## Lesson Plan

### Title: Finding and Managing Information

<table>
<thead>
<tr>
<th>Stage / School: Stage Two - SNES</th>
<th>Date of session: Autumn</th>
<th>Duration: 2 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Session: Workshop</td>
<td>Number of students expected: 50</td>
<td></td>
</tr>
</tbody>
</table>

**Context** *(Is this session part of a series? Is it for a particular assignment?):*  
Students are set an assignment where they need to include a search strategy as an appendix. Students are new to EndNote and will need to demonstrate they are using it in their assignments.

**Aim(s)** *(What is the purpose of the session?):*  
To introduce students to more advanced search techniques, including how to plan an effective search strategy; to recap referencing skills and introduce students to EndNote.

**Learning outcomes** *(what the students will be able to do by the end of the session?):*  
Students will be able to:

- Develop their own search strategy
  - apply BOOLEAN searching (Combining key words with AND/OR/NOT).
  - begin to use synonyms for key search terms to expand search results.
  - use the refining and limiting options in a range of resources.
- Describe the currency, relevance, accuracy, authority and purpose of potential sources of information, making appropriate selections for their needs.
- Construct an accurate reference for range of information types in their discipline
- Create their own EndNote library
- Import references from a variety of databases
- Use EndNote in Word to ‘Cite While You Write’
- Find help and know where to access further support.

**Pre-session work required by students:**  
Students should be in their project groups and have begun to think of a title for their research.

**Resources Embedded on Blackboard:**
- Session slides and workbooks
- Search Planner
- Google like a Pro video
- Cite Them Right Tutorial
- EndNote Workbook
<table>
<thead>
<tr>
<th>Timings</th>
<th>Content/topic</th>
<th>Teacher Activity</th>
<th>Student Activity</th>
<th>Resources used</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 min</td>
<td><strong>Introduction and objectives</strong></td>
<td>Explaining / Facilitating poll</td>
<td>Listening / taking part in poll</td>
<td>Slides Mentimeter</td>
</tr>
<tr>
<td></td>
<td>Introduce the session, discuss how it will support their work, particularly in assignment 3 by looking at the marking criteria. Run Mentimeter poll for students to self-assess their confidence with Learning Objectives.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 min</td>
<td>The Research Cycle</td>
<td>Explaining</td>
<td>Listening</td>
<td>Slides</td>
</tr>
<tr>
<td>(5 min)</td>
<td>Describe the research cycle and emphasise how we will follow this structure through the session, with demonstrations and activities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 min</td>
<td>Planning a search:</td>
<td>Explaining</td>
<td>Listening</td>
<td>Slides</td>
</tr>
<tr>
<td>(7 min)</td>
<td>Developing your Question – breaking down a topic.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide overview of how to break down a topic from broad idea to specific question that can be answered in an assignment (example topics tailored to group – see slides)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 min</td>
<td>Keywords and Synonyms</td>
<td>Explaining</td>
<td>Listening</td>
<td>Slides</td>
</tr>
<tr>
<td>(9 min)</td>
<td>Take example question and identify keywords. Explain that while these are the words we’ve chosen to use to describe the topic, researchers may have used others so to make sure we can find relevant information we need to also search for synonyms and related terms.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 min</td>
<td>Activity – synonyms</td>
<td>Explaining / Facilitating activity</td>
<td>Listening / Discussing / Describing</td>
<td>Slides Wind Farm Image Mentimeter</td>
</tr>
<tr>
<td>(14 min)</td>
<td>Display an image of a wind farm on the screen and explain task.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students to work on their own to come up with as many words or phrases as possible to describe the picture (30 seconds) then combine with partner and think for a further 30 seconds. Add ideas to Mentimeter word cloud.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Look at range of responses – highlighting how all of these terms could be used to search for the topic of ‘Wind Farm’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highlight useful places to find synonyms if you’re stuck (online thesaurus, keywords / subject terms on Library search and Google Scholar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 min</td>
<td>Controlled vocabulary</td>
<td>Explaining / Demonstrating</td>
<td>Listening / Following along on PCs</td>
<td>Slides Cab abstracts example</td>
</tr>
<tr>
<td>(16 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Explain that some databases use 'controlled vocabulary'. Highlight the difference between free text and controlled vocabulary and demonstrate using Cab abstracts.

**Advanced Search Techniques** – truncation, wildcards and phrase searching

Explain that once we have our keywords, there are some useful tools we can use with them to make our searches more effective... Look at three techniques then apply to example.

**Activity – BOOLEAN 'stand up...sit down...' game**

Another technique is to use BOOLEAN (AND, OR NOT)

Explain how the game works. Students to act as a database and help me answer my questions about hot drinks...

Stand up if
- you are a student AND drink tea
- you are a student AND drink tea AND drink hot chocolate
- you are a student AND drink tea OR Coffee
- you are a student AND drink hot drinks NOT tea

**Constructing a search string**

Model how to use BOOLEAN to construct different search strings using our example. Emphasise the need to reflect and review the effectiveness of the search strings used.

**Types of Information**

Final step of planning a search is to think about what kind of information you need to search for. Highlight range of information types relevant to subject area (e.g. legislation, company information/market research) and how to find the Subject and Resource Guides.

**Activity – Search plans and search strings**

In pairs, students compare two search plans, identifying the best and making suggestions for improving the other. Students then use the plans to produce three example search strings they could use in a search.
| 2 min (50 min) | **Search Planner**  
Model accessing and using the Search Planner tool on our online guide. Highlight that this can be used for assignment 3 appendix. | Explaining / Demonstrating | Listening / observing | Slides Search Planner / Dissertation Guide |
| 10 min (60 min) | **Conducting a Search**  
Using Library Search  
How to use example search string in Library Search. Highlight search limiters, range of information types and discuss usefulness of results  
Demonstrate depending on subject relevance:  
Simple search: Sheep AND Breeding  
Advanced Search: sheep AND breeding AND profitability  
OR  
Simple search: Moorland AND conservation  
Advanced search: Moorland AND (Conservation OR Protection) AND Burning | Explaining / Demonstrating | Listening / observing | Library Search |
|  | **Using Google Scholar**  
Repeat above demonstration using Google Scholar.  
Highlight how to access materials using the @NCL button.  
Play Google like a Pro video to give extra tips for searching with Google. | Explaining / Demonstrating | Listening / observing | Google Scholar Google Scholar Video |
| 1 min (71 min) | **Evaluating Information**  
Discuss 6 questions to help evaluate a resource. | Explaining | Listening / observing | Slides |
| 15 min (86 min) | **Activity** – search, reflect, repeat  
Students to use examples from search plan activity and test their search strings in Library search or Google Scholar – reflect on results, edit strategy and repeat. (making notes on their handout – this can also be used in their assignment appendix.) | Explaining task, provide handouts.  
Circulate to provide support with activity and check understanding | Applying their search plan / Evaluating their search plan and results | Worksheet PC cluster / Devices |
| 10 min (96 min) | **Managing Information**  
Referencing | Explaining | Listening / observing | Slides Cite Them Right |
Discuss why students need to reference and recap what referencing involves (in-text citations and reference lists).

Demonstrate using Cite Them Right to reference an article.

Point out ‘citation’ options on Library Search and Google Scholar.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Time</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 7 min (106 min) | **EndNote**  
- Introduce EndNote as a tool, where to access it and where to find help on the EndNote Guide.  
- Demonstrate how to set up a Library, add a citation from Google Scholar into Library and then how to add this into Word using Cite While You Write. | Share Golden Rules of using EndNote / top mistakes | Listening / observing | Slides EndNote Google Scholar |
| 15 min (116 min) | **Activity – Setting up EndNote**  
- Point to workbook uploaded to VLE that will help Students get set up. Students follow instructions in workbook to set up their EndNote Library. | Explaining / Facilitating task. | Creating an EndNote Library and populating it with references. | EndNote workbook |
| 2 min (120 min) | **Plenary**  
- Explain where to go for further help.  
- Time for questions.  
- Re-run mentimeter poll from beginning of session for students to self-assess confidence with Learning Objectives at the end of the session. | Explaining / Answering Questions / Facilitating poll | Listening Ask any questions Complete poll | Slides Mentimeter poll |