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The PLUS model and the web

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Having read this chapter, you will be able to:

- use the PLUS model when teaching students how to use the web and other resources
 - improve your students' use of the web through their use of brainstorming and concept mapping
 - improve your students' use of the web through their use of keywords in searching for information
 - improve your students' skills in reading websites and taking notes
 - improve your students' use of the web in writing and presenting
 - teach your students how to evaluate their own use of the web and other resources
 - develop an in-service training session based on the PLUS model.
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Introduction

The PLUS model can be seen as an example of how to develop information literacy amongst students in schools. Todd (2003) argues that information literacy 'is about the systematic and explicit provision of a range of intellectual scaffolds for effective engagement and utilisation of information in all its forms (electronic, print, popular culture) and for constructing sense, understanding and new knowledge'.

Barrett and Danks (2003) state that "Scaffolding" is providing a structure for students that will support their learning and their application of skills.'

As was seen in Chapter 5, the PLUS model can provide students with a positive and easy-to-understand structure or scaffold which they can use to enhance their learning when doing assignments. The PLUS model has been used in

schools to focus students' attention on the need for careful use of the web for finding and using information. One of the problems faced by teachers and school librarians across the world is that students often use the web in the *same* way that they use books and CD-ROMs. The problem lies in the fact that the web is so much bigger and less reliable than the school library catalogue, books and CD-ROMs. A student searching the library catalogue or a CD-ROM for information about the causes of earthquakes can be reasonably sure that using the search terms **earthquake** and **causes** will not result in thousands of hits. Similarly, using a book index will take the student to a limited number of sources of information. Therefore, students have to be taught that using the web requires a *different* approach in some ways. The main differences will be that students will have to define their searches more clearly, to be more selective in their choice of websites found and to realize that websites, unlike books and CD-ROMs chosen for the school library, are *not* mediated by a teacher or school librarian.

All four elements of the PLUS model – Purpose, Location, Use and Self-Evaluation – need to be used by students whether they are using print or electronic sources of information, but some aspects need to be emphasized more when students use the web. This chapter will highlight the use of the PLUS model in three UK schools, providing teachers and school librarians with a practical guide to using the model when teaching students about using the web. In particular:

- encouraging students to use brainstorming and concept mapping in defining purpose
- improving students' searching skills in locating information
- developing students' reading skills, note-taking skills and writing/presenting skills when using information
- showing students the benefits of self-evaluation
- developing in-service sessions for using the PLUS model in schools.

Examples from schools using similar approaches will also be provided.

Purpose

One of the most common criticisms that teachers make about student assignments is that the student has not focused clearly on the topic and that this has led to an assignment which is not well thought-out, well researched or well

organized. This can often be due to the fact that the student has not clearly identified what the purpose of their assignment is. Teachers and school librarians seek to encourage critical thinking in their students by presenting them with assignments where students are guided to some extent but are also given some freedom of choice. McKenzie's (2000) Questioning Toolkit is a useful place for teachers and school librarians to start to look for ideas on how to encourage student learning by allowing students to impose their own questions in relation to topics they research for assignments.

One important aspect of questioning for students is for them to ask about the *purpose* of their assignment, with questions such as:

- What is it that I am being asked to do?
- What is my assignment *really* about?
- What is my assignment *not* about?
- What do I already know about my topic?

At St Ivo School, students are encouraged to brainstorm questions relating to a Religious Education project before going on to use websites selected and evaluated by the teacher and the school librarian. Figure 6.1 shows part of an intranet website used by students doing this project.


At Ripon Grammar School, students use the PLUS model from their first year at the school (year 7, age 11–12) until they leave. In this school, 'Purpose' is replaced by 'Planning' because students preferred this term. Figure 6.2 shows the first part of the guidelines provided to students when starting an assignment.

Brainstorm: What do you know? Find your keywords

<p>Q. Who goes on Hajj? _____</p> <p>_____</p>	<p>Q. Where do pilgrims go on Hajj? _____</p> <p>_____</p>
<p>Q. From what religion does this come? _____</p>	

Web-site addresses for working at home:
<http://islamicity.com/mosque/hajj/>
www.geocities.com/TheTropics/Cabana/7086/hajj.html
<http://channel4.com/life/microsites/H/hajj/index.html>

Figure 6.1 Brainstorming advice to students at St Ivo School, Cambridgeshire, UK



PLANNING my work

NAME _____ FORM _____

My topic is _____

My research is for what purpose? (What do you need to produce from the information you find?)

My work must include: (How much information do you need? In what format, i.e. do you need pictures, etc.?)

My final written work will be written for what audience? (At what level will you need your information to be?)

How much time do I have to do this work ?
My research must be completed by _____. My final written work must be completed by _____.
I will have ____ lessons and ____ homeworks to complete this work.

My work must be ____ word processed ____ hand written ____ either word processed or hand written.

I must remember that I will be marked on my research notes as well as my final product.

Figure 6.2 Guidance to students starting an assignment at Ripon Grammar School, North Yorkshire, UK

This encourages students to think about the *process* that they are about to go through and not just about the content of the assignment. Students are then encouraged to write down what they know about their topic and to brainstorm the topic by themselves or with other students. One of the outcomes of this brainstorming is a concept map.

Concept mapping is now accepted as a tried and tested method which can be used by both teachers and students. Conlon (2002) states that concept maps

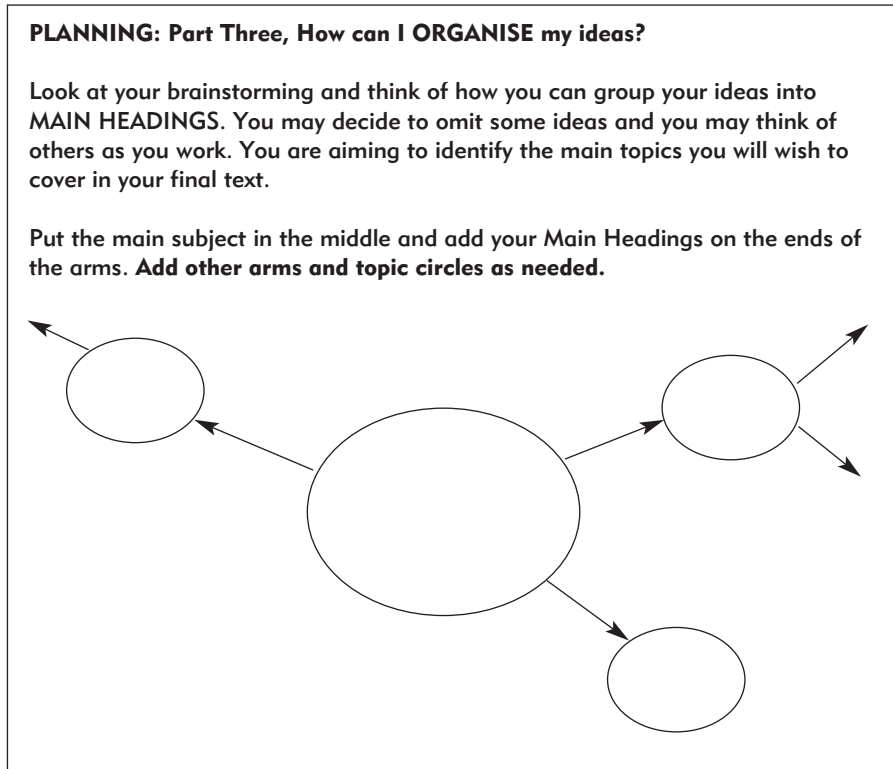


Figure 6.3 Concept map from Ripon Grammar School, North Yorkshire, UK

‘are powerful classroom tools which can be used by teachers and pupils. ... Pupils can create ... [concept] maps for purposes that include summarising subject matter, supporting discussion and reflection, and recording and planning independent study.’

Conlon also notes that concept maps encourage students to learn ‘transferable thinking skills’. At Ripon Grammar School, students are provided with what Conlon calls a ‘*Tabula Rasa* (“blank slate”)[which] involves the creation of a map from scratch’. Figure 6.3 shows an example of a blank concept map.

Conlon also alludes to: ‘Scaffolded mapping tasks ... in which elements of the map are provided by the teacher, leaving the learner to supply the rest. The intention is to provide support (certainly to prevent floundering) and constrain the learner’s thinking to “productive” directions.’

At the Jack Hunt School, which also uses the PLUS model at all levels of

Jack Hunt School – Library Resource Centre
Spanish Research

Complete the following spider diagrams:

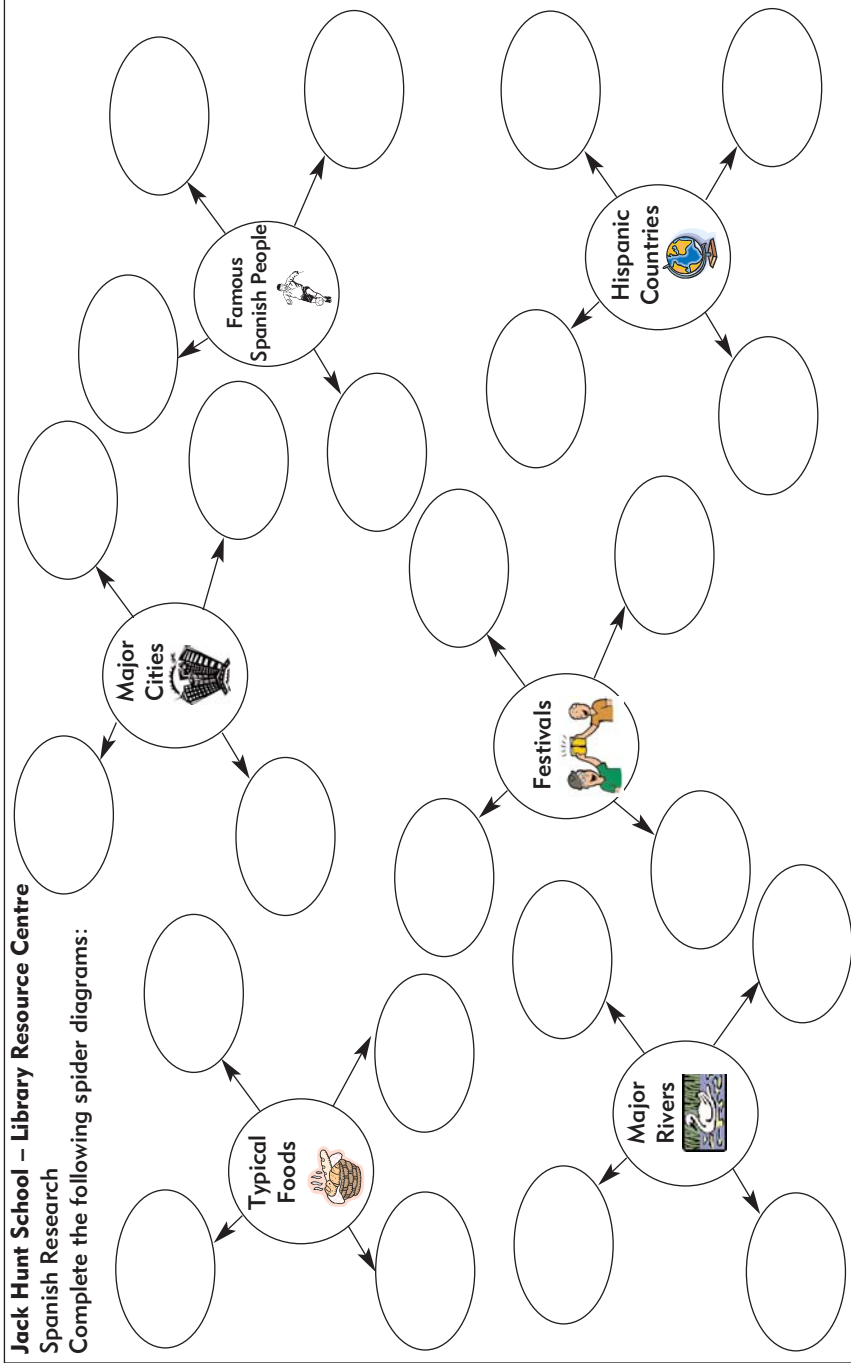


Figure 6.4 Scaffolded concept map from Jack Hunt School, Cambridgeshire, UK

the school, scaffolded mapping is used as part of the Purpose stage for students. Figure 6.4 shows an example used with students doing a project on Spain.

The final part of Purpose is for students to identify keywords from concept maps or lists of questions. Figure 6.5 from Ripon Grammar School combines these two elements.

A similar approach to this element of the PLUS model is taken by Gladstone Secondary School, Canada, where students are provided with a useful checklist which will help them to identify a clear purpose. Figure 6.6 shows this checklist.

From these examples, it can be seen that teachers and school librarians will improve their students' learning skills, including mapping skills, questioning skills and planning skills, by focusing students' attention on identifying a clear purpose for their assignment. It will be seen in the rest of this chapter how crucial Purpose is to the information skills process, as all other actions taken by students relate back to this initial step. Students who go straight to searching the web without a clear purpose are doomed to failure and frustration as the results of their searching may well be mostly irrelevant to their topic.

ASKING QUESTIONS: Now that you have worked out what you know about your topic, it is time to decide what exactly you need to research. So ... what do you need to find out??? This is a very important step as asking the right questions will guide you in choosing the best resources and finding information quickly and effectively. Aim for 5-7 good questions.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Can you think of any **KEYWORDS** to use to look for in the index of a book or on a Search Engine search window?

Figure 6.5 Student questioning from Ripon Grammar School, North Yorkshire, UK






THE RESEARCH QUEST: STUDENT CHECKLIST	
Name: _____ Teacher: _____ Block: _____ Assignment: _____	
FOCUS 	TO FOCUS MY RESEARCH PROJECT, I have identified: <ul style="list-style-type: none"> <input type="checkbox"/> My research challenge and my purpose <input type="checkbox"/> Critical questions <input type="checkbox"/> My audience <input type="checkbox"/> What I already know and what I need to know <input type="checkbox"/> What my product might be <input type="checkbox"/> A plan for my time
FIND AND FILTER 	TO FIND AND FILTER RESOURCES FOR RESEARCH, I: <ul style="list-style-type: none"> <input type="checkbox"/> Located different resources (print and electronic) <input type="checkbox"/> Decided which resources might be suitable <input type="checkbox"/> Selected the most appropriate resources <input type="checkbox"/> Revised my research questions (if necessary)
WORK WITH INFORMATION 	TO WORK WITH THE INFORMATION I FOUND, I have: <ul style="list-style-type: none"> <input type="checkbox"/> Read (viewed, listened to) the information <input type="checkbox"/> Interpreted, recorded, and organized <input type="checkbox"/> Looked for patterns and made connections <input type="checkbox"/> Checked that I understand the information <input type="checkbox"/> Reviewed, revised, reorganized, edited
 COMMUNICATE	TO COMMUNICATE THE RESULTS OF MY WORK, I have: <ul style="list-style-type: none"> <input type="checkbox"/> Prepared my final results <input type="checkbox"/> Shared my new ideas, knowledge, or product <input type="checkbox"/> Acted on the findings
REFLECT 	TO REFLECT ON THE RESEARCH I UNDERTOOK, I have: <ul style="list-style-type: none"> <input type="checkbox"/> Decided what I have learned about the topic <input type="checkbox"/> Determined what I did that worked well <input type="checkbox"/> Figured out what I will do differently next time <input type="checkbox"/> Reviewed what I have learned about researching
Based on model developed by BCTLA and adopted by the Ministry of Education, January 2001 © Gladstone Secondary School Library 2002-2003	

Figure 6.6 Student checklist from Gladstone Secondary School, Canada
 (<http://gladstone.vsb.bc.ca/library/infolit/RESQUEST%20checklist.doc>)