑
4. Used no more than 6 short lines per slide or OHT ...............................❑
3. Used no more than 6 words per line ...................................................❑

5. Considered using a series of slides or OHTs rather than a single one containing more than 36 words .............................................................. ❏

6. Used upper and lower case text, not all capitals .................................. ❏

7. Used a simple and consistent font throughout (sans serif fonts, e.g., Arial, Verdana, or Tahoma are easiest for viewing) ...................... ❏

8. Used different font sizes for emphasis and contrast, selecting a minimum font size of 24 pt. ................................................................... ❏

9. Used special effects like bold and drop shadows for emphasis, when appropriate ................................................................................. ❏

10. Used bullets as anchor points ............................................................. ❏

**Graphics—I *have:***

1. Used graphics rather than text whenever possible ............................... ❏

2. Chosen simple, clear images ............................................................... ❏

3. Labelled all important parts of each graphic ....................................... ❏

5. Shown a scale if the size of an object is hard to gauge ....................... ❏

6. Avoided showing only part of an object ............................................... ❏

7. Used clip art sparingly (e.g., every third or fifth slide) ......................... ❏

8. Stayed away from clip art for presentations that include charts, photographs, or drawings .................................................................... ❏

9. Used no more than one clip art image per slide ................................... ❏

**Colour—*I have:***

1. Used colour sparingly to highlight key features .................................. ❏

2. Used colours that are clearly visible and readable .............................. ❏

3. Limited meaningful colour coding to five colours ................................. ❏

4. Used strongly contrasted colours rather than similar ones ................... ❏

5. Used colour for separating, defining, and associating information ........ ❏

**Background (PowerPoint)—I *have:***

1. Chosen a background to enhance information, not overpower ............ ❏

2. Reserved multicolour, highly textured, or complicated backgrounds for text slides only ................................................................................. ❏

3. Used a consistent background throughout the presentation ................. ❏

4. Selected a light or dark background, based on the amount of light in the room (light backgrounds and dark text in well lit rooms; dark backgrounds and light text in rooms with lots of lighting control) ........... ❏

**Transitions (PowerPoint)—I *have:***

1. Avoided using a different transition for every slide, using special transitions here and there for effect and emphasis ............................... ❏

2. Set the transition speed to fast to give my presentation a snappier feel and pace ..................................................................................... ❏

**Sound and Animation (PowerPoint)—I *have:***

1. Used special effects sparingly for maximum impact ............................. ❏

2. Used sounds to serve a specific purpose—to compliment and further instruction ................................................................................ ❏

**Services to Industry**

- Performance Consulting
- Front End Analysis (FEA)
- Course Design
- Train-the-Trainer
- Job Aids and Course Materials
- Course Evaluation

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used key phrases rather than
long sentences

used no more than 6 words per line and
no more than 6 short lines per OHT

**Curriculum Development**

- Curriculum Redesign
- New Courses and Programs
- Existing Program Revitalization
- Teaching/Learning Materials
- Employability Skills

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**Learning Skills Development**

✔ time management
✔ reading skills
✔ study skills
✔ note–taking skills
✔ listening skills

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ensured that all type is visible from the
back of the room
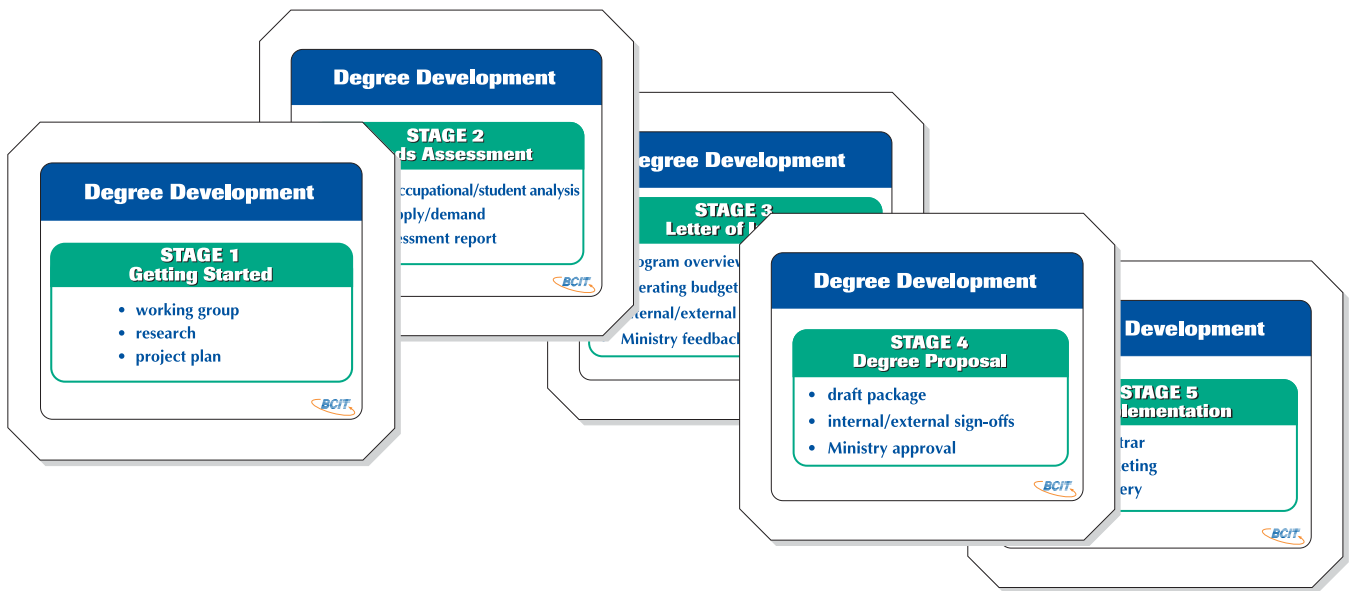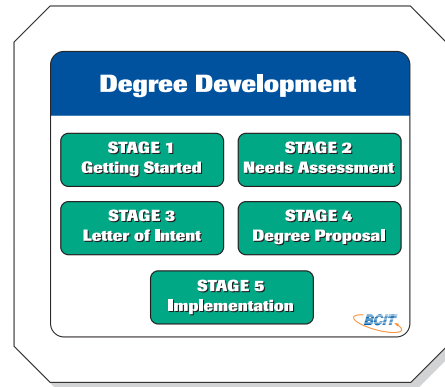(all lettering should be at least 1/4" high or 24 pts)

left plenty of white
space around images

Clients

BCTEL

BCGas

SIMENS

Dairyworld

GP
Georgia-Pacific

used a series of OHTs rather
than a single OHT
containing more than 36 words

**Degree Development**

| STAGE 1 Getting Started | STAGE 2 Needs Assessment |
| STAGE 3 Letter of Intent | STAGE 4 Degree Proposal |

STAGE 5 Implementation

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**Degree Development**

STAGE 2
ds Assessment

ccupational/student analysis
pply/demand
essment report

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**Degree Development**

STAGE 1 Getting Started

- working group
- research
- project plan

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egree Development

STAGE 3
Letter of I

gram overvie
erating budget
ernal/external
Ministry feedbac

**Degree Development**

STAGE 4 Degree Proposal

- draft package
- internal/external sign-offs
- Ministry approval

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Development

STAGE 5
lementation

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**Where Are We?**

used a graphic rather than text

*On the next page are some tips on using visuals during your lectures.*➔

# Using visuals

**Preparing the room and equipment—*I have:***

1. Checked that the overhead projector and screen or digital projector and computer work reliably ................................................................................... ❑

2. Brought spare projector bulbs and know how to install them ............................... ❑

3. Checked that the lighting in the room is appropriate or adjustable (I may need to switch lights off above the front row) ...................................... ❑

4. Ensured that wiring and plugs are safe to use ................................................. ❑

5. Focused the image .......................................................................................... ❑

6. Checked that all OHTs or slides are readable at the back of the room (Audience distance should be no greater than 6 times image width) .................... ❑

7. Checked that I can tilt the screen to prevent distorted images ........................... ❑

8. Located the telephone number for AV Services (local 8780) .............................. ❑

**Preparing visuals for delivery—*I have:***

1. Used the checklists on pages 3-5 while creating my visuals .............................. ❑

2. Included a visual to start with that outlines the topic ......................................... ❑

3. Made printed copies of the visuals as student handouts*. ................................. ❑

4. Layered together sets of overlays to show complex information .......................... ❑

5. Numbered the OHTs to indicate the order of use ............................................... ❑

6. Noted additional comments on the frames of the OHTs or in the Notes section of PowerPoint ......................................................................... ❑

7. Prepared an alternative strategy in case the equipment fails. ............................ ❑

**Delivery—*I have:***

1. Practised using the projector smoothly and efficiently ....................................... ❑

2. Used the fade button when not in use to avoid distracting the students with a blank screen ........................................................................... ❑

3. Checked that there is space to stand to one side facing the class so that the screen is not obscured by me or my shadow ...................................... ❑

4. Brought a pencil or other pointer to indicate sections of the OHT as I speak (I point at the OHT, **not** the screen) ...................................................... ❑

5. Used PowerPoint transitions or planned how to gradually reveal any lists on an OHT as I speak .............................................................................. ❑

6. Noted that I must shoulder-check that the images remain clear and correctly placed as I speak ............................................................................ ❑

7. Brought some blank OHTs and a pen in case I need to illustrate something extra .............. ❑