

Manual Toolbox Information Literacy



Toolbox Information Literacy Skills – Fontys University of Applied Sciences
Education and Research Department, April 2015



Colofon
Authors

Fontys Education and Research Department, April 2015
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1. Preface

Today, digital skills and more particularly information literacy skills are needed more now than ever before. These skills are also referred to as 21st century skills. Libraries and teachers have a very important role to play in transferring these skills to students. To support both groups in this quest, the Fontys Education and Research Department has developed a Toolbox, in close cooperation with the Fontys libraries. This Toolbox provides a clear and appealing set of educational tools, which can be used flexibly in different workshops and classes that deal with Information Literacy.

In this context it is very important that the examples used are current and that the didactics and technology used to teach these classes or workshops are state-of-the-art. The materials used, have to be offered just-in-time and be made accessible online. There is a growing demand for customized workshops or classes, that fit in seamlessly with the needs of the specific educational programs.

2. Definitions and terminology

Information literacy skills

Information literacy is a combination of skills which enable an individual to identify which information is needed to fulfill the need of information, how to gather this information efficiently and effectively, how to evaluate and process the information and how to correctly turn the information into a usable product and present en disseminate this product in a group/organisation.

(Source: Informatievaardigheden, Werkgroep Normering Informatievaardigheden, 2005)

3. Toolbox content

The Toolbox contains (educational) materials that deal with making students information literate. These materials can be used by Fontys information specialists or – teachers to set up workshops or classes. Ultimately, the goal is to embed information skills in the curriculum, with tools and materials that are easily accessible, appealing and can be used stand-alone by all Fontys students

The materials included have partly been developed by members of the projectteam “Development Toolbox Information Skills”. In addition materials have been included that are developed by information specialists, employed within the different Fontys Schools and educational programs. Also, materials that are available online have been included in the Toolbox. Materials that form a generic part of information literacy skills and are not Fontys-related, have been added to the different part of the process, under citation of their original source.

To navigate the Toolbox, the menu in the upper bar can be used, which contains an elaborate search function, a learning goal table and a tagcloud.

Each of the materials includes an indication of how these can be downloaded and incorporated in one's own Information Literacy Skills course. This way, the original data will always be available on the site, but downloaded materials can be customized as desired or incorporated in your own, customized course or workshop.

3.1. Assumptions

The following assumptions were used when structuring the Toolbox:

- Usable by any Fontys information specialist or – teacher
- Contains educational materials suitable for bachelor- en masterprograms,
- Is structured modularly so that materials can be selected and used as desired,
- Can be used stand-alone
- Is managed and updated centrally,
- The materials offered can be integrated in the Fontys curriculum
- Speaks to the experiences of the students,
- Is easy to use in *blended learning* or *flipping the classrooms* initiatives
- Offers possibilities to share knowledge, interact and share best practices,
- Offers a wide variety of (interactive) workforms.

3.2. Toolbox and students

As outlined in the focus points, the Toolbox is intended primarily to support teachers and information specialists as they develop and give workshops or classes in Information Skills. Large parts of the materials available are also appropriate for students to independently master parts of the Information Skills process.

However, it is not advisable to grant students direct access to the Toolbox. This will give them access to a vast collection of materials and they subsequently need to look for the right instruction to answer the question they have.

A possible solution is for each information specialist or teacher to offer a selection of materials that is suitable for their own students, through the usual channel (schoolportal, library information site, N@tschool! etc). This information can be specified per module or be offered additional to the curriculum.

In this case, students follow a link to the Toolbox, but is directed to the appropriate item or materials. In case the student wants to browse through the materials, this is not a problem.

4. Educational Theory

Experiential learning model by Kolb

When developing workshops or classes in Information Literacy Skills, a strong didactical foundation is important, like e.g. the experiential learning model by Kolb.

Experiential learning can serve as a tool to stimulate active learning. With experiential learning, participants will typically move through a number of phases. These phases together make up the learning process. In Kolb's model a number of subsequent phases of the learning process are identified (figure 1).

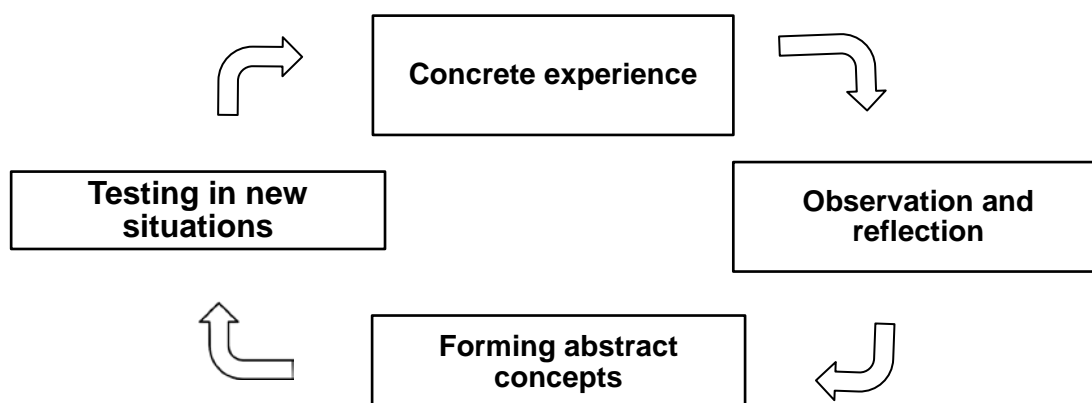


Figure 1: Kolb's Model of Experiential Learning

Experience: the participants introduce an experience they had or they execute assignments that refer to their current situation.

Observation and reflection: participants reflect on their actions and experiences

Forming abstract concepts: participants are explained a theory or acquire theoretical knowledge elsewhere.

Testing in new situations: assignments that make use of the theory are executed. The knowledge or skills offered are subsequently used by the participants. Through this manner of dispersing knowledge, all phases of experiential learning are completed.

Combining theory with practical assignments encompasses the phases: *forming abstract concepts*, *testing in new situations* and *experience*. The *Experience* phase can be reached through use of subjects the student introduces or of subjects that are defined in collaboration with the different schools. The *observation and reflection* phase includes the grading of the assignment and the evaluation of the workshop.

4.1. Learning goals

The process of acquiring information literacy skills consists of five steps (Brand-Gruwel, Wopereis & Walraven, 2009). The phases form the basis of every search process. Each phase is subdivided into a number of activities or steps, that can be executed to let the process run as smoothly and efficiently as possible. In addition to executing these steps, regulation and evaluation take place constantly.

For each phases, specific **learning goals** can be identified (Table 1).

These learning goals indicate the competencies that a student masters upon completion of the phase. The materials listed with each learning goals are developed specifically to explain and train the learning goal.

<i>Phase</i>	<i>Learning Goal</i>
<u>Prior Knowledge</u>	Can activate prior knowledge and determine what (additional) knowledge is required
	Can identify potential informationsources (Google, Wikipedia,
<u>Define</u>	Can identify a subject (key words, terms)
	Can translate a research question into literature requirments
	Can frame a subject
	Can formulate main research question and secondary questions
	Can create an overview of search terms (synonyms, related terms)
	Drafts a research plan (where to look and how to address subjects)
<u>Search</u>	Can determine the best search method (snowball etc)
	Formulate a search strategy (Boolean, truncate)
	Collects information using different methods (and different sources of information)
	Uses advanced search options of a databank
	Can document and manage information (reference software)
<u>Select and assess</u>	Can distill outline
	Can use predefined criteria to evaluate information
	Can acknowledge contradictions and new information
	Can judge information based on reliabilities /usability
<u>Process</u>	Can process information and translate it into a new product or presentation
	Acknowledges and honours the guidelines for use of information
	Can compose a literature list
	Can incorporate references into texts
<u>Present</u>	Can select a form of presentation that is appropriate for the topic
	Knows how to disseminate the product effectively
<u>Evaluate</u>	Can evaluate both processes and products

Tabel 1: Leerdoelen Informatievaardigheden

5. Employment and use of the Toolbox

The Information Literacy Skills Toolbox can be used in different ways, through its elaborate menu options. Firstly, the menu will be explained, then the different buttons and possibilities it offers.

5.1 Menu

The Toolbox has two menus:

1. **Blocks:** when opening the Toolbox, you will find eight blocks on the start-up screen. The Information Literacy Skills Toolbox deploys a six-phased model (Figure 2):
 - o Define
 - o Search
 - o Select and assess
 - o Process
 - o Present
 - o Evaluate

These six phases form the basis for any searchprocess. Click a phase to see which materials are available.

In addition, a block has been added for:

- o Prior knowledge
- o All

If it is unclear for which phases you need materials, and you just want to browse to see what is available, click All.

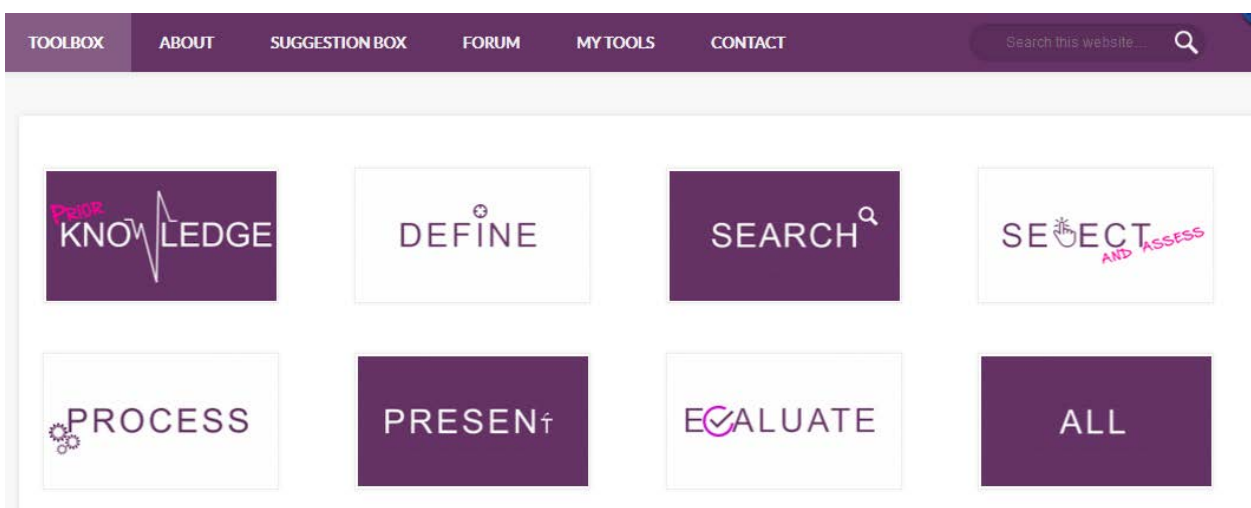


Figure 2: Toolbox Menu - Blocks

2. **Menu bar:** in the purple bar at the top of the page, different option of the Toolbox can be selected (Figure 3):
 - A. **Toolbox:** just like the blocks above, this too consists of the six phases of the search process, supplemented with 'prior knowledge' and 'All'. In this menu, each phases is subdivided into learning goals, which allows for a targeted search for any part of the six phases.
 - B. **About:** this section reveals more information on the Toolbox, offers a manual, the learning goals matrix (see 5.5), a disclaimer and references.
 - C. **Idea box:** your source for lesson plans and a place where you can make your own materials, lessons or ideas available to others.
 - D. **Forum:** this gives access to an interactive forum, meant to share knowledge, exchange experiences and add materials to the Toolbox.
 - E. **My Tools:** a section where you can temporarily save selected materials with the purpose of downloading them at a later time.
 - F. **Contact**

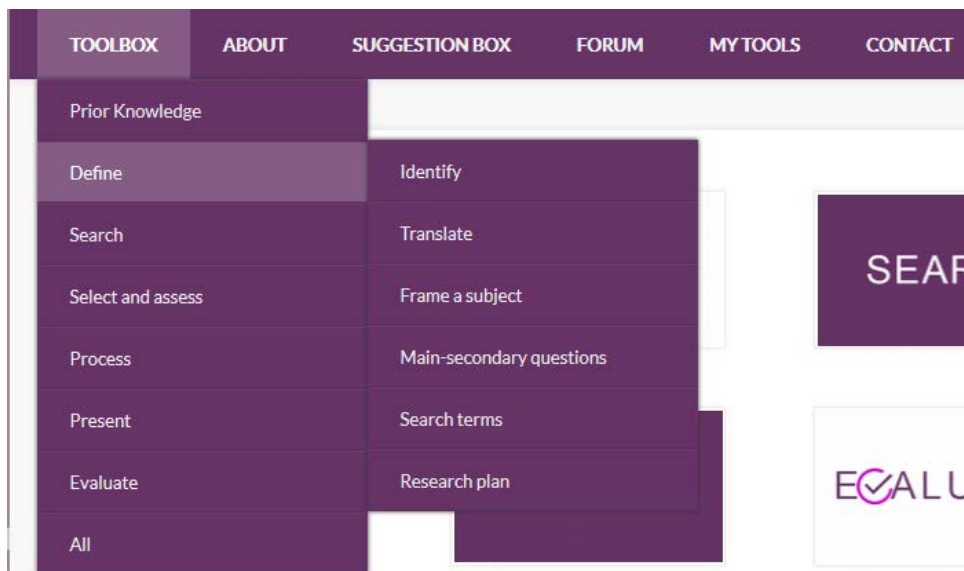


Figure 3: Toolbox Menu – Fold-out menu

5.2 Search options

Several search options are available within the Toolbox:

1. The search field in the upper, purple menu bar. (Figure 4)
2. The white search field in the lower bar (Figure 5)
3. The tagcloud, where you can click on the different types of materials. (Figure 6)

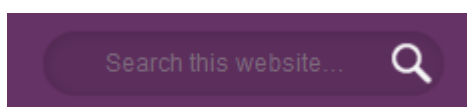


Figure 4: Searchfield in menu bar



Figure 5: Searchfield at the bottom of the page

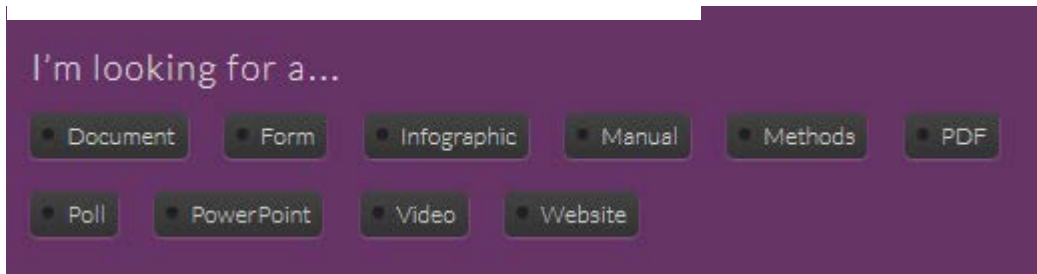


Figure 6: Tagcloud – search by material types

5.3 Information per item/material


Apart from the search option and the menu offered, all the materials offered come with additional information, such as links to the learning goals they refer to and links to related materials. How this works exactly is described below, by using an example (Figure 7).

1. Links to websites have been included in the text.
2. In case related materials or supplementary materials are available in the Toolbox, links to those are included.
3. If the materials are physically included in the Toolbox (unlike a link that takes you to an external website), they can be downloaded to your personal files folder. Click 'Download' and the material can be saved (and if desired renamed) in a folder of your choice.
4. At the bottom of the page, the phase to which the material belongs and the learning goal that it related to, is indicated. In this example:
Phase: Search
Learning goals: Search options
Information sources
5. Below the material name, the material *type* is indicated. This seems superfluous when you have opened the material and are looking at it, but this indexation offers you the possibility to enter specific information types through the tagcloud. In addition, it makes it possible to click through to comparable materials.

TOOLBOX ABOUT SUGGESTIONBOX FORUM MYTOOLS CONTACT

Search the website...

Search methods



09-Search methods from HvA Bibliotheek on Vimeo.

1. The most used search method is simply type terms into a searchengine. But there's more. This video is a part of a series about information literacy. How to use smart methods to find information? Students explain to students how to act. en.

Source: Library Hogeschool van Amsterdam in collaboration with HvA Webcolleges.
More information: bib.hva.nl/nl/informatievindenenverwerken/video

3. Instructions for re-using this material

If you want to use this video in a presentation: click the Share-button at the righthand of the videoscreen an chose the required option.

2.

Add to My Tools

5. Video

All | Search | Search method

4. ★★★★★ (1 votes, average: 5.00 out of 5)

Figure 7: Navigate materials

5.4 Idea box

The Idea box is subdivided into:



Figure 8: Lesson plan

Ideas for lessons

This section provides examples of complete workshops or lessons in information literacy skills, as they were given by teachers or information specialists within Fontys University of Applied Sciences. You can use these as inspiration for your own workshops.

Would you like to have your own materials included in the Toolbox? Please use this **form**.



Figure 9: Ideas for materials

Ideas for materials

The Toolbox represents a diverse collection of materials that can be used in developing your own workshop or lesson in information skills. In case you have own materials or workshops that you want to share with other Toolbox users, please use this **form** ([Available under Ideas for Materials](#)) to submit your materials to the Toolbox editors.

(Please note: in case your materials are hosted on a publicly available website, please include a link. If the materials are restricted, then please upload the document itself).

The editors will review the materials and include them in the Toolbox. After submitting materials, you will always receive feedback informing you how and where your materials have been included in the Toolbox.

[Focus points for submitting materials can be found here.](#)

5.5 Forum

The requirements used in developing and structuring the Toolbox, include: “to offer possibilities for sharing knowledge, create interaction and share best practices”.

To meet this requirement, a forum has been set up. Topics that this forum deals with include:

- Missing materials or topics in the Toolbox
- Exchange user experiences
- Upload new materials into the toolbox (these can be submitted under **Ideas for materials**)
- Questions about informationskills and lessons that deal with this topic
- Questions about developing a workshop or class
- Exchange of general topics in the field of information skills
- Spot mistakes or imperfections in the Toolbox
- etcetera.

The Forum is open to anyone, so reading messages is possible. In case you want to comment on a message, you need to be a registered user. To register yourself, please follow the steps listed under ‘Registration’.

To initiate a new discussion, indicate the category to which your discussion belongs. These categories correspond to the phases of the information skills/process that are identified in the Toolbox. This structure helps you to quickly find an answer to your question, in case the question has been previously asked by another user.

Hoi, vreemdeling!

Het lijkt erop dat je hier nieuw bent.

Klik op één van deze knoppen om je aan te melden!

INLOGGEN

REGISTREREN

Categorieën

Recente Discussies

Activiteit

Categorieën

Alle Categorieën	3
Algemeen	3
Definiëren	0
Zoeken	0
Selecteren en beoordelen	0
Verwerken	0
Presenteren	0
Evalueren	0

Figuur 10: Forum

5.6 My Tools

Every tool or item in the Toolbox includes the possibility to add the material to your own materials, through the link 'Add to My Tools'. (Figure 11)



Figure 11: Add to My Tools

By clicking this link, you add the item to your own collection of materials, available in the My Tools section.

If you have not added any tools to the 'My Tools' section, this section remains empty.



Figure 12: My Tools in Menu

The My Tools section can be very useful when developing your own workshops. It offers you the possibility to 'save' files you think might be helpful, without having to download them.

Also materials that you plan on using more often or that you want to put aside for a future workshop can be 'stored' here. The advantage that this offers include that you always have the newest version of this file; if the text within the file is updated before you use it, this text is updated automatically.

Please note: this application makes use of cookies. As long as the cookies of your browser are not deleted, the selected materials will remain available under 'My Tools'. In case the cookies are deleted (manually or automatically when turning off your laptop or pc) this list is automatically cleared.

5.7 Contact

The Toolbox Information skills is a joint cooperation by the Fontys Education and Research Department and the Fontys Libraries (and/or information specialists that work within the Fontys Schools). In case of questions or remarks concerning this Toolbox, please get in touch with the project team members, listed on the Contact-page.

To find out more about how your school or educational program uses Information Skills, please get in touch with the library or information specialist in your school. To find out their names or how to contact them, please go to [the Digital Library](#).

5.8 Assessment of submitted contributions

To increase the exchange of tools/materials, you can rate each of them by awarding them stars. On a scale from 1 to 5 you can rate the level of usefulness of a tool/item. To do so, please click on the stars at the bottom of the page and give us your rating.

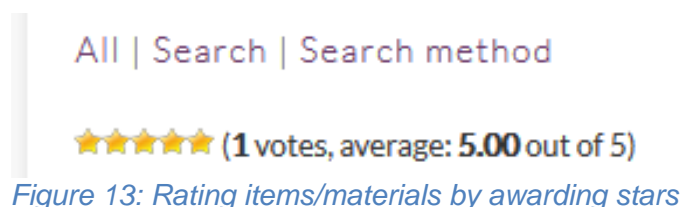


Figure 13: Rating items/materials by awarding stars

In the footer area of the Toolbox (the bottom purple bar in each screen) shows the three 'top rated' tools (figure 14). If you want to find out quickly which materials are rated as most useful by fellow toolbox users, please have a look at this section.

In case a particular item or material is rated as not useful by several users, the editors will reassess its usefulness for the Toolbox. As it is well possible that a better item/tool/material has been developed in the meantime.

If you feel an item is included in the Toolbox that should not be, you can leave your comment and motivation on the Forum.

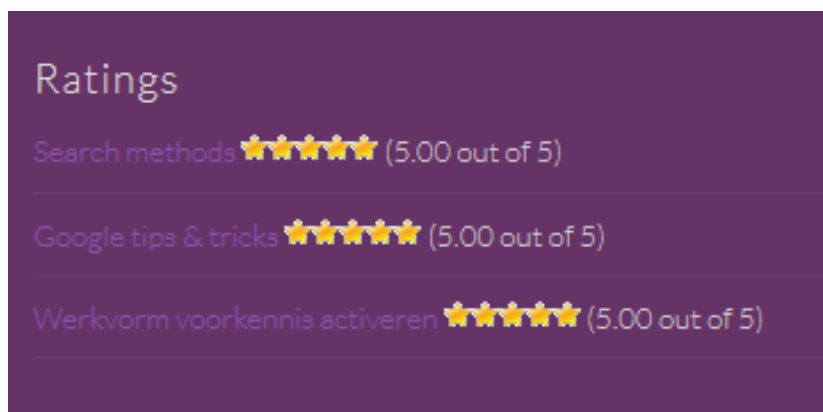


Figure 14: Top rated items/tools/materials

Figuur 15: Best beoordeelde tools

5.9 RSS

The Toolbox is a dynamic space and will be subject to continuous renewal of materials. As indicated under section [5.4 Box for ideas](#), teachers and information specialists can upload and share their own materials. These contributions will help the Toolbox to expand, thereby providing even more teachers and students with relevant tools and materials. If you wish to be updated when new materials are included in the Toolbox, it is possible to set up an RSS-alert and receive a notification if this occurs.



Figure 16: RSS button

Simply clicking the RSS button (Figure 1) in the left lower section of your screen, will open the RSS feed section. This page explains the different options of being notified when new contributions are included in the Toolbox. In case you use a feedreader (such as Feedly), it also allows you to copy and paste the URL directly into it so that notifications reach you in the same way as your other RSS notifications.

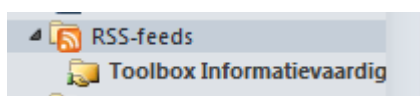


Figure 17: RSS-feed in Outlook

If you are an Outlook user, you can select Microsoft Outlook in the RSS page of the Toolbox. An extra line will appear in Outlook (figure 16), which will automatically display new messages as new items/materials are uploaded onto the Toolbox.

6. Developing a workshop

Before you start to develop a new workshop, class or curriculum, it is important to decide which content, learning goals and workforms you need to get your message across to your audience. Only then can you select the appropriate tools and materials that help you in this endeavour.

The online form '[Design form for Information Skills Workshops](#)' can serve as a guideline to achieve this. Part of this form consists of the learning goals table, as introduced in section [4.1. Learning goals](#). Below, the table is displayed again. It allows you to click through to the appropriate materials that support a specific learning goal.

The available workforms and materials can be used by anyone regardless of group size, location or workshop leader. Please make sure that you have sufficient variety in the workforms that you use, so that you end up with a balanced, efficient and appealing workshop for students.

<i>Phase</i>	<i>Learning Goal</i>
<u>Prior Knowledge</u>	Can <u>activate</u> prior knowledge and determine what (additional) knowledge is required
	Can identify potential information <u>sources</u> (Google, Wikipedia,
<u>Define</u>	Can <u>identify</u> a subject (key words, terms)
	Can <u>translate</u> a research question into literature requirements
	Can <u>frame a subject</u>
	Can formulate <u>main research question and secondary questions</u>
	Can create an overview of <u>search terms</u> (synonyms, related terms)
	Drafts a <u>research plan</u> (where to look and how to address subjects)
<u>Search</u>	Can determine the best <u>search method</u> (snowball etc)
	Formulate a <u>search strategy</u> (Boolean, truncate)
	Collects information using different methods (and different sources of <u>information</u>)
	Uses advanced <u>search options</u> of a databank
	Can <u>document</u> and manage information (reference software)
<u>Select and assess</u>	Can distill <u>outline</u>
	Can use predefined <u>criteria to evaluate information</u>
	Can <u>acknowledge contradictions and new information</u>
	Can judge information based on <u>reliabilities</u> /usability
<u>Process</u>	Can <u>process</u> information and translate it into a new product or presentation
	Acknowledges and honours the <u>guidelines</u> for use of information
	Can compose a <u>literature list</u>
	Can incorporate <u>references</u> into texts
<u>Present</u>	Can select a <u>form of presentation</u> that is appropriate for the topic
	Knows how to <u>disseminate the product effectively</u>
<u>Evaluate</u>	Can <u>evaluate both processes and products</u>

Table 2; Information Skills Learning goals

An example of the structure of a workshop is given below:

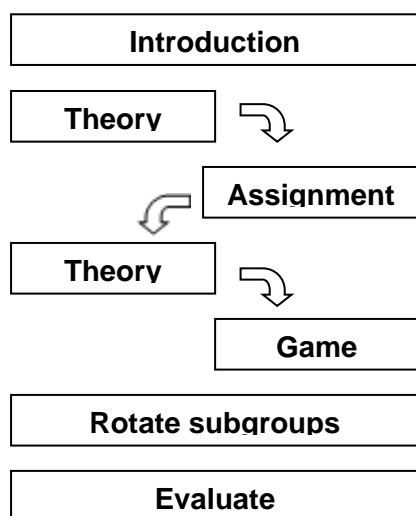


Figure 18: Example of a workshop structure

After filling out the first three columns of the Design-form, the [Learning Goals Table](#) in the Toolbox can be used to find and select the appropriate tools and materials.

7. Preparation before giving a workshop

When you are done developing your workshop or class, you can start preparing for actually giving the workshop. You could pay attention to the following focus points:

- Adjust PowerPoint to your own personal situation– including your own name and logo, your personal emailaddress etc.
- If necessary, include a hand-out with a detailed overview of the workshop agenda including links that will take students directly to the materials available for each section.
- Decide where you want to store the student manuals and databases, so that they are available for the students to access them.
- What ways of communication do you want to use to communicate with your students through the course of the workshop?
- What materials do I want to print out for the students? Which materials do you want to make available digitally so that they can fill them out, save them and send to you by email?
- Do you have the necessary log-in details for the websites that you want to use in your workshop or class? Examples include: Nearpod – Youtube clips – databases – Socrative or any other websites or tools you intend to use.
If you open these websites and databases before the workshop starts, this will save you time and hassle during the workshop.

8. Closing remarks

The project 'Developing Information Skills Toolbox' was initiated in October 2014. The first draft of the Toolbox was launched in May 2015. In the months in between, the project group worked diligently to put together this Toolbox.

We are very thankful to all the project team members for their hard work and effort. All of the members are employed by one of Fontys' Libraries or the Fontys Education and Research Department.

In addition, we use a substantial number of materials that we got from other Universities or institutions or private persons. The use of these materials has been cleared by the intellectual property owners for these materials. We are very grateful for the cooperation we got from each of the Universities, institutions and persons and the permission we got to share these materials.

In the development of the Toolbox, many teachers and lectorships of the Fontys Schools have granted their cooperation by answering all of our questions. This gave us an understanding of the different ways in which Information Skills education is being taught within Fontys. We hope that the Toolbox can contribute to this field of education, in different ways.

The completion of the first draft of the Toolbox, does not mean it is finished. This Toolbox is a dynamic collection of different tools and materials, to which hopefully many more will be added. We are particularly interested in the contributions that will be made by teachers and information specialists that are willing to share their materials with other Toolbox users.

Therefore, we invite everyone to use the Toolbox as much as you can and moreover: send us new materials, so that we can keep it updated and inspirational to others.

At the end of this manual we have incorporated the text of the Disclaimer. This gives you an overview of the rights that we need to comply with when using and expanding the Toolbox.

8.1 Disclaimer

The Toolbox for Information Literacy, <http://toolbox-en.fontysdienstoeno.nl>, (hereafter referred to as “website”) is a joint project of the Fontys Education and Research Department (hereafter referred to as “Fontys”) and the Fontys Libraries (including information specialists working at the different Fontys Schools).

The materials available on the website have partly been developed by members of the project team Development of Information Toolbox Literacy and partly by information specialists, employed in the various Fontys Schools. In addition, materials that were developed by others, regarding information literacy, were taken from the internet and included in the Toolbox (see list of references for more information).

The information on the website is solely intended to provide general information on information literacy and information skills. Fontys is diligent in ensuring this information is as up-to-date and accurate as possible. This is why the information provided can be altered or withdrawn at any time, without prior notice. Hence, no rights can be derived from the website.

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9. References - sources

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