GUIDELINES FOR TRAINING OF IL TEACHERS/PRACTITIONERS

Information Literacy Cranfield Modules
http://info-it.shrivenham.cranfield.ac.uk/index.html
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1. INTRODUCTION
These guidelines regarding the teaching of Information Literacy are based upon the documents already elaborated within the project, namely:

- Integrating Information Literacy into Academic Curricula of Balkan Countries Universities: transitional, transferable, transformational.

- Information Literacy Courses Content: transitional, transferable, transformational.

We also consider the courses content and their structure, as well as the provided examples which are adapted to these materials. The material offers several elements of general teaching practice and teaching methods applied to the particularities of Information Literacy. The SCONUL Information Literacy standard is presented and also teaching methods for deepening and creating the skills described by the standard. Some planning methods for courses, training plans, preparing notes, teaching forms and lectures forms of presentation are described.

There is no shortage of information concerning the use of specific instruments based upon new technologies, such as online Information Literacy modules, tutorials, movies and software for checking and avoiding plagiarism and these are also covered in these guidelines. An important chapter is dedicated to all forms of evaluation: of students, professors, lecture quality and students’ knowledge. The material represents only an example of support that may be improved, completed and adapted to the requirements of each user’s group: professors, librarians and other categories.

2. INFORMATION LITERACY STANDARDS
Figure 1 below presents standards to be achieved by Information literacy as per the well-known SCONUL Information Literacy model.

How to use this model
The model is conceived as a three dimensional circular “building”, founded on an information landscape which comprises the information world as it is perceived by an individual at that point in time. The picture is also coloured by an individual’s personal information literacy landscape, in other words, his/her aptitude, background and experiences, which will affect how he/she responds to any information literacy development.

The circular nature of the model demonstrates that becoming information literate is not a linear process; a person can be developing within several pillars simultaneously and independently, although in practice they are often closely linked.
Each pillar is further described by a series of statements relating to a set of skills/competencies and a set of attitudes/understandings. It is expected that as a person becomes more information literate he/she will demonstrate more of the attributes in each pillar and so move towards the top of the pillar. The names of the pillars can be used to map across to other frameworks (for example, the Researcher Development Framework (Vitae, 2010)) or to describe part of the learning process.

3. EMBEDDING INFORMATION LITERACY

Embedding IL in your University should follow three broad strategies (Peacock 2007) with Strategy 3 being the favoured strategy offering full embedding of IL across all courses:

3.1 Strategy 1: extra curricula (supplemental)
Extra curricula information literacy learning activities develop generic enabling skills and are supplemental to the core curriculum of students. Typically, these activities take the form of lectures, workshops and short courses on basic information skills, which are designed and delivered by library teaching staff and attended at the discretion of each individual student. Information literacy content is generic (e.g. discipline-neutral) and non-targeted (i.e. not aligned with any unit and/or course). If applicable, assessment is formative only and designed to provide immediate feedback to students for their own learning. The outcome is short-term functional application of basic information skills (Badke 2009).

3.2 Strategy 2: inter curricula (integrated)
Inter curricula information literacy learning activities develop specific enabling skills linked to the core curriculum of students. As with Strategy 1, these activities generally take the form of lectures, workshops and/or short courses on basic information skills which are designed and delivered by library teaching staff but in consultation with, or at the request of, the individual teaching academic. Teaching events are typically attended by groups of students as a study requirement and may not be scheduled into unit/courses timetables. Information literacy content is generally contextualised within a unit curriculum or discipline and timetable (i.e. discipline-related) and targeted to the broad but immediate needs of students in a single study area. Where required, assessment is generally summative in nature, supplemental to primary assessable requirements and may be assigned a nominal to moderate weighting. The outcome is a task-specific application of basic information skills.

3.3 Strategy 3: intra curricula (embedded)
Intra curricula information literacy learning opportunities develop transferable skills embedded within the core curriculum of students. The learning and application of information skills and practice may still occur via varied standard formats. However these learning opportunities and experiences are designed, delivered, assessed and evaluated via collaborative partnerships between academic and library teaching staff.

In this strategy, students are engaged in embedded learning of information literacy. The learning activities are specifically attached to curriculum content, involve active learning, and are meaningful and relevant to the students in this context (McGuinness 2013: email correspondence). Conceptual knowledge and skills development is addressed within the full curriculum of a course, in each associated unit of study within that course, and across all year levels. Information Literacy content is always contextualised within the content and assessment of a single unit as connected to multiple units within a course (i.e. discipline driven) and targeted to the specific and immediate long term needs of students in each unit/course. Assessment elements of the unit/course are a combination of formative and summative mandatory requirements of the unit/course and are weighted accordingly. Through recursive and iterative learning opportunities, the outcome is deep, durable learning and transferable understanding and application of complex information literacy concepts and skills.

3.4 Starting out: embedding and integrating your teaching into curricula
Where possible, IL training should be embedded within the subject curriculum to maximise relevance, timeliness and student motivation. Stand-alone sessions are less effective; it can be...
difficult for a learner to transfer a skill practised in a generic environment into a subject-specific context.

Ideally, your session(s) will be timetabled within the module. IL should be included in the learning outcomes of the module and any assessment should incorporate an element of testing IL skills (see Section 22 Assessment).

4. PREPARING AND REVIEWING YOUR TEACHING
(The following sections come courtesy of the University of Texas at Austin Tips and Techniques for Library Instruction, University of Austin 2013).

4.1 Teaching philosophy
Many instructors have never thought introspectively about learning and teaching. Developing a teaching philosophy will help reveal your personal approaches, priorities and objectives. Putting your philosophy in writing will help you reflect upon your style and will provide a foundation for setting and achieving your future teaching goals. This statement should be a work in progress - revisited, reviewed and revised periodically to facilitate personal growth and adapt to your evolving beliefs and ideas about teaching.

4.2 Get the content right
Try to ensure your session content flows from what the students have just been doing in the module into what they will be doing next. Ensure that your teaching is relevant and timely, that the learning will address real needs and that the context is authentic. If possible, try to sit in on a module session preceding yours.

4.3 Librarians and academic staff must collaborate for IL
Working together they are best placed to develop many IL components; academics particularly can help students evaluate and analyse critically the information identified in your session. Librarians must liaise with lecturers to design the curriculum so that students need to find and read the information and use it for a specific purpose (e.g. for an essay, report or presentation).

4.4 Opportunities for reinforcement
Students need the opportunity to repeat the process of finding, evaluating and using information for an assessment as soon as possible after your session. If the assessment is for another module, the links between your teaching in the one module and the expectations of the tutors in the other need to be expressed very clearly.

4.5 Assessment
Use assessment tools which are integrated, such as research trails or i-maps accompanying an assessed essay, rather than non-embedded assessments, such as the creation of a bibliography on a set topic (see Section 22: Assessment).
5. CONTACTING THE FACULTY MEMBER
(Note: this section applies to instruction that is not embedded. Fully curriculum-integrated instruction involves a long-term collaboration where frequent and continuous contact and is preferred. Contact faculty at least one week before session, if possible).

5.1 Begin by settling the logistics

- What are preferred and alternate session times?
- Where will it be taught? (Their regular classroom? If so, is it a hands-on room? In one of the libraries? Is there another hands-on classroom available?)
- Will this be a required session for the students?
- How many students are in the class?
- Will you be sharing class time with the instructor, or is he/she allowing you the full class period?
- Will the instructor be present for the session?
- Will you send me a copy of the syllabus and the assignment they will be working on?

Identify what skills your students already possess and in which areas they need instruction. Remember, it is best to schedule an instruction session at the point of need - at the time a student is preparing for an assignment. Before speaking with or emailing faculty, it is helpful to create a checklist of questions you have. This checklist might include:

- Will they have chosen their research topics by the time of the session? Will you send me a list of them before the session? (This will allow you to create demo searches that do not replicate any student topics)
- Are your students required to use a certain number and/or type of source (Web, scholarly, 3 articles, 1 book)?
- What are some skills that you hope your students will acquire?
- What year are your students (Undergraduate? First Year? Final Year? Postgraduate?)
- Are there specific concepts, resources or databases you would like me to teach?
- Are there concepts that are unclear to them? Barriers they have in the research process?
- Do your students have any special needs (e.g., visually or hearing impaired students, etc.)?

5.2 Teaching philosophy - components

Although your teaching philosophy can be written in any form or style, it should include some basic elements. Begin with a statement about how you feel people learn most effectively. Next, discuss the approaches you take to help students learn the material and skills that you want to impart. Conclude with goals toward which you are working.

The following are some questions to consider as you write you philosophy:

- How does learning take place?
- What are elements of effective learning environments?
- How should teaching be conducted to facilitate and maximize the learning process?
- What is the student’s role in this process?
What is the role of the Information literacy teacher?
What are your main objectives as a teacher of information literacy skills?
What methods do you use in the classroom to achieve the teaching objectives?
What do you want to be the outcome of your teaching?
How do you measure your success in teaching a class?
What are your long-term goals as an instructor?
How do you set your goals?
Why is teaching important to you?
What values do you want to impart to your students?

As you begin writing your teaching philosophy, you might simply list all the ideas that come to mind. As you solidify your thoughts, you can pare down what you have written for the final product. A teaching philosophy statement is generally one or two pages long. Remember that it is a personal statement - it is about your personal experiences and insights, not theories and beliefs in general. Use your intuition and reflect on personal experience. Consider reading some basic educational theory texts to help you organize and express your ideas.

It is helpful to share your draft with colleagues and ask for feedback. They can often help you clarify the ideas you may have difficulty expressing. When you have completed it, your philosophy statement will help you reflect on who you are as an instructor. Referring to it regularly will allow you to keep your energies focused on why you became an instructor, and what long-term goals you are working to achieve.

6. ACTIVE LEARNING

6.1 What is active learning?
Simply put, active learning is the process of "doing" or practicing the material during the session. The library instructor serves as a guide (rather than lecturer), leading students through the process of making their own discoveries about the material. The point is to change the focus from teaching to learning.

6.2 Why is active learning important?
- Cognitive research has shown that for a majority of students, lecture alone is not an effective educational strategy. If a student has the opportunity to read, hear, see, do and discuss the material, they will remember MUCH more
- Activity breaks up the monotony of a session, so students pay attention longer and enjoy the session more.
- Students will more likely be able to repeat the important steps in the research process on their own.
- Active learning encourages the integration of old and new material or knowledge.
- Higher-level thinking skills are activated, leading to enhanced critical thinking skills.
- Independent activities give students an opportunity to incorporate their own learning patterns into the activity.
7. LESSON PLANNING
(from Gaunt and Morgan et al 2009).

7.1 Writing learning outcomes
Your first step is to identify learning outcomes for the session. Learning outcomes are clear, precise statements of what the learner will know or be able to do as a result of attending your session. Ensure the learning outcomes are stated in student-centred terms. They should focus on what the student will be able to do rather than what you will have taught them. In theory, there are three parts to a learning outcome:

- **task**: an observable action stated in active terms such as to ‘list, identify, state, select, solve, calculate, write, demonstrate, match, translate or distinguish between’. Avoid passive terms such as ‘understand’ or ‘appreciate’.

- **standards**: indicate the proficiencies which the student must achieve; they should be measurable. They can be of three main types: accuracy, speed, quality, e.g. ‘without error’, ‘within ten minutes’, ‘in a coherent and well organised fashion’.

- **conditions**: describe how the task will be carried out, such as the range of problems to solve, the tools or equipment to be used, any special aids or manuals provided, environmental conditions, special physical demands, e.g. ‘without reference to a manual’, ‘by checking the provided chart’, ‘by using the evaluation checklist’.

In practice, while it is important to set the **task** and the **standards** in your learning outcomes, you may find that in the context of IL teaching it may not always be appropriate to set **conditions** for the activities.
In Table 1 we present structure of courses and the structure of applications.

<table>
<thead>
<tr>
<th>Courses structure</th>
<th>Teaching methods</th>
<th>Observations</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Application structure</th>
<th>Teaching-learning methods</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research in the online catalogue of university library. Familiarize with the existing types of documents in library collections, search strategies, search descriptors, documents identification in library collections. Search in online catalogues of other libraries in the country, National Library and some foreign libraries.</td>
<td>Interactive discussions, examinations on short subjects, debate.</td>
<td>Projector, board, internet access.</td>
</tr>
<tr>
<td>3. Creating a search strategy, using Boolean operators, synonyms, parentheses, truncation, nesting, creating a small bibliography on a given subject. Critical evaluation of the found information.</td>
<td>Interactive discussions, examinations on short subjects, debate.</td>
<td>Projector, board, internet access.</td>
</tr>
<tr>
<td>5. Use of citation and references writing standards, use of References in Microsoft Word.</td>
<td>Interactive discussions, examinations on short subjects, debate.</td>
<td>Projector, board, internet access.</td>
</tr>
</tbody>
</table>

*Table 1: Courses & Applications*
7.2 Creating lesson plans

Lesson plans set out the learning outcomes, content and structure of a session. They are intended for the benefit of the learner. They provide a useful tool to manage the expectations of learners and can help them prepare for the session. Together with instructor notes, they should help a colleague deliver a session in your place should the need arise.

![Lesson plans: items for inclusion – checklist](image)

Whichever format you use, your lesson plan will need to be clear and accessible. Where possible, distribute lesson plans prior to the session; this will be essential if any advance preparation is required of learners. There are a number of options:

- Hand them out at the start of an IL programme
- Hand out plans at the start of each session
- Ask academic staff to distribute them at an appropriate lecture before the session.

As an alternative to a lesson plan handout, you may wish to use the first few slides of your PowerPoint presentations for the purposes outlined above. It is good practice to distribute a handout of the presentation.

7.3 Lesson planning ideas

- Allow several hours for planning, especially if you are new to tutoring.
- Decide what skill you will teach, keeping in mind your student's competency levels, goals, and interests.
- To help define the learning objective, complete this statement: “By the end of this lesson, my student will be able to—”
- Choose a variety of activities that include reading, writing, listening and speaking. Some of the activities should be designed for review or reinforcement.
- Be aware of your student's particular learning style. You may also find the theory of Multiple Intelligences a useful tool in teaching to your student's strengths.
- Choose textual materials carefully, and involve your student in making these choices, especially after the first few lessons.
- Remember to emphasize a “real life” application of the skill you are teaching.
- Think about how your student will practice what you teach. Will you give homework? Does your student have time to do homework?
Remember to include a break! Allow time to stretch, get a cup of coffee or just relax for several minutes.

Throughout the lesson, use your eyes and ears to discover which skills give your student difficulty. Also ask your student at the end of the lesson how things went. You may want to use a Tutor Log to record the highlights of the lesson and your ideas for what to do next. Remember you will want to build on the skills you are teaching, and teach something new each time.

7.4 Preparing instructor notes
Preparing good instructor notes is an important element of your planning. They should provide a practical framework for the session and will assist you during delivery. They can also enable a colleague to deliver a session in your absence. Instructor notes should include two elements:

- **Information on the session content:** i.e. the core points including examples to be used in demonstrations

- **Information on the process by which that content is to be delivered:** for example, whether the content is to be delivered only by the instructor (instructor-led learning) or through the instructor asking the group questions and developing the content through the responses (student-focused learning). Will the questions be put to the whole group (global questioning) or to named individuals in turn (specific questioning)?

### Instructor notes: items for inclusion - checklist

- Course title (e.g. MBA, Year 1 Medicine), session title, and date and time of session (if applicable)
- Checklist of items to bring or things to set up at the start of the session, including:
  - Handouts to be distributed
  - Evaluation sheets
  - Equipment that needs to be set up
  - Any other special instructions
- Sub-headings together with timing guidelines
- Details of example searches or demonstrations
- Details of activities / how the students will learn
- Your initials, filename given to the document and date of last revision. These should be at the end of the document

*Figure 4: Instructor notes (Gaunt & Morgan 2009)*
Figure 5: Model of instruction notes

7.5 Handouts
Handouts are useful:

- as a memory aid - students will have information to refer to after the lesson
- to encourage good note-taking practice - students are more likely to be engaged in the presentation when not preoccupied with taking down the main points
- to allow students to recap on key points during a presentation.

They may take various forms:

- Directly related to session content e.g. a PowerPoint-generated handout of a slide presentation
- As an information sheet or permanent source of reference
7.6 Preparing handouts
Consider identification and layout. Think of disabled learners. Learners who are dyslexic, have concentration difficulties, or are visually impaired will benefit from the following measures:

- Prepare handouts using at least 12pt Arial font
- Use bold text for headings and avoid faint text at all times
- Avoid excessive use of capitalisation, underlining and italicisation
- Leave plenty of space between blocks of text
- Left justify text and leave the right margin jagged
- Use matt finished paper in cream or pastel colours
- Keep an up-to-date electronic copy for advance circulation, if requested

7.7 Creating handouts
Also consider using the Export to Microsoft Word feature to give more general control over the look and content of your handouts e.g. by going to Office – Publish – Create Handouts in Microsoft Word (fig.4)

You can choose from several Page Layout options:

- Notes next to slides
- Blank lines next to slides (Fig 5.)
- Notes below slides
- Blank lines below slides.

As the handouts are now in Word format, you have greater editorial control to make any other changes you wish.
Figure 7: Example: handouts blank lines next to slides

7.7.1 Testing
Whichever type of handout is used, it should be well structured, well-designed and checked rigorously for errors. It is good practice to ask a colleague to check it, to ensure that the information and any instructions given are clear and correct.

7.7.2 Creative use of handouts
Handouts can be used to provide opportunities for active learning during the lesson by, for instance, leaving blanks for students to fill in or by inserting a ‘question’ slide and asking them to make appropriate notes on the handout. This helps students engage with the material and encourages critical thinking.

If you are distributing copies of your slides at the start of the session, don’t necessarily include them all. You may hold student’s attention more effectively if you include a few surprise elements in your delivery!
8. LESSON FORMATS
(from Gaunt and Morgan et al 2009).

8.1 Planning a lecture
When circumstances may require delivering a session to a large number of students in a lecture hall, there are choices of teaching method. The lecture format is popular and widely used but it can be a challenge to retain interest and enable learning. It is important to sustain student interest. Power Point has to be used effectively. Move from talking to showing a video, or from demonstrating a database to playing an audio clip.

One useful technique is to get students to discuss something in pairs followed by feedback to the group or asking them individually to write down a question related to the content of the lecture. Try to incorporate opportunities for questions throughout the lecture. The closing activity could involve asking each student to write down the three most important points from the lecture and then share them with their neighbour. This helps students reflect on what they have learned.

8.2 Planning a workshop
Small-group teaching offers greater opportunity for incorporating ‘hands-on’ activities, peer learning and discussions than a lecture. Remember that evidence suggests that a student’s attention span drops markedly after twenty minutes so ensure you plan a session which incorporates a good range of learning experiences. Two useful methods of engaging learners within workshops are mind maps and small group discussions - a useful way of getting learners to communicate with each other and to explore ideas.

8.3 Planning one-to-one teaching
These could be requested by:
- Undergraduates who missed a group session
- New researchers / lecturers
- Lecturers wanting a refresher course or to learn a new resource
- Clinicians needing information for patient care.

It is essential that You identify the needs of the learner and tailor the session accordingly.

9. WHERE DO YOU START?
Start with what you know! You don’t have to design a new instruction session from the ground up. Just take a successful class plan that you have already been using, and build in active learning exercises. Here's an example of how you could proceed:

- Review your material and determine which 2 or 3 concepts are the most important for your students to learn.
- Develop simple activities to reinforce each of these concepts.
- Schedule the activities to take place directly after you’ve conveyed the related information.
9.1 Tips for successful assignments

- Assume students have minimal library knowledge (unless you know differently)
- Review the course syllabus and assignments to ensure that your session is directly relevant to student needs.
- Make sure the activity has a goal and that the students understand this goal.
- Provide any necessary structure or directions in writing.
- Have students work in groups or pairs.
- If possible, have sequential activities build on the last skill learned.
- Review the activity with your students and discuss how these skills are relevant to the larger research process and/or how these skills are transferable.

9.2 Other factors to consider

- **Limited time:** most librarians have about an hour to try to squeeze in a lot of information. Consequently, many of our instruction sessions become a boring and torrential description of sources. Realistically, students will not remember most of what they've been shown. One solution would be to give your students a handout that includes all of the sources you would show them. Then use your session to actively focus on a few skills or sources that are the most important. They will often be able to apply these ideas to the other sources on your handout.

- **Increased preparation time:** it takes time to design active learning exercises. No one will disagree. However, once you've designed some general activities, you can use them again for other sessions. In the end, creating a file of potential activities can actually save you class planning time.

- **Risk and unpredictability:** the risk of not knowing what may happen is what keeps many of us from trying active learning in our sessions. Any activity has the potential to flop. Students may not participate, they may misunderstand the exercise, or it may simply be too easy or difficult. How do you recover? The key is in planning and being ready to think on your feet. Before the session, develop some potential solutions for these pitfalls, and then allow yourself and your students to modify the activity if need be. It is often in the middle of an exercise that you really become aware of problems, so don't be afraid to change course. Making those spontaneous changes may be the scariest part of active learning, but if you have library reference desk experience, you probably already have this skill.

- **Less-than-ideal teaching spaces:** we are often faced with the dilemma of trying to build active learning exercises into a classroom that doesn't exactly fit our needs, e.g. trying to teach students about electronic resources in a classroom without computers. Although you cannot have students complete actual searches in this situation, you can develop other activities that will help make them better searchers (brainstorming keywords, analyzing
Developing information literacy for lifelong learning and knowledge economy in Western Balkan countries.

It is important to remember that a good discussion can be an active learning experience.

- **Technology**: when planning your activities, make sure to consider the technology you will be using and any potential problems it can cause. Many databases have a limited number of users. Sometimes there are more students than there are computers. What if the projector fails? The scenarios are endless and the only real solution is to have a back-up plan. Make sure you have a potential replacement activity that does not rely on technology.

## 10. SAMPLE ACTIVITIES

Try some of these activities in your class:

- Lead a discussion about important ideas or concepts, such as using popular vs. scholarly sources.
- Have small groups review a relevant reference source and tell the class why it is valuable.
- Brainstorming keywords (including broader and narrower terms!).
- Conducting and recording database searches with their own or an assigned topic.
- Web searching with the advanced screen and evaluating the returned sites.
- Searching for best subject headings in library catalogue

**Ready to Try It?**

The next time you plan a session, pick a skill or concept that you would like your students to learn and build an activity around it. Pay attention to how well it works, ask for feedback, modify it as needed and try it again in another session. Keep doing this until you feel you have a successful activity.

## 11. BEFORE THE CLASS

Teaching often happens in the middle of the day and can be wedged between meetings, reference/circulation desk shifts, and other commitments. Consider these steps to prepare to transition into the classroom before the class.

- **Allow yourself at least 20 minutes before the session to focus your energy on teaching.** This might mean leaving a meeting early or asking someone to take over for you early on the reference desk. You owe it to yourself and your students to have time to transition from other activities.

- **Establish a pre-teaching ritual that helps you transition.** This might be a final trip to the restroom, a psych-up speech that gives you confidence or a last review of your class notes.
Consider incorporating one or more of the following exercises for public speaking into your pre-teaching ritual. These strategies are designed to warm up your voice, relax your body and mind, and prepare you to step into a teaching role.

**11.1 Body**
- Shake out hands, arms, shoulders
- Work/relax the jaw, shake out legs/feet
- Fall over at the waist (rag doll) and slowly roll up to standing, one vertebrae at a time
- Centre yourself by imagining you have the weight of a bowling ball at your midsection

**11.2 Breathing**
- Diaphragmatic/abdominal (i.e. stomach) breathing is best for powerful speech.
- Place hands on stomach or at bottom of rib cage. Fake a yawn. Feel stomach & ribs expand on inhale and that is what breathing from the diaphragm feels like.
- Imagine a colour when you breathe in and another for your exhale, representing your stress. Let your tension run out with your breath.
- Take a deep breath (all the way to your feet) and exhale slowly, controlling the exhale with your stomach muscles
- Take short, strong, piston-like breaths in and out your nose as a way to energize your breath.

**11.3 Voice**
- Stretch & relax facial muscles
- Say the letters ‘p’ and ‘b’ followed up with sounds that are more throat-y, such as ‘n’ and ‘ng’ to get familiar with how your own voice sounds
- Work jaw (say moo-WAH)
- Work tongue (la-la-la)
- Work lips (buzz! buzz!)
- Try a tongue-twister, increasing the speed each time. You will need to concentrate!
  - Example: Grip Top Sock --
    - *Give me the gift of the grip top sock.*
    - *A drip drape, ship shape, tip top sock.*
    - *Not your spin slick, slap stick, slip slop stock;*
    - *But, a plastic elastic, grip top sock.*

**12. CREATING A LEARNING ENVIRONMENT**
There are a number of things that you can do to create the most effective learning environment possible. Use the following checklist to help you prepare.

- **Arrive Early**: know where to get a key or whom to contact to open the room. If there is another session scheduled in the room prior to yours, signal to that instructor that you are waiting so they will conclude on time.
• **Check Equipment:** test any equipment you or the students will be using. If applicable, make sure all computers are logged on to the network. Make sure the projected image and everything you write on the board are visible from the back of the room.

• **Arrange Seating:** arrange seating to fit your session needs and be sure you have additional seats in case you have a bigger turnout than you expected. Make sure to have a seat to the side for the faculty member.

• **Set Temperature:** temperatures between 68 and 72 degrees Fahrenheit are ideal. It is not distractingly cold or so warm that students will get drowsy.

• **Set Lighting:** plan for when you might need different lighting during the session. If you can control the lights, make sure they are on when students are entering the classroom.

13. **STARTING THE CLASS**

REMEMBER: how you begin can set the tone for the entire session. To set a positive tone, try the following:

• **Greet students who arrive early:** as students enter the classroom, talk to them to break the ice. They will be more comfortable and willing to participate if they’ve already spoken to you before the session. Talk to them about topics in which they would be interested and impart to them that you understand and care about their education and school life. Try one of the following icebreakers:
  
  o Are you going to the game this weekend? How is your class going so far? Do you like it? How is your semester going? You must be getting really busy now that it is mid-term time.
  
  o If you know what the assignment is, ask them how it is going, if they are having any difficulties, how many sources they need, etc.

• **Greet the faculty member:** when the faculty member arrives, greet him or her and explain your plans for the session. Make sure to give him or her a copy of the handouts. You may also want to ask if the faculty member needs a few minutes to talk to the class at the beginning or end of the session. This conversation imparts to the faculty member that you have a structure for the session and may prevent him or her from taking up valuable time or interjecting too frequently. Introduce any class observers or co-teachers to the faculty member and explain their role in today’s class. Set expectations for the faculty member’s participation in the session as well and explain how they might contribute.

• **Get students’ attention:** once you are ready to begin, you need to get students’ attention. If they are already sitting quietly, simply introduce yourself to start the session. If they are talking, state that you’re going to the start the session and introduce yourself more loudly. Remember to maintain a friendly tone when you raise the level of your voice. You do not
want to be perceived as talking loudly. You may also try turning the lights or projector off and on to get their attention.

- **Introduce the session:** after you introduce yourself, tell the students who you are, the learning outcomes for the day’s session, and how the session will support their coursework. In other words, let them know your goals for the session and why those goals are relevant to their academic success. There should be no surprises during the session. Writing your learning outcomes on the board or incorporating them into a project or course guide will help to reinforce the focus of the session. Be sure to tell students about activities they will be doing as well as what you will be discussing. Make sure they know the structure for their involvement. For example, you may want to encourage them to ask questions at any time.

**Sample Introduction**

You are teaching upper-level undergraduates in the Science Fiction Department. They are writing an annotated bibliography about utopias.

"Hi. My name is John Doe and I am a librarian in the PCL. I am the subject specialist for Science Fiction, which means I buy all of the books and journals in that area and am available to help you with your research. Today we will be discussing how you can do research for your annotated bibliography about utopias. We will start out by discussing how you can find articles from magazines and journals, then discuss how you can find books and wrap up with a discussion of evaluating web sources. I will show you a number of online resources and you will also be asked to do two activities in which you locate a journal article and a book. By the end of this session, each of you should have one article and one book, which you can use for your annotated bibliography. If you have any questions at any time, please feel free to ask. Ready to get started?"

### 14. SPEAKING TO AN AUDIENCE

Effectively engaging an audience is dependent on the speaker's ability to sound interesting and convey a positive attitude. Developing good speaking skills involves an increased awareness of your voice, language, body language and tone while teaching. The following tips and activities will help you develop that awareness and improve your teaching.

#### 14.1 Voice

Your primary tool for instruction is your voice. When speaking to a class, think about projection, pace and modulation

- **Projection:** make sure you are speaking loudly enough so that everyone can hear you. At the beginning of the session, ask the audience if they can hear you and adjust your volume
accordingly. Be sure you aren’t speaking too loudly, though, as it can overwhelm your audience.

- **Pace**: make sure you are not going so fast that people cannot keep up, or so slow that people get bored and stop paying attention. You can also use strategic pauses, such as pausing just before an important point in order to emphasize it. One common pitfall is long silences while you are opening a browser or database or waiting for a search to run. Use that time to explain the concept behind what you are doing. In addition, keep in mind that the pace of the session depends upon your audience. For example, First year students may be used to fast-paced, quickly changing presentations. Students with disabilities may require that you speak more slowly and take extra time to cover concepts.

- **Modulation**: Whether your natural speaking voice is high or low, loud or soft, varying your inflection and volume will keep your audience's attention.

**14.2 Avoid up-talk and vocal fry**

When you’re nervous or not confident about how to present a concept, your vocal inflection will often turn everything into a question, with intended declarative statements rising at the end (“My name is Jane Doe? And I’m a librarian here at PCL?”). Vocal fry occurs when your voice croaks at the end of a statement, often because you’ve run out of air. Practicing your presentation and recording yourself delivering new content can help you identify where you’re up-talking and isolate content you may need to re-review more often.

- **Uptalk**: for uptalk, as you near the close of a statement or the paused transition from one statement to another, focus on directing the tone of your voice downward, but not to the point where it leads to vocal fry. If you notice that your voice is turning upward, take a breath and end the sentence with a downward tone. While at first you may think this sounds too dominant or abrasive, it does not. Instead, your message will seem confident and credible. State the last word as a fact, not as a question.

- **Vocal Fry**: to avoid vocal fry, take a small breath from your lower rib cage before speaking, and pause when needed to allow breath to replenish naturally. If you speak with too many words on one breath, you will eventually run out of air, and your voice will become gravelly if you try to continue speaking. While breathing, feel the air fill up your lower chest. If you speak from this area of your chest, your words will come out clearly and powerfully. Make sure you maintain the volume of your speech through the last word of an utterance.

**14.3 Language**

Avoid library-speak! Most students are unfamiliar with library terminology and research processes. Remember that you are more interested in students learning the concepts and skills of library research than library terminology. To that end, try introducing those terms that students will need to locate information in an interesting yet succinct way. Use analogies to describe difficult concepts. For example, when discussing Library Catalog, don’t refer to it as an OPAC. It won’t mean anything to the students. Instead, you may want to explain that the library catalog is like a map of all items in the...
library. When you search the catalog, it is like asking for directions to specific resources in the library.

14.4 Body language
You are communicating with your students through your body language as well as your voice. You can use body language to great effect in the classroom. The following techniques illustrate how.

- **Develop eye contact with your audience:** If you look at people when you are teaching, you send a message that the content is important and make a connection with the audience that keeps their attention. Make sure that you look around the room and do not just focus on one person or one section of the room. Some instructors break the room up into sections and make a point of regularly looking from section to section in order to connect with the entire class.

- **Use gestures to emphasize points and keep your audience's attention:** If you want to emphasize something you are demonstrating, remember to gesture toward the screen students are seeing instead of moving the mouse on the instructor station screen.

- **Stand up:** It keeps your audience's attention. If you must sit, alternate between sitting and standing to make transitions between points or sections of the session.

- **Walk around to keep your audience's attention:** Try taking a few steps forward when you want to emphasize a part of your content. Move around the room, but choose a landing point and root yourself there until a natural transition point. Avoid pacing.

- **Relax!**: Be conscious of how you are carrying yourself. Try not to let your shoulders tense up or allow your body to become rigid. This is physically exhausting and will affect how students perceive you.

- **Smile and laugh!**: It engages your audience and makes you more approachable if students have questions.

14.5 Tone and humour
Your tone also affects your teaching success. If you sound bored, for example, students will be bored. When teaching, try to convey an infectious enthusiasm for the topic. Be positive and upbeat and don’t focus on negatives or difficulties. You may also want to try incorporating humor into your instruction. A funny library instruction session will go a long way toward improving students' attitudes about the library and librarians. You may want to try weaving a humorous story throughout the presentation, maybe using it as a basis for activities and sample searches.
15. ASKING AND ANSWERING QUESTIONS

Asking and answering questions, a form of active learning and a form of assessment, is an excellent teaching tool. Posing questions to students breaks the monotony of lecturing and increases active participation, understanding, and retention. Questions asked by students will clarify content and may provide feedback on your presentation.

15.1 Asking questions

When you ask a question, allow time for students to think of an answer. Even though it may seem like an eternity, try counting to ten to yourself in order to give the students adequate time to respond. Your silence will usually encourage an answer. If no one has answered the question after ten seconds and they are not making eye contact, try rephrasing the question or providing a hint to prompt a response.

15.1.1 Types of questions

- **Memory questions** are designed to assess knowledge of facts and can be yes-no, definitions, lists of names/places/dates.
  - Example: Which University Libraries are open to undergraduates for research, study, and learning support?

- **Attention-focusing questions** help students fix their attention on significant details
  - Examples: Have you ever used X online database? What have you noticed about its look/feel/searchability?

- **Convergent questions** are all about what, who, when or where. They are good for practice, drill, review of information and usually have one best answer

**Exercise:**

Record your voice. Select a session you feel comfortable teaching, ask for permission from the attendees and record the session. After the session, listen to the recording and answer the following questions:

- Did you modulate your voice?
- Did you speak softly or loudly when emphasizing a point? Was it effective to do so?
- How often did you use acronyms and jargon when speaking? Did you explain what they mean?
- What was the pace of your presentation? Did you speak too quickly? Were there long silences?
- After listening to the recording, what do you think are the three best qualities of your speaking voice?
- What are two things you would want to improve for future classes?
**Example:** How can you get help with your research project at the University Library?

- **Divergent questions** start with how or why and are designed to encourage students to plan, process, and synthesize their thoughts.
  - **Example:** How would you go about finding information on X research topic?

- **Evaluative questions** are broad, open-ended, and encourage the development of opinions, judgments, or decisions.
  - **Examples:** Do you agree...? What do you think about...? What is the most important...? Place the following in order of priority...? How would you decide about...? What criteria would you use to evaluate...?

- **Problem-posing questions** help students plan and implement solutions to problems.
  - **Examples:** Can you find a way to...? Can you figure out how to...?

- **Reasoning questions** help students think about experiences and construct ideas that make sense to them.
  - **Examples:** Why do you think...? What is your reason for...?

### 15.2 Tips for asking questions to engage learners

Asking the right question is often difficult and asking questions at all is a risk. When you first start teaching, it can be difficult to introduce questions into your class plan. When you ask a question, you’re taking a risk and relinquishing control of the classroom to the learners. This creates a more student-centered classroom, but also requires preparation and practice.

The tips below are designed to help you consider strategies for asking and answering questions.

- **Be patient:** When you ask a question, allow time for students to think of an answer. Even though it may seem like an eternity, try counting to ten to yourself in order to give the students adequate time to respond. Your silence will usually encourage an answer. If no one has answered the question after ten seconds and they are not making eye contact, try rephrasing the question or providing a hint to prompt a response.

- **Ask closed questions to begin and promote engagement:** Students need time to acclimate to the classroom and the session. Closed questions require only "yes" or "no" responses, and asking them at the beginning of a session can help get the ball rolling and can give you an idea of how much students already know about the library. Examples include "Have you ever visited the library's Web page?" or "Can you find journal articles in the library's catalog?"

At first students may not even feel comfortable enough to answer a closed question. In that case, try asking the question differently. For example, ask them to raise their hands if they have visited the library’s Web page. Introduce questions that rely on their own experience rather than knowledge they’ve retained about the research process, such as “Where do you
usually start your search when you need to find information on a topic?"

- **Introduce more open questions as students become more comfortable with the session and with you as a teacher:** Open questions require more complicated responses than simply "yes" or "no." Examples of open questions include "How do you find articles in the library?" or "What are some keywords we could use to search this topic?"

- **Encourage students to ask questions and include prompts and time for questions in your class plan:** In addition to asking specific questions, you want to encourage students to ask you questions. You can do so by letting your class know during the introduction that you want them to interject and ask a question at any time. You may also want to check in with students along the way to see if they have questions. It is particularly useful to do so just before moving on to a new concept because it provides an opportunity to review the main points of the session. Providing time for questions after an active learning exercise can also help transition the class out of the activity.

### 15.3 Tips for asking questions to assess learners

Use questions to determine what students have learned. You can use questions to determine if your students are grasping the concepts you are trying to teach. Depending upon the rapport you have built with your class, try one of the following:

- If your class seems comfortable and has been participating, you may want to simply ask if there are any questions before you move on.

- If they are quiet or seem shy and reserved, you may want to ask people to raise their hands or nod if they understand the concept. If a number of students do not raise their hands, you know you need to go over the concept again. You can also ask students to answer questions in smaller groups or pairs first to give them more confidence.

- Ask the class to answer a question which sums up the main points of that section of the session before you move on. For example, if you spent time discussing how to find articles if they are not full-text in a database, you may want to ask "If I want to find an article in the library from a citation, what do I search in Library Catalog? The title of the article or the title of the journal?" They will (hopefully!) all answer "the title of the journal." This response indicates that they understand the concept and reinforces it.

- Consider using anonymous feedback methods and technology to assess understanding. Students are often afraid to ask questions and assume they’re the only ones who are confused. Embed a SurveyMonkey quiz in an online course research guide or use a tool like Poll Everywhere to gain real-time anonymous feedback that allows you to quickly identify concepts that need additional clarification or follow-up after the course. (See Section 22: Assessment for more information about assessing student learning.)
15.4 Using repetition with questions

You can also repeat the same questions throughout your presentation to ensure that students learn important concepts from the session. For example, you can ask them "Can you find articles in the Library Catalog?" By the third or fourth time, all of them will have it down.

- **Avoiding asking “Does everyone understand?” or “Is that clear?”** Students usually do not answer that question as a group. Some may nod, but it is not an effective way to gauge understanding for the entire group. Another pitfall is to ask students to raise their hands if they do not understand. Most students will not want to single themselves out in a group as the one "not getting it."

- **If no one asks a question, don’t follow up with a statement like “No questions? It’s pretty easy/simple.”** The absence of questions does not mean that the concepts are universally understood. Acknowledge that research is a process and takes time to master. Encourage students to contact you later when they have question.

15.5 Use inaccurate information as an opportunity for clarification.

When you ask an open question, you can’t be certain what students will say! Sometimes students will provide an answer that’s inaccurate. Avoid labeling the answer “wrong” and instead consider one of these strategies:

- **Find out more about their thought process and use further discussion of the answer as a teaching moment:** “That’s an interesting answer. Why do you say that?”

- **If some part of the answer is correct, acknowledge that:** “You’re right about X, great job, but let’s talk more about Y.”

- **If a student’s answer represents a common misconception, use the opportunity to clarify:** “Thanks for that answer. A lot of people believe that, but let’s see why that might not be the case.”

- **Thank the student for trying, invite more answers, and then piece together the correct responses:** “Thanks for sharing that. Does anyone else have thoughts on this question?”

15.6 Answering questions

- **Paraphrase/repeat:** If someone in a class asks a question, paraphrase or repeat back the question so that the whole class can hear it before you answer it.

- **Commend/appreciate:** It takes courage to ask a question. When a student asks a question, compliment it with "That's an excellent question" or "I'm glad you asked that." Make sure to answer these questions sincerely since students usually know when an instructor's response isn’t genuine.

- **Be honest:** Stumped by a question? Let the person know that you will find out and respond later, either to the class or by email through the faculty member.
16. MAKING TRANSITIONS

It can be difficult to transition from one section of a session to another. Perhaps moving between concepts seems abrupt, or perhaps your students are caught up in an active learning exercise in a database and you need them to stop their searching and move on to the next concept. There are a number of methods you can use to make transitions.

- **Q&A:** you can use questions and answers to sum up one section and move on to another concept in a number of ways. The section, "Asking and Answering Questions," describes how to do so effectively.

- **A change in the environment:** turning the lights or projector on and off are good signals of transition points. For example, when students are doing an active learning exercise, have the lights on. When you are ready for them to focus on you and what you are projecting on the screen, turn the lights off. If you cannot control the lights, try turning the projected image on and off.

- **Active learning exercises:** you can strategically schedule active learning exercises during the session to signal transitions. For example, you may start out discussing databases and have a database searching exercise. After students report back on the exercise, it is a natural time to move on to the next concept or skill.

- **Transition sentences:** before your session, plan transition sentences and write them out in your outline. Transition sentences are sentences such as "Next we are going to talk about. . ." or "Now that we have learned about [what you just covered], we are ready to move on to. . ." Consider scripting these transitions when you teach a session for the first time.

17. MANAGING THE TIME

As everyone who has taught knows, no matter how well prepared you are, sessions never unfold exactly as you expected and planned. Being flexible and open to this kind of change in plans or the schedule is one characteristic of a good teacher. However, you need to balance this flexibility with time management.
The following are some techniques for time management:

- When planning the session anticipate how long each section and activity will take. Make sure you leave a few minutes leeway in each direction.
- Have a clock or watch handy and keep an eye on it.
- Be prepared to change your plans if you are running out of time. This requires that you think on your feet. You may need to cut out one section you originally intended to teach. Remember that it is better to cover less and be sure that students truly learn the material than to cover more in a quick or superficial manner.
- Have a plan for following up with more information or providing clarification if you run out of time. An online course research guide allows you the opportunity to present information that wasn’t covered during the session. An email to a professor with more information can be forwarded to students.

**Exercise:**
- For your next session, estimate how long each section will take.
- Afterward, see how realistic your estimations were and adjust accordingly.
- What happened to make those sections go more slowly or quickly?

### 18. RESOLVING DIFFICULT SITUATIONS

There are a number of situations and issues all instructors must deal with at some time or another. The following are some tips and techniques for dealing with those challenges:

#### 18.1 Nervousness

Public speaking continually ranks in the top five things people fear most. Even experienced speakers get nervous before presenting. Nervousness can be viewed as a positive sign since it usually means that you care about teaching and how you present yourself to an audience. The following are some techniques to help you handle nervousness:

- **Be prepared:** Understanding the content you plan to teach is the best way to be confident in front of a class. Spend time with the topic and learn the subtleties of that type of research.

- **Practice in front of a mirror or with colleagues:** If you have colleagues who are willing to listen, ask for feedback.

- **Record yourself:** In the absence of an audience, you can rely on cell phones, iPads, and webcams to record yourself and review your strengths and weaknesses while presenting.
• **Be comfortable**: Be sure you are wearing something in which you feel comfortable and confident. Find a home base (a position that you stand in when you are not gesturing/walking) that is most comfortable. Placing your forearms on the hipbones and clasping your hands loosely usually works well and helps to alleviate nervous shaking hands. This stance will make you appear confident and will help to put your audience at ease. Keep your papers notes or iPads on the surface in front of you since hold objects only draws attention to shaking hands. Clasping your hands loosely will also make you mindful of their placement and prevent nervous movements.

• **Bring water**: If you tend to have a dry mouth when nervous, have water available to sip or suck on sour candy. It makes your mouth water. Sipping water is also a great way to put a natural pause in a presentation.

• **Relax and breathe**: If your voice quavers, take deep breaths and speak in a lower tone.

• **Take your time**: If you suddenly forget what you are about to say, glance at your notes or take a moment to collect your thoughts by asking a question.

• **Keep teaching**: You often notice your "mistakes" more than your students do. Don't let something that went wrong ruin the rest of the session. Remind yourself that it isn't a big deal - it's just one instruction session and practice is the best way to improve your skills and increase your confidence.

### 18.2 Students will not participate or answer your questions

One of the difficult things about asking questions is being met by complete silence. If students will not participate or answer your questions, try one of the following:

• **Rephrase the question**

• **Wait ten seconds**: The silence will usually encourage someone to respond.

• **If you have already established rapport with students by talking to them before the session began, ask them if they would answer**: Be sure that you don't unintentionally humiliate anyone by calling on them if they don't know the answer.

• **Acknowledge that they are not answering the question in an understanding way**: For example, you may say "I see nobody wants to answer that question. I guess I wouldn't either at 8 am on a Friday." If you impart to them that you understand where they are coming from, they are more willing to participate and not leave you hanging.

• **Try having students work in groups early in the session**: This usually loosens them up and makes it more likely that they will respond to questions and participate.
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- **Encourage them directly**: Ask "Who wants to answer this question?" Make sure not to phrase it negatively such as "Why won't you answer the question?" or "Doesn't anyone know the answer to this question?"

- **Answer the question yourself and ask them to repeat the key concept back to you**: For example, if you asked if you can find articles in Library Catalog and have to answer the question yourself, immediately ask them "So, can you find articles in Library Catalog?" and they will all say "No."

- **Remember that sometimes you will not be able to make them participate no matter what**: It happens to everyone at some point or another. Don't let it undermine your confidence. If you can't get them to participate, it is okay to change to more of a lecturing presentation style.

18.2.1 **Students are texting/on Facebook/focused on something else**

There are two philosophies of what to do if students are obviously engaged in another activity on the computer or their phones. Some instructors believe that once students get to college, they should be treated as adults who may make their own decisions about listening and participating. If they choose not to participate during a library instruction session and aren't causing a distraction for other learners, they are the only ones who will be hurt by it in the end. Other instructors believe that more preventative teaching methods should be used in the classroom, like asking students to turn off monitors when the instructor is talking.

Structuring your class plan with activities requires learners to demonstrate engagement and understanding. If students aren’t engaged and are involved in other activities on the computer, circulate around the room and check in with students who are not participating and ask if they need help. Moving around the classroom and making students aware that you can see their activity often helps to focus computer use as well.

18.2.2 **Students are spacing out/falling asleep**

The best way to handle lagging attention is to prevent it in the first place. Brain research has shown that everyone experiences "mental drop out" but there are some guidelines to follow to minimize this occurrence.

- Don’t talk over 10 minutes without breaks or a change in activity.
- Build in external and internal focus (demonstrations on the screen as external focus and 5 minutes of reflective work as internal focus)
- Give downtime between pieces of learning
- Use variety and contrast (lecture, group work, self-directed work, etc.)

18.2.3 **One student is "taking over"**

There are many ways a student may "take over" a session.

- **Issue**: Student is asking a lot of questions or bringing up personal experiences that aren't relevant or on point.
Solution: "That is a really good question/point but we don't really have time to address/discuss it right now. Let's get together after the session and talk about it."

- **Issue**: A student answers all of the questions and does not give others a chance to participate.
  
  **Solution**: "You've done a great job of answering the questions so far and I appreciate your enthusiasm. Let's see if someone else wants to have a go at answering."

- **Issue**: A student intentionally challenges the instructor's authority or control over the class by interrupting and/or refusing to stop talking when the instructor is ready to speak.
  
  **Solution**: "I can see that you have a lot to add but unfortunately we don't have time to address those issues during this session. I have a number of points to address and time is limited. Let's discuss those issues after the session."

18.2.4 **Students are talking amongst themselves during class**

If students are talking while you are at the front of the room trying to present, address those students directly and respectfully. If you humiliate them, you will probably end up losing the entire class. Try the following: "We have a lot to cover in a short amount of time so do you mind waiting until after the session to have that discussion? Thanks. I appreciate it." If you have a second instructor in the room, they should approach the students and quietly say the same thing to them so as not to single them out in front of the class.

18.2.5 **Technology failure**

Prevention and preparation are the best ways to handle technology failure. Check your equipment beforehand and make sure it is working. Find out how many simultaneous users a database allows before you use it in a session. That way you won't be surprised. If you have technology failure anyway, consider it an opportunity to exercise your flexibility. If you can't get into one database, have another in mind that would work and use that one instead. Whatever you do, don't panic and keep trying to access that same database. Think of it as a teaching opportunity. Many students will have the same problem one day and your response will teach them how to choose another database or tool rather than just give up on their research. You find yourself in a situation where online access goes down and you'll need to discuss the concepts without demonstration. This isn't the end of the world and there's nothing wrong with shortening the class session in consultation with the faculty member. You can provide follow-up materials and instruction via email or an online course research guide.

18.2.6 **Late comers and early leavers/class disturbances**

If someone arrives late to a session, a normal reaction is to try to sum up for the latecomer what has been discussed and get him or her up to speed with the rest of the class. Resist this reaction since it wastes the time of the majority of the students who did arrive on time. Instead, continue on and when you get to your first active learning exercise, take the opportunity to speak individually with the student and explain what he or she missed. If the student is so late that this is impossible, tell him or her to contact you after the class to set up an individual session. If a student leaves early, just ignore it and don't let it derail your session. You can also ask students at the beginning of the session to help you out by showing any latecomers that sit next to them how to sign into the wireless network.
19. AFTER THE CLASS

Our teaching only improves with practice and a reflective practice helps to focus and guide improvement. Char Booth states, “Reflective practice is the process of understanding and shaping your skills and abilities throughout the teaching process, not just assessing your performance at the end of an interaction. Metacognition is the internal element of reflection, while collaboration is its external element.”

Exercise:

After you’ve finished teaching a session, take a moment to reflect on three questions.

1. What went well?
2. What could have gone better?
3. What would you do differently next time?

You might create a document where you track your responses to these questions each semester. When you teach the same session the next semester, return to your reflection and use it to revise your session plan and reconsider your teaching methods. You can also send yourself an email that you file away with your communication related to the session.

20. EVALUATING YOUR TEACHING: HOW DID I DO?

20.1 Observation

Observation is the easiest way to begin incorporating evaluation into your instruction. It may be carried out either formally or informally, and by oneself, by ones’ peers, by students and by faculty. In this section, we will look at different ways which you can use observation for evaluation.

20.1.1 Self-observation

How can you evaluate your own instruction without outside feedback? If you have followed the steps outlined for planning a class, you already have some tools to use. At the end of your instruction session, take some time to think about the session. Did you meet your goals and objectives? How was your presentation style? Did you incorporate active learning? If so, was it successful? Choose both positive aspects and aspects which you would like to improve. Set goals for yourself for your next session.

Example:

Try keeping a journal or log of each session that you plan, and include your self-assessment at the end of the session. By keeping a log, you will be able to track your progress as you achieve your goals over time.

20.1.2 Audio or videotaping

If you’re feeling brave, you may want to audiotape or videotape your session. If you do so, be sure to get permission in advance from the faculty member and students. When you watch the video or listen to the tape, note what worked and what you would like to improve. If you tape more than one session, you will have an audio or video log of your progress.
20.1.3 Feedback from a colleague

Once you have tried turning a discerning eye upon your own instruction, you may be feeling brave enough to ask your co-instructor to evaluate you. If you don't have a co-instructor, you can ask a colleague to sit in on the instruction session. At the end of the session, talk to the person you asked to evaluate your performance. If you are the evaluator, be sure to note what was done well, as well as offer constructive criticism. As the one being evaluated, be prepared to hear and accept constructive criticism, and discuss with your colleague(s) ways in which you can improve.

20.1.4 Feedback from faculty

Have you ever taught a session and afterward felt as though it didn't go well at all? Yet the faculty member thanked you and told you how useful the session was. Are they just being polite because you taught a section of their course for them? Maybe. But faculty can be an excellent source of feedback if you can just get them to give you some. Before the session, talk to the faculty member and tell them that you are going to be asking them for feedback. You can leave the question open-ended or ask for something specific, such as feedback on presentation style, whether the students were engaged, content, etc. You can either talk with them directly or conduct the conversation via e-mail.

Example:

After the session, send the faculty member email asking them for feedback.

20.1.5 Feedback from students

Students are another resource for evaluation. There are many questions and forms you can use which will provide feedback on different areas. For example, you may want to assess your teaching style, the value of the content or the appropriateness of the length of the session. Think about what you want to know before you choose an evaluation tool. You may want to ask the faculty member to have the students send an evaluation of the instructor to him or her and then s/he can strip out their personal information and pass it along. Another option is to give students an evaluation form at the end of the class and ask them to drop it off by the door on their way out.

Example:

Leave time at the end of your next instruction session to ask for feedback on your session and your presentation.

21. EVALUATING STUDENT LEARNING: DID THEY GET IT?

We plan and teach library instruction sessions with the hope that students will learn whatever it is we set out to teach them. In this section, we will explore different student "assignments" which assess student learning outcomes.

21.1 Brief assignments

There are a number of brief assignments you can implement during a one-shot instruction session.

- **Three things you learned**: At the end of the session, ask students to write down on an index card three things that they learned. After the session, you can review these cards to find out
if you met your goals.

- **Three things you found confusing/did not like:** At the end of the session, ask students to write down on a piece of paper what they found most confusing. You can use this feedback to devise new ways to discuss those confusing points.

- **One-minute paper:** At the end of the session, give students one minute to write what they learned. You can use this feedback to measure how well you met your goals.

- **Index card assignment:** When students arrive for the session, give them index cards and ask them to write down three questions they have about the library or about research. Collect those index cards before you start the session. At the end of the session, read the questions and have the students answer them. You will find out if they learned what you set out to teach them or if they had any questions you did not address during the session. This is also a way of combining evaluation and active learning.

- **Pre- and post-tests (quizzes):** Create a quiz that addresses the areas you will cover during the session. Copy it on both sides of a sheet of paper. At the beginning of the session, have students take the quiz. When they are through, tell them to set it aside. At the end of the session, ask students to turn the sheets over and take the same quiz again. They will immediately be able to see what they learned, and so will you when they submit the quiz to you. Save time to go over the correct answers during class. If you do not have time, make sure that students are given a handout or a follow-up email with the correct answers.

**Exercise:**

Try using one of these assessment tools in your next class!

### 21.2 In-depth assignments

More in-depth assessment requires that you have a good working relationship with a course instructor or faculty member. Some examples of in-depth, collaborative assignments are:

- **Check sources:** Offer to check the works cited lists with or for faculty. By checking the works cited list, you will find out if students implemented any of the skills you taught in the session.

- **Faculty feedback:** Ask faculty to give you feedback on student learning. A few weeks after the session, after they have completed an assignment, email or call faculty and ask if they noticed a difference in assignment quality.

- **Student research log:** Ask faculty to require that their students keep a research log. Offer to review the log for faculty or to do the review together. Please see Appendix 2: Sample Research Log.
22. **ASSESSMENT**

22.1 Purpose and forms of assessment

Assessment is the careful judgment from close observation of learners throughout their learning process. It requires the phases of collecting, analyzing, and reporting data through the whole process of information literacy learning (AASL, 1998 cited in Gaunt & Morgan 2009). Evaluation differs from assessment in the sense that it usually places value on when the student finishes a task. Assessment is a more comprehensive process, because it gathers information on students’ performance during their whole information literacy learning process, as well as when they finish their task. Another important difference between these two terms is that assessment “…is done with the student, while evaluation is done to the student’s work. Assessment should engage students in the inquiry and production to communicate and demonstrate what they know” (AASL, 1998, pp. 67 cited in Gaunt & Morgan 2009).

Any one assessment task may fulfil more than one function:

- **Diagnostic assessment** is used to show a learner’s preparedness for a unit or programme of study and identifies any potential gaps in knowledge, skills and understanding expected at the start of study, or any other problems.

- **Formative assessment** is designed to help learners learn more effectively through giving them feedback on their performance indicating how it can be improved. For example, require learners to write a one page ‘reaction paper’ to a reading assignment, or prepare an annotated bibliography of research materials several weeks before the research paper is completed.

- **Summative assessment** is used to indicate the extent of a learner’s success in meeting the intended learning outcomes of a unit of study or programme. For example, give learners multiple choice questions, or an evaluation of citations used in their research paper or a portfolio review.

22.2 Principles of assessment

Effective assessment depends on three principles: validity, reliability and explicitness.

- **Validity** refers to whether the assessment measures what it is supposed to, is aligned with learning outcomes and proportionate in volume.

- **Reliability** refers to the accuracy, consistency and repeatability of the assessment, and whether it discourages opportunity for plagiarism.
• **Explicitness** refers to the clarity of assessment to all involved in the process. It is associated with the quality, quantity and timeliness of information given to staff and students regarding the assessment.

### 22.3 Assessment techniques

The primary recommended assessment tools to support students throughout the information literacy learning process are:

- **Checklists**: They should be visual task reminders to improve learner growth. Checklists should be provided at the beginning of the assignment so that they can be used during the whole learning project or task for self-feedback.

- **Conferencing**: A technique that is based on a discussion with the learner, among learners, or among the whole class to orally reflect on the information literacy process. It uses questions posed by the facilitator inquiring about the process of learning.

- **Portfolio**: It consists of the accumulation of student work over time. Portfolios are useful assessment techniques because it gives students the possibility of seeing their learning products become integrated into a final product.

- **Traditional tests**: Lists of questions with open or structured answer options which does not focus on content of knowledge.

*Example of checklist.*

![Example of checklist](image)

*Figure 8: Example of checklist (Guant & Morgan 2009 p. 106)*
Example of worksheet

![Worksheet Example](image)

Figure 9: Example of worksheet (Guant & Morgan 2009 p. 115)

22.4 Evaluating your teaching

It is essential to gather information which will enable you to assess the effectiveness of your teaching and the learning achieved. This will help you identify your successes and failures and provide evidence to inform your future practice.

22.4.1 Feedback from students

This can be obtained by direct and indirect means. Direct means include:

- Feedback questionnaires
- Group discussions at the end of sessions
- Comments boards
- Focus groups

22.4.2 Questionnaires

Questionnaires are widely used for collecting feedback and can cover all aspects of the design, delivery and assessment of the course of instruction.
22.4.3 Some tips to design your own questionnaire

- Make the aims of the questionnaire clear from the outset, e.g. “to identify student preference for online tutorials or printed worksheets at database training sessions”

- Questions should be relevant and appropriate to the aim(s) of the questionnaire - keep it tightly focussed

- Only ask about aspects of your teaching you are in a position to act on as a result of the responses received

- Make the questions short, precise and simple to answer. Avoid ambiguity and use straightforward language

- If possible, use a combination of ‘closed’ and ‘open’ questions. Closed questions provide ‘quantitative’ data by offering a choice of answers using tick boxes or requiring responses using a scale or number rating. They are quick to answer. Open questions are used for obtaining ‘qualitative’ feedback in the form of stated opinions and comments. Keep these to a minimum as they will take more time to complete and are likely to be ignored by some students

- Keep it short - one or two sides of A4

- The layout should be clear and uncluttered. Use lots of white space and a generously sized Arial font.

23. TEACHING TECHNOLOGIES

23.1 Information literacy modules

Cranfield Online Information Literacy Modules: This is a suite of Online Information Literacy Modules created by Cranfield University in the United Kingdom. The suite contains 9 distinct books covering topics such as Focussing your research question, Information sources and resources, Information search strategies and tactics, Advanced searching as well as referencing citation and avoiding plagiarism. To view go to http://info-lit.shrivenham.cranfield.ac.uk/index.html
Didactic Working Group: methodology for teaching information literacy.

Figure 10: Information Literacy Cranfield modules

Graduate Information Literacy Skills Guide: aimed at Postgraduate research students completing a PhD, research masters as well as postdoctoral staff. The resource is divided into six related modules: Research resource discovery, evaluating research resource results, tracking down results and keeping up to date, managing your information, ethics in using research information and publishing/disseminating your research [http://www.informationliteracy.ie/](http://www.informationliteracy.ie/)

Figure 11: Graduate Information Literacy Skills Guide (NUI Galway 2010)
23.2 Information literacy movies

- **University of Bergen, Norway Information Literacy plagiarism movie**: an award winning short film which deals with the problem of plagiarism which manages to be entertaining, humourous while getting its point across about the hazards of plagiarism in an effective manner. [http://www.youtube.com/watch?v=Mwbw9KF-ACY](http://www.youtube.com/watch?v=Mwbw9KF-ACY)

![Figure 12: A Plagiarism Carol: YouTube](image)

23.3 Short tutorials University of Bergen tutorial: Search & Write

It is an online course which aims to help students with thesis writing. It shows students a number of different methods to help get started with writing their thesis and a number of different information search methods. One of the most important goals of the Search & Write course is to help learners become more information literate [http://sokogskriv.no/english/](http://sokogskriv.no/english/)
24. PRESENTATION TECHNOLOGY
(Gaunt & Morgan 2013)

24.1 Prezi

Prezi is a piece of presentation software which provides an exciting alternative to PowerPoint. In contrast to PowerPoint, Prezi allows you to illustrate concepts in a highly visual, non-linear way. Text, images and videos can be added to a large canvas and the presentation can then zoom in and out and pan around the canvas.

Prezi Tips:

- **Be inspired by the showcase on the Prezi web site**: Invest some time looking at top-quality Prezis before taking the plunge. Understanding the potential of the software is key to creating great Prezis.
• Sketch ideas out first: Start with a large piece of blank paper and a pen rather than using the software straight away. Sketching helps you think about the shape and structure of your presentation and how you will use metaphor and visuals.

• Think differently: Begin your presentation from scratch; do not just convert your PowerPoint into a Prezi. This software requires you to think visually while considering the overall message of the presentation and the relationship between the various elements. You will find the process quite different from that of creating slides.

• Allow time for learning the software: Using Prezi for the first time entails grappling with an unfamiliar interface and menus so make sure you have time available.

• Include an overview: Presentations work well if the canvas shows an overview of the structure of the whole presentation, which can be returned to during the presentation.

• Use scale. Whether zooming in on the details of a diagram or zooming out to a large image, good presentations will often use massive changes of scale both for dramatic effect and increased understanding.

• Don’t make your audience sick!: Audience members can experience motion sickness if there are lots of quick transitions from one end of the canvas to another. Group similar ideas to avoid moving around the canvas too much.

• Be flexible: It is possible to create a presentation path around the canvas, but it is also possible to deviate from the path in response to your audience (e.g. zooming in on a particular section in response to a question from a student), or even not to have a path at all.

• Sign up for an educational licence: This will provide more space for storing Prezis and also offer the option of making a presentation private.

You can sign up for a free account at http://prezi.com. (see Fig 14 below)
24.2 PowerPoint revisited

PowerPoint is suited to a wide range of teaching environments, but be sure to mix it up with other teaching techniques within your session to maximise variety and enhance student concentration. You could break up your presentation with buzz groups, question and answer slots or other activities.

Top 10 PowerPoint tips:

1. **Limit the information on your slides** to key points only. Steer clear of dense text and allow adequate spacing between points.

2. **Limit the number of slides**, e.g. to no more than eight or nine for a ten minute presentation, giving students time to absorb information on each slide.

3. **Use clip art, pictures, charts, tables, diagrams, sound and video to enhance content.** Ensure that you are complying with copyright law and generally limit to no more than two graphics per slide.

4. **Avoid ‘noisy’ distracting backgrounds**, and make sure your text is legible. If possible, try out the presentation in the room you are going to be using.

5. **Use animation sparingly** and go for variety – setting all your text to ‘fly’ in bullet by bullet can get tiresomely predictable. Consider whether you actually need every individual bullet point to be introduced separately.

6. **Create a numerical key for your slides.** If you are pressed for time, jump non-sequentially to a slide by typing the number of that slide and pressing Enter.

7. **Check that text is not likely to be cut-off** at the edge of the projection screen – this means you need to make sure your margins are big enough.

8. **Do not apologise for any slide.** If the content is hard to read, redo it. Charts or tables should not be too dense or detailed.

9. To store a large file with lots of images, **compress pictures** by choosing the *Picture* tab and then clicking on the *Compress Pictures* button. Tick the box to ‘Apply to selected pictures only’, or leave the box unticked to compress all pictures in the entire presentation. Further compression settings are available by clicking the *Options* button.

10. **Finally, when you are giving your presentation, talk to the audience, not to the slides** on the screen behind you! Position your computer so you can see both the monitor and the audience. You may also want to keep a printout of your slides in your hand for easy reference.

24.3 Slideshare

Why not delve into [http://www.slideshare.net](http://www.slideshare.net) for some inspiration? You can upload your own presentations or download and view presentations created by other individuals and organisations. It is a valuable source of information and is also a useful place to pick up tips on presentation techniques and design. You can create a Slideshare account and sign up for the regular newsletter which highlights top presentations and other news.
Take a look at the education category at http://www.slideshare.net/categor

Figure 15: Slideshare

25. OTHER TECHNOLOGIES
(Gaunt & Morgan 2013)

This section features a small selection of tools which have the potential to enhance your teaching. It is by no means exhaustive but represents an excellent starting point for experimenting with technology in IL teaching:

1. Assessment and feedback tools
2. Audience Response Technology (ART)
3. Classroom management software
4. Image websites
5. Interactive whiteboards
6. Podcasts
7. QR codes
8. Social bookmarking
9. Tutorials and quizzes

10. Twitter in the IL classroom

11. Videos, movies, screencasts and vodcasts

12. Web conferencing

13. Wikis

25.1 Assessment and feedback tools
E-assessment allows students to get feedback on their skills and progress at a time and place that suits them, without additional burden on staff time. While not replacing face-to-face contact, it helps to put the student in control of their own learning and develops their autonomy in this area. 

**Turnitin** is an online service which analyses written text for matches with other sources.

![Turnitin Online Service](image)

**Figure 16: Turnitin Online Service**

25.2 Audience Response Technology (ART)
Audience response technology provides a popular and attractive option for incorporating interactivity into your teaching. It has been available for many years in the form of the well-known handsets (“clickers”) systems. However, the latest ART innovations include online polling software.
25.2.1 Clickers:
Benefits may include:

- added variety and interest
- ensuring engagement with content
- enabling participants to contribute anonymously
- improved knowledge retention
- opportunity to gauge understanding of particular points, so you can recap on any parts of the lesson which have not been understood
- an effective and time-efficient method of assessment
- providing feedback on a session
- rendering an otherwise passive session active

However, “clickers” technology is best used sparingly; it is good practice to limit the number of questions used since a session should not be driven by the technology!

25.2.2 Online polling
Online polling software is an alternative to “clickers”, and has a great advantage: you do not need to bother distributing handsets or worry about them disappearing. A useful tool is Poll Everywhere. Poll Everywhere - [http://www.polleverywhere.com](http://www.polleverywhere.com)

- Options include a multiple choice poll, a free text poll or a “goal” poll (donation polls for raising money)
- Responses can be made using texting, Twitter or via a web link
- If asking participants to respond by texting, the instructions for doing so are clearly displayed with the poll. The poll can be shown on the Poll Everywhere site or embedded into a PowerPoint slide, which updates the results live (n.b. a number of questions can be downloaded from PowerPoint at the same time).
- If using the web link option, poll questions can be collected together as a series on one webpage (see below)
- Quantitative results are presented in bar charts or tables, with qualitative responses from free text polls listed singly
- Results can also be downloaded to blogs or webpages.

25.3 Classroom management software
Once installed in an IT room, this software connects the teacher’s computer to all the students’ PCs. It can be used to:

- **Remove distractions:** To prevent students using Facebook or email during the session, you can allow access only to the specific web site(s) relevant to the lesson. Access to applications and to printing can also be limited as needed.

- **Improve display:** The software can relay the image from your monitor to those of the students. This provides a clear, close-up image if students are having trouble viewing the projector screen or reading small fonts.

- **Facilitate learning between students:** You can relay the image from a particular student’s PC to all student monitors. For example, effective search terms chosen by a student could be
shared with the rest of the class.

- **Monitor students**: You can view all the students’ PCs images via your own PC, to monitor the progress of each learner.

- **Help an individual student**: You can connect to a single PC to help with a specific problem.

- **Assess student understanding**: Features of the software include electronic testing and voting whereby a true/false or multiple choice question could be used for a quick assessment of students’ understanding.

### 25.4 Image websites

Images can be a good way of enlivening a presentation, and there are many freely available images on the internet. Licences and copyright vary widely, and so it is important to check details for each image.

#### 25.4.1 MorgueFile

MorgueFile - [http://www.morguefile.com](http://www.morguefile.com) - provides a stock of high quality images. The free photos section allows you to download photos and states that you may “copy, distribute, transmit the work and to adapt the work. Attribution is not required. You are prohibited from using this work in a standalone manner”. The full licence conditions are set out at: [http://www.morguefile.com/license/morguefile](http://www.morguefile.com/license/morguefile)

#### 25.4.2 Flickr

Flickr - [http://www.flickr.com/search](http://www.flickr.com/search) - is a photo-sharing web site and the quality of the images varies widely, as do the licence regulations. To find photographs held under a “Creative Commons” licence click on “advanced search” to the right of the search box then scroll down to click on . Only search within Creative Commons-licensed content”. Some photos may have certain rights reserved, so make sure you read the licence details carefully. Many photos require you to “give the original author credit” - this can be easily done by providing an author acknowledgement in small text beside the photograph used.

#### 25.4.3 British Library Images

These images - [http://www.imagesonline.bl.uk/britishlibrary](http://www.imagesonline.bl.uk/britishlibrary) - are mainly historical. They are drawn from the British Library’s numerous print and photograph collections. Images need to be acknowledged and in some cases permission must be sought.

In addition to these sites there are image search tabs on search engines such as Google Images [http://www.google.co.uk/imghp](http://www.google.co.uk/imghp) and Yahoo Images [http://images.search.yahoo.com](http://images.search.yahoo.com).
25.5 Interactive whiteboards
Interactive whiteboards can be found in some seminar rooms and IT training rooms. The screen image from the presenter’s computer is projected onto a touch-sensitive wall-mounted whiteboard. The teacher controls the whiteboard using their finger, a stylus, a pen or other pointer, rather than using the computer’s mouse (although this option is still available). Additionally he/she can treat the device as an electronic whiteboard to annotate the on-screen display and write notes. In some lecture theatres whiteboards are replaced by small touch-sensitive screens at the front of the room, as an alternative means of manipulating the display being projected.

Uses for interactive whiteboards include:
- Operating any computer software, for example a web browser, database applications or PowerPoint presentations
- Annotating the on-screen display and capturing the notes for use at a later date.
- Brainstorming and concept mapping: to capture traditional whiteboard or flipchart style notes. Interactive whiteboards allow freeform writing and drawing. This is ideal for getting students actively involved. This information can be saved electronically for future use.
- Seamless presentations: the teacher can fully engage with the audience rather than needing to stand by the computer to use the mouse.

25.6 Podcasts
Podcasts [are] digital audio programs that can be subscribed to and downloaded by listeners via RSS.

Having subscribed to the podcast, the listener will automatically receive each new episode, which can be heard or viewed via mobile devices such as smartphones, tablets, MP3 players and laptops as well as on a PC. However, whilst the original concept of the podcast was that they were episodic and required subscription, many podcasts are “click to listen” / "Podcast on-demand" approach is perhaps now the most common model.

Podcasts are a great way to supplement your face-to-face teaching, helping you to reach your students beyond the classroom. For example, you could create an audio tour of the library or record some quick tips on information literacy topics.

Benefits of podcasts:
- Students can learn anywhere or at any time freeing them to carry out other activities as they learn such as commuting, exercising or household chores!
- They can help students with visual disabilities, dyslexia, or those who prefer to learn by listening
- They can be re-played so are ideal for non-native English speakers and can act as memory aids.

25.6.1 Creating podcasts:
- When deciding on the content, aim to keep your listener’s attention by making the podcast entertaining and not too complex, using a variety of voices and keeping the time span short
25.7 QR codes
QR (quick response) codes are a complex type of barcode which connect the user via smart technology to data or text. In order to access the information a smartphone with QR code reader software installed is required. (Netbooks, laptops and tablets can also be used, as long as they have a camera and the QR code reader software.)

Potential uses for QR codes in IL teaching:
- Adding them to worksheets to allow interactivity in responding to questions via text message during the session
- Adding them to handouts, relying on the novelty value to increase the likelihood of students accessing follow-up resources via URLs after the session
- Displaying them around the library to direct users to learning resources via URLs as and when they need them, thereby offering IL support outside formal sessions. For example, a QR code could be displayed next to the law section of the Library which links the student to a web page which displays a video on finding law reports.

Barriers to using QR codes:
- Some students do not have smartphones
- Low awareness amongst students (and often library staff too) of what QR codes are
- Low numbers of students installing QR code reader software on their phones
- Students may be deterred by mobile phone data charges.

Questions to ask before implementing QR codes:
- Are the web sites to which you direct your users designed to be mobile-friendly?
- If the QR codes are displayed within the Library, do your noise policies allow for users making a phone call (if the QR code gives a phone number) or watching a video with sound (if the QR code links to an instructional video)?

How to create a QR code:
- Use a search engine to find a free QR code generator, e.g. http://qrcode.kaywa.com
- Enter the content you require and generate the QR code
- Save the QR code as a picture
- If you are using a long URL you might find it is best to use a free URL redirection service (e.g. http://tinyurl.com) to shorten it before you convert it to a QR code.

How to read a QR code:
- Go to the app marketplace for your phone to find and download free QR code reader Software
- Select the app, which will then display a viewfinder rectangle on your phone screen
TEMPUS PROJECT 517117-TEMPUS-1-2011-I-TEMPUS-JPRES Developing information literacy for lifelong learning and knowledge economy in Western Balkan countries.

- Scan the code by placing it inside the rectangle and the app will do the rest!

**QR codes are worth experimenting with because they can:**

- **Capture student interest.** The current low awareness of QR codes can have a positive effect if it means students are intrigued enough by the codes to try and find out more.
- **Encourage student participation.** Students often enjoy additional opportunities to use their phones.
- **Minimise visual clutter.** QR codes can look more attractive in handouts and on posters than text or URLs.
- **Enhance IL teaching.** Most importantly, QR codes offer huge potential for extending IL support beyond formal sessions and for providing links between the physical and the electronic.

### 25.8 Social bookmarking

Social bookmarking tools such as Diigo - [http://www.diigo.com](http://www.diigo.com) and Delicious - [http://www.delicious.com](http://www.delicious.com) - are a convenient way of bringing together websites in an easily accessible place. Bookmarks are classified by “tags” (subject terms), and can be annotated with explanatory text. There is no charge to register for these tools and they are simple to use. Most social bookmarking sites offer a downloadable toolbar enabling you to conveniently bookmark websites.

These tools can be useful as a way of promoting useful websites to students e.g. providing links to supporting materials or further reading to provide a hyperlinked list of websites used in a teaching session, thus allowing students to access multiple websites from one location without having to type in multiple URLs.

For a comprehensive list of social bookmarking tools see Phil Bradley”s list at [http://www.philb.com/iwantto/web2pagebookmarking.htm](http://www.philb.com/iwantto/web2pagebookmarking.htm)

### 25.9 Udutu

Udutu offers easy to use online learning solutions designed to help small and large organizations build and distribute online training courses You can sign up for an account at: [http://www.myudutu.com](http://www.myudutu.com) No technical expertise is required; follow a step by step process to create your tutorial then download and host on your own server.
25.10 Xerte
Xerte is a suite of open source e-learning tools created by Nottingham University - [http://www.nottingham.ac.uk/xerte](http://www.nottingham.ac.uk/xerte) The full software can be downloaded and installed on your computer, providing you have administrative rights. The full version requires some coding skills, so you might find XerteOnline Toolkits a better option.

Xerte Online Toolkits is a browser-based course authoring tool. You can sign up for an account to try it out at [http://www.techdisplayxerte.info](http://www.techdisplayxerte.info) but you will need to export any learning objects you create. The software can also be downloaded from the Xerte website. Whether you create the learning objects online or on the downloaded software, the final product must be hosted on your own server.

For examples of tutorials created using Xerte at Loughborough University, see [http://learn.lboro.ac.uk/course/view.php?id=5973](http://learn.lboro.ac.uk/course/view.php?id=5973)

25.11 Twitter in the IL classroom
**The backchannel – using Twitter**
A backchannel is defined as “a line of communication created by people in an audience to connect with others inside or outside the room, with or without the knowledge of the speaker at the front of the room”. **Twitter** is one of the main ways the backchannel is used. This is now a familiar feature in conferences and to a lesser extent in teaching. Typically, conference organisers will assign a hashtag for tweeters to use, thus enabling tweets to be searchable and easily located. In some cases, the stream of tweets containing the hashtag will be displayed on a screen behind the presenters throughout a conference. There are tools to collect tweets with a particular hashtag such as Twitterfall (http://www.twitterfall.com).

The backchannel can be used in teaching in the following ways:
Asking questions: students can ask questions during a teaching session, which the presenter can then answer, either during the session or at the end.

Sharing resources: useful resources can be shared with the rest of the class.

Offering suggestions: students can suggest topics they would like to be addressed by the presenter.

The backchannel can be an effective way of improving interactivity in a teaching session.

Issues to consider when using the backchannel
There have been many instances of the backchannel “biting back”, with rude, critical and in some cases offensive comments made via Twitter (Atkinson 2010 cited in Gaunt & Morgan et al 2009)). Think carefully about whether this is an appropriate method to use with your audience: the backchannel may work well with a small class of postgraduates or staff but not necessarily as well with a large class of undergraduates. Additionally, not all students will use Twitter and those who do not may be reluctant or opposed to signing up.

25.12 Videos, movies, screencasts and vodcasts
Ever thought of using original videos or streamed video clips from the web in your IL sessions? There are numerous benefits to this method:

- A short video can help focus attention and provide variety within a presentation/workshop.
- A video will give students a welcome break from the presenter and give you some breathing space too.
- A well chosen video will help make more memorable the points which you have presented in your session.

Note: video clips should be used to reinforce the content of your session not merely to deliver information.

Methods for obtaining IL videos include:

1. Use a video which has been prepared externally

Video sharing web sites such as YouTube offer an increasing number of videos on IL themes such as identifying source types, referencing, the research process etc. The search facility on YouTube is limited, so performing an Advanced search on Google with Youtube.com specified as the domain may be the best strategy. The quality of production and content varies considerably. It is advisable to seek permission from the copyright owner to use them. This is particularly important in cases where the video includes 3rd party copyright content which the creator does not own.

2. Create your own simple IL movies

You don’t need a film crew and a lot of equipment to create some effective IL movies quickly and easily. Vodcasts can be created with just a webcam with a microphone.

25.13 Screencasts

A screencast is a recording of a desktop demonstration with either a voiceover or captions. Numerous screencasting software packages are available.
Camtasia and Captivate offer features such as editing options, zooming and automatic captioning. Captivate would need to be purchased from an external supplier. However, Camtasia has been purchased and installed on two INSRV laptops.

Using free software such as Screenr entails recording the screencast with sound in one take; if you make a mistake you have to begin again. One benefit of using Screenr is that your screencasts are hosted on your Screenr page and you can link to them quickly and easily. You can upload your screencasts to video hosting/sharing services such as YouTube and Vimeo. To record a voiceover with any of the screencasting software you will need a microphone on your computer, a headset or a webcam. Tip: write out your script and time it before you start recording.

Figure 18: SCREENR

26. CONCLUSIONS

The intention of the Didactic Working Group was to present only some guidelines regarding Information Literacy teaching methods. All these recommendations will be put into practice by each partner after adapting the material to the local specificity.

Information Literacy enables us all to contribute to strengthening knowledge, creating new skills, adapting to new technologies but also to the progress in scientific research and higher education of the next generation.
REFERENCES


National University of Ireland Galway (2008) Graduate Information Literacy Skills Guide, Galway: National University of Ireland Galway, available:


Appendix 1: Faculty Feedback - Sample Email

Dear Dr. Smith,

I wanted to get back in touch with you about the library session I led for your class on [date]. I am doing this in an effort to provide the best service possible for you and your students. I would appreciate it if you would send me your evaluation of the session.

1. What worked and/or did not work?

2. Did we cover the material you wanted covered? Did we include anything unnecessary or leave anything out?

3. Did your students have any feedback about the session, either positive or negative?

4. Did you notice a difference in the quality of their research for the next paper?

Answers to these questions and any other comments or feedback you have would be very helpful.

Thanks for taking the time to help us improve our library sessions. If you have questions or would like to discuss this, please feel free to email or call me at 555-1212.

I look forward to hearing from you.

Marian Librarian
## Appendix 2- Research Log

### I. Search Terms

**What is your topic?**

List keywords that are relevant to your topic. Think of both broader and narrower terms!

### II. Articles (Databases & Indexes)

**Most successful searches:**

*Example: smoking AND advertising AND teens – 21 hits*

### III. Books (UTNetCAT)

**Searches you've tried:**

*Example: Title Keywords: jell-o*

**UTNetCAT subject headings relevant to your topic:**

*Example: cookery (gelatin)*

**Books you'll look for:**

*Example: Jell-O: A Biography - TX 814.5 G4 W96 2001 UGL*