

## Part II

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### Chapter 5. E-support research skills development

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#### 5.1 Introduction

Academic education aims to train students in research skills, e.g.: finding a topic, formulating a research question, writing a research proposal, conducting a literature review, writing the theoretical framework, applying research methods, analysing the data and reporting results. This is achieved through courses and skills training sessions offering a variety of assignments and different educational formats. Although students are provided with course books and articles, they will also have to gather their own material in order to enhance their (research) skills. Material should be easily accessible and available at the instant they need it for their research. This is, and could be further facilitated by offering students two digital options to acquire material necessary for research skills training: a web-based platform offered by the University Library (see paragraph 5.2) and a research skills wiki (proposal outlined in paragraph 5.3) to meet these requirements. Staff is stimulated to include references to such resources in course books to facilitate student learning. Furthermore, this chapter invites staff to participate in the development of the Wiki.

#### 5.2 Skills support services offered by the University Library

The University Library's website already offers the following skills support services:

1. The [Thesis SupportAll](#) portal provides tips and articles on the process of writing a thesis. Additionally, it addresses personal issues such as time management and fear of failure.
2. The [Writing Studio](#) helps students reflect on their thinking, searching and writing process.
3. [Peer Point](#) provides free research assistance to students.

In addition to these services, the University Library also offers curriculum-integrated skills training, [monthly training sessions](#) and [online training modules](#) (see Annex V).

The next paragraphs elaborate on each of three skills support services by evaluating their visibility and promotion and the type of assistance provided to students. The sections also include recommendations for improvement and lessons learned.

##### 5.2.1 Thesis SupportAll

[Thesis SupportAll](#)<sup>6</sup> was developed by the University Library and study advisers from SBE under the umbrella of the *Leading in Learning* programme.<sup>7</sup> The objective of the project 'Thesis SupportAll' was to develop an operational web portal covering thesis-related issues on both the bachelor's and master's level. The portal was created in close collaboration with student focus groups who provided input on content and design.

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<sup>6</sup> More information: <http://library.maastrichtuniversity.nl/skills-and-support/thesis-supportall/>

<sup>7</sup> The former university-wide programme 'Leading in Learning' has supported projects in the field of educational innovation. The programme aimed to share knowledge and experience, and to disseminate promising innovations throughout the university.

Thesis SupportAll provides information, tips and articles on the process of writing a thesis such as choosing a thesis topic and a brief academic writing guide. The portal additionally addresses personal issues such as time management, procrastination and fear of failure.

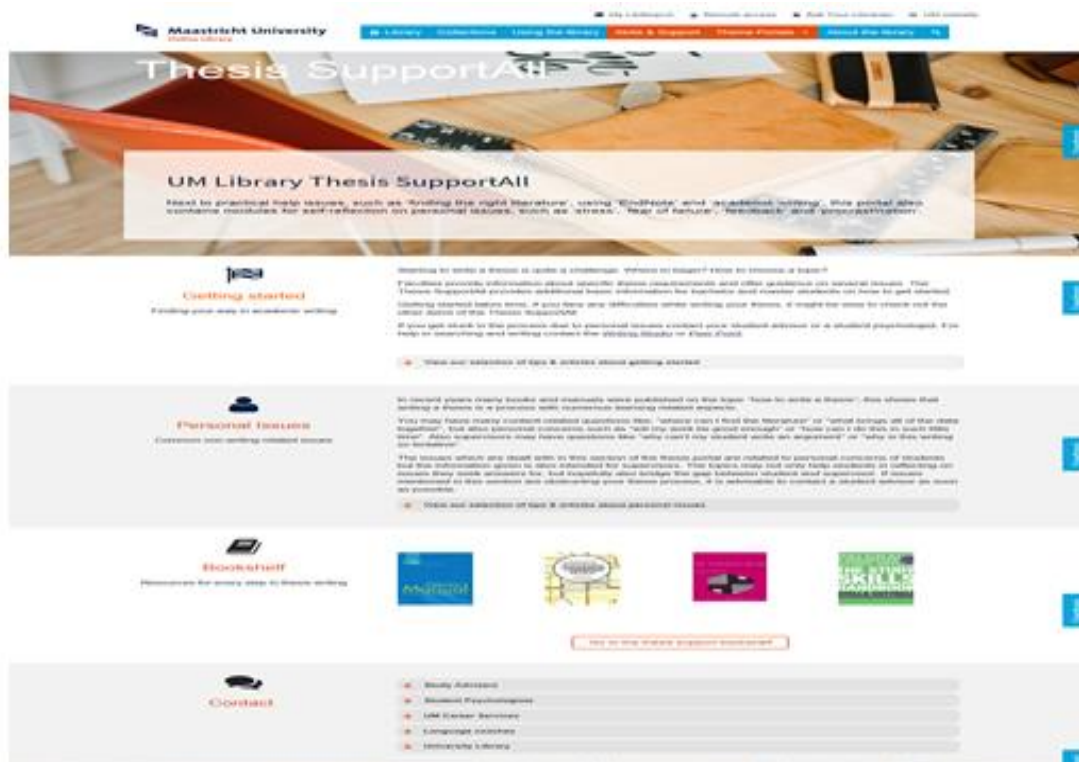


Figure 5.1 Thesis SupportAll website

## Visibility and promotion

Thesis SupportAll is promoted in the following ways:

- Library staff refer to the portal during skills training sessions;
- University Library website, Facebook, and newsletters;
- Flyers;
- Peer Point (see paragraph 5.2.2) actively promotes the portal on their website and during events.

## Use of the portal

Figure 5.2 demonstrates the growth of visitors. An analysis of the visitor logs revealed that the number of visitors peak during the library's training sessions.

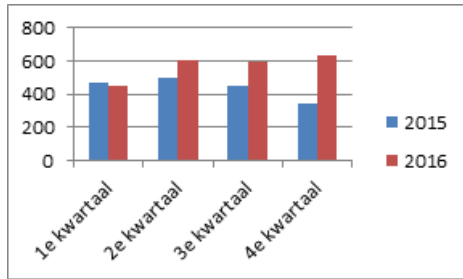


Figure 5.2 User statistics Thesis SupportAll (only available for 2015 and 2016)

### Evaluation

Thesis SupportAll was evaluated during the period of December 2016 to March 2017. Eight study advisers, eight thesis supervisors and several library staff members were interviewed in focus group meetings. Additionally, a survey among students was administered. The evaluation concerned user satisfaction regarding the content and design of the portal. Users were also asked to provide feedback on topics and information that in their opinion should be added to Thesis SupportAll. The evaluation has yielded the following conclusions:

- Most study advisers and thesis supervisors are not aware of the portal's existence.
- Both bachelor's and master's students who are in the process of writing their thesis are generally unfamiliar with the portal. Only a couple of students remembered that the Thesis SupportAll was mentioned during library skills training sessions.
- Both students and staff stated that the information on the portal could be expanded with articles on research methods, statistical analysis and faculty guidelines for thesis writing.
- The portal's design is evaluated positively. Some remarks were made on the website's structure and the amount of information on the entry page.

### Recommendations for improvement

- The portal should become a collaborative effort of the faculties (study advisers, thesis supervisors, etc.), Language Centre and University Library to expand and actualise the topics and to enhance the promotion/visibility of the portal. This could be achieved through the establishment of an advisory board comprised of staff and students.
- New topics to be added:
  - Links to faculty guidelines for thesis writing (thesis evaluation forms etc.)
  - Article on research methods
  - Article on statistical analysis
- Link to Thesis SupportAll on Student Portal.
- Include links to the portal in course books and course information (especially skills courses and thesis manuals).

### Conclusion

Although the number of visitors of the Thesis SupportAll portal is gradually increasing, more attention should be paid to promotion. Make sure the portal is advertised on the Student Portal and in course books. Collaborate with thesis supervisors to raise more awareness of the existence of this service. Also make sure to add new topics and find a way to keep the information up to date.

### 5.2.2 Peer Point

[Peer Point's](#)<sup>8</sup> mission is to help students improve their skills in searching, referencing and writing by providing free research assistance on topics such as developing search strategies, using databases, structuring papers, and referencing. Peer Point is staffed by students trained at responding critically and constructively to the work of fellow students. Students can set up a private appointment or can attend one of the daily session at the University Library.

#### Visibility and promotion

Peer Point is promoted in de following ways:

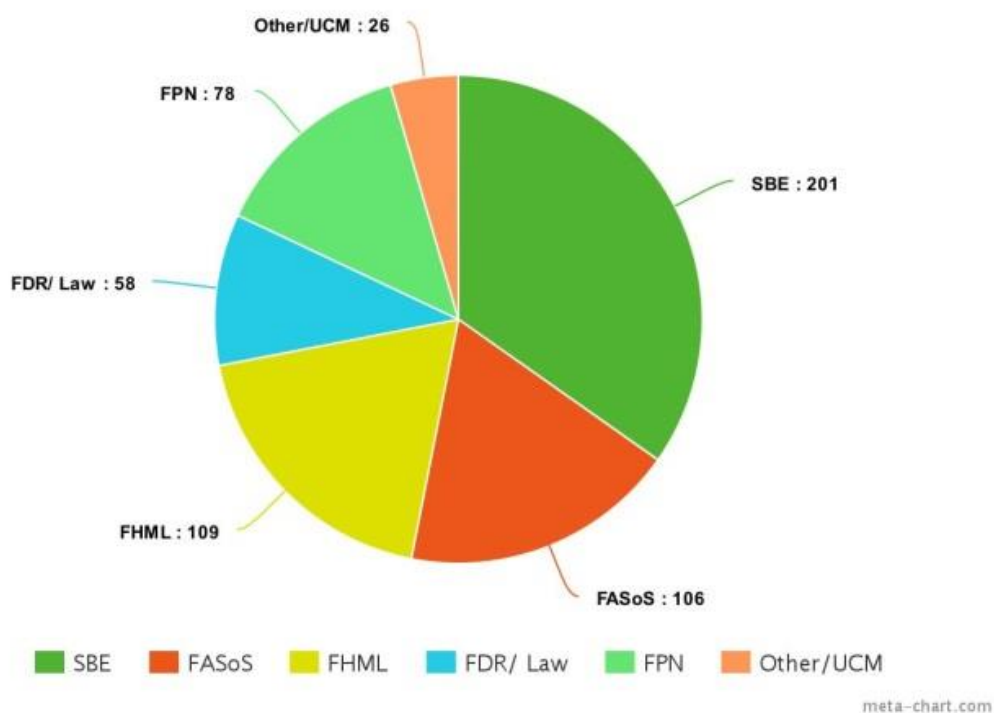
- Library staff refer to the portal during skills training sessions;
- University Library website and newsletters;
- Flyers;
- Facebook has become the services' main method of communication;
- Peer Point students are present at events such as the introduction week and organise workshops in university buildings;
- Peer Point students wear a red polo shirt with the text Library Student on the back;
- At the University Library, Peer Point operates from a small room next to the front desk with a Peer Point sign next to the door;
- A sandwich board and video screen at the University Library advertise Peer Point's services.

#### Overview of assistance provided

Since its foundation in 2011, 582 students have approached Peer Point for help. The numbers of request increase on an annual basis, except for the academic year 2015-2016. As of January 2017, 87 students have used the service during the academic year 2016-2017. Figure 5.3 shows the number of inquiries per faculty.

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<sup>8</sup> More information: <http://library.maastrichtuniversity.nl/service/peer-point/>



**Figure 5.3 Peer Point questions per faculty**

Table 5.1 provides an overview of topics on which students consult Peer Point. It should be noted that students are referred to specialists within or outside the University Library in case Peer Point is unable to help with the problem at hand. For instance, students who face language-related issues, are often referred to the Writing Studio (see paragraph 5.2.3). In some cases, students are referred to content specialists. Additionally, many students are advised to contact their supervisor or tutor to address the problem, or to get more information which could help Peer Point in the process of answering the student's question. Finally, several students have been advised to attend data analysis workshops at SBE.

**Table 5.1 Reasons for approaching Peer Point**

	2012	2013-2014	2014-2015	2015-2016	Total	Perc.
Referencing	12	15	26	25	78	11%
Structuring	17	55	34	57	163	23%
Literature	18	34	23	42	117	16%
Writing	14	7	25	46	92	13%
Research	19	13	72	51	155	22%
Statistics	n.a.*	14	17	15	46**	7%
Personal development	0	6	6	11	23	3%
Other	2	15	3	17	37	5%
<b>Total</b>	<b>82</b>	<b>159</b>	<b>206</b>	<b>264</b>	<b>711</b>	<b>100%</b>

\*included in research category in 2012 report

\*\* likely to be slightly higher due to 2012 categorisation

## Evaluation

Peer Point evaluates their services by sending students an online feedback form after their session.

During the period November 2012 to May 2016, 711 students have received a feedback form. The form was completed by 165 students (23%). The evaluation has yielded the following conclusions:

- In 2012, approximately 75% of the respondents felt that the session had been helpful. This percentage has increased during the subsequent years, and has consistently been between 95% and 97% over the past three years. Reports from the past several years show that more than 70% of the respondents state that they made significant progress after contacting Peer Point.
- The majority of students state that they would recommend Peer Point to a friend (92% in 2012; 100% in 2015-2016).
- Furthermore, in the academic year 2015-2016 students were asked about their level of comfort during the session and how easy it was to talk to Peer Point students. Responses were very positive, with average scores of 4.70 and 4.74 respectively, on a scale of 1 to 5.
- Interestingly, negative feedback and experiences mainly concern situations in which the student had different expectations on the services offered by Peer Point (e.g. content-specific questions).
- The evaluations show that Peer Point is easy to find at the library, with rates of 95%, 98% and 100% over the past three years, respectively.

### Recommendations for Improvement

Based on the feedback form, frequent recommendations or suggestions for improvement include:

- Enhance the promotion of Peer Point among students and (teaching) staff;
- Increase the number of weekly office hours;
- Increase the number of peers with sufficient knowledge of statistical analysis;
- Collaborate with faculties' peer support initiatives.

Although statistical analysis lies not within the scope of Peer Point, the service receives a lot of requests for help on topics pertaining to statistics. Therefore, more attention should be paid to students who need assistance with such issues. This is of particular concern as there is currently no specific support service for statistics. At this time students are referred to the faculty for help with statistical analysis.

### Conclusion

In conclusion, Peer Point has grown and developed extensively since its foundation in 2011. Overall, Peer Point is positively evaluated and perceived as a helpful and necessary service. However, Peer Point is still relatively unknown among students. Therefore, further intensive promotion efforts are necessary. Furthermore, misconceptions or lack of familiarity with the service are widespread and may affect students' expectations of and experiences with Peer Point. Such issues require attention in order to improve student awareness and the quality of support.

### 5.2.3 The Writing Studio

The [Writing Studio](#)<sup>9</sup> was founded in 2012 as an initiative of the Leading in Learning programme. The Writing Studio was initially launched as a pilot programme among SBE students (*langstudeerders*). The main goal of the Writing Studio is to help UM students reflect on their thinking, searching and

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<sup>9</sup> More information: <http://library.maastrichtuniversity.nl/service/writing-studio/>

writing process. The studio is a collaborative effort between information specialists from the University Library and Language Centre teachers.

Students can turn to Ask Your Librarian (virtual helpdesk) and fill out details such as personal information, thesis topic, a short description of the problem (writing skills/language – finding sources, literature/source references), the language of the thesis and their native language.

Based on this information, the University Library will arrange a 45-60-minute intake within two working days. Depending on the nature of the request, the student will meet with an expert from either the University Library or the Language Centre. If necessary, a second meeting will be scheduled.

### Visibility and promotion

The Writing Studio is promoted in the following ways:

- Library staff refer to the portal during skills training sessions;
- University Library website, Language Centre website, Facebook and newsletters;
- Flyers;
- Peer Point promotes the Writing Studio at events and workshops.

### Overview of assistance provided

The Writing Studio receives requests from students from all faculties (see Figure 5.4). Generally, the studio receives two types of inquiries:

- 1) Language-related requests. These questions are answered by teachers of the Language Centre. Usually, non-native English speaking students ask questions on academic writing in English, structuring, etc. A couple of Dutch students have asked for help with their Dutch writing skills.
- 2) Literature-related requests. These questions are answered by information specialists from the University Library. Most questions are related to search strategies, database selection, data analysis and referencing.

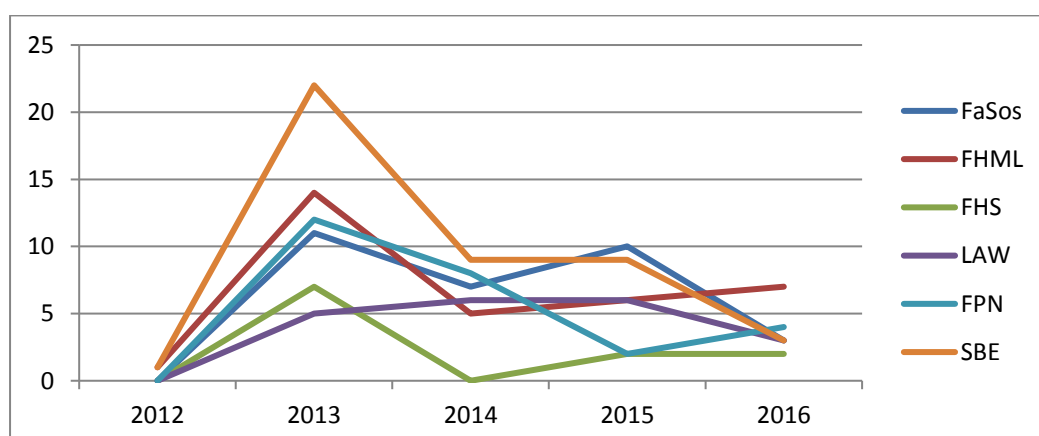


Figure 5.4 Writing Studio requests per faculty

### Evaluation

The Writing Studio was evaluated during the period of December 2016 to March 2017. Study advisers, thesis supervisors and library staff were interviewed in focus group meetings. Additionally, a survey among students was administered.

The number of inquiries at the Writing Studio are decreasing, this is due to the following reasons:

- Students usually contact Peer Point for writing-related issues.
- Students are mainly referred to the Writing Studio by Peer Point or by library staff.
- Study advisers and thesis supervisors are unfamiliar with the Writing Studio, and therefore don't refer students to this service.
- Students are unfamiliar with the service. Some students assume that the Writing Studio is a paid service, others have wrong expectations regarding the services on offer.

### **Recommendations for improvement**

Based on interviews with students, study advisers, thesis supervisors and library staff the main recommendation is to better promote the Writing Studio, among students and (teaching) staff.

### **Conclusion**

Students are mainly referred to the Writing Studio by Peer Point or by library staff. Typically, a student is referred to the Writing Studio for any questions which require a more professional (language teacher, information professional) level of support than Peer Point is able to offer. The University Library and the Language Centre should discuss the continuation of this service.

#### **5.2.4 Overall conclusion and lessons learned**

- Students often need additional support in developing their academic skills such as finding literature and data, referencing and academic writing. The University Library and the Language Centre provide such (online) services to cater to this need.
- The existence of such services remains relatively unknown among students and staff. The promotion of these services should be intensified. For instance, course books could contain an information page on additional skills training services.
- Students and staff confirm the need for these services and generally evaluate Thesis SupportAll, Peer Point and the Writing Studio positively.
- Training on specific research methods and statistical analysis typically occur at the faculties. Additional services for currently not available through the library.
- It is recommended to stimulate the faculties' involvement with the services.
- Collaborative efforts between the University Library, Language Centre and faculties will result in the creation of more content and better promotion of the services.
- The Thesis SupportAll portal could be improved by adding more (up-to-date) content, interactivity and making the overall design more attractive.

### **5.3 Wiki**

Before discussing the ins and outs of a wiki, it is useful to define its concept first. We will use the definition of Cunningham and Leuf (2001), a wiki is: "a freely expandable collection of interlinked Web pages, a hypertext system for storing and modifying information - a database where each page is easily editable by any user with a forms-capable Web browser client" (p. 14). In this section we elaborate on the development and maintenance of a wiki, more specifically: the features of a wiki



(5.3.1), building content (5.3.2), and quality assurance (5.3.3). Finally, a possible design of a research skills wiki is provided (5.3.4).

### 5.3.1 Features of a wiki

The definition of Cunningham and Leuf (2001) implies that there are several aspects related to wikis. First, there is the content aspect, i.e. storing and modifying information. A wiki is comprised of a variety of linked topics. A wide range of different types of content can be published on a wiki page such as text, pictures, formulas, references, links to other wiki pages, and links to video's. Typically, a wiki does not contain a table of contents or an overview of all the topics.<sup>10</sup> Instead, a search application (engine) facilitates the user in finding topics. Second, the content can be edited by several users, i.e. a broad range of users can edit the (dynamic) content. Finally, the technical aspect concerns the software that is used to create and maintain the wiki. For instance, is it necessary to have an own server to store the wiki, or is the data stored on the provider's servers?

There are several advantages to working with a wiki:<sup>11</sup>

1. Anyone can edit the content, i.e. it allows for necessary additions from authors with different backgrounds.
2. Editing a wiki page requires no complicated training as the system is user friendly and it is easy to learn the basics.
3. Wikis are instantaneous; there is no need to wait for a publisher to create a new edition, or to ask a webmaster to make changes.
4. People located at different places can work on the same document.
5. The wiki software keeps track of every edit made and it's a simple process to revert to a previous version of an article.
6. The wiki has no predetermined structure - consequently it is a flexible tool which can be used for a wide range of applications. The structure of wiki pages emerges over time, and this structure is based on consensus among the wiki's users. This is radically different from traditionally designed webpages, in which the structure of pages is imposed on users.

Disadvantages:

1. Anyone can edit the wiki which may be problematic in some cases (e.g. use of confidential documents). It is, however, possible to restrict user access.
2. Risk of editing wars, spam and vandalism if not managed properly. However, there are easy ways to restore a page. Additionally, the user must be logged on to edit pages, which reduces the risk of vandalism by automated spam bots.
3. The flexibility of a wiki's structure may result in disorganisation of information. As the wiki expands, the community plans and administers the structure collaboratively. This risk can be diminished by working with templates and establishing an editorial board.

A wiki can contribute to the dissemination and sharing of knowledge on any topic. Creating a UM wiki on research skills could be beneficial. However, the risks described above should be minimised.

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<sup>10</sup> See Annex V for an example of a wiki with a table of content.

<sup>11</sup> [http://wikieducator.org/Wikieducator\\_tutorial/What\\_is\\_a\\_wiki/Advantages\\_and\\_disadvantages](http://wikieducator.org/Wikieducator_tutorial/What_is_a_wiki/Advantages_and_disadvantages)

Additionally, several technical aspects should be considered before reaching the decision to create a wiki. Table 5.2 provides an overview of important considerations.

**Table 5.2 Selection criteria for a wiki**

Functionality	System	Administrative
<ul style="list-style-type: none"> <li>• Editing capabilities</li> <li>• Common features: preview, change summary, page history</li> <li>• Special features: categories, Unicode support, search engine</li> <li>• Entering links</li> <li>• Syntax features, HTML tags, math formulas, footnotes, FAQ tags</li> </ul>	<ul style="list-style-type: none"> <li>• Hosting features, storage quota, number of users, domain</li> <li>• Security/anti-spam</li> <li>• Search engine</li> <li>• Are there differences between the free and professional versions?</li> </ul>	<ul style="list-style-type: none"> <li>• Statistics</li> <li>• Support</li> <li>• Costs</li> <li>• Who can be granted access to the wiki?</li> <li>• Different levels or security</li> </ul>

See also Schwartz, Clark & Rudolph (2004) or <http://www.wikimatrix.org>

Generally, each wiki hosting platform offers the same the editing capabilities. Costs are an important consideration. It is possible to create a wiki for free with platforms such as PBWORKS. Free wikis, however, are limited in terms of the number of users and capacity.

A wiki can have different functions such as note keeping, facilitating discussions, providing a space for documentation, opportunity for follow-up, references and links to resources, archiving and inventory (Cunningham & Leuf, 2001). Wikis have several applications in education:

1. Platforms such as ELeUM/ Blackboard, used for announcements, providing course books and course content, publishing schedules and assignments.
2. Creating a wiki as a course assignment (group work).
3. As an information source for students. The wiki serves as a collective repository of expertise.

The aim of the proposed *Student Research Support Platform (SRSP)* is to provide UM students with a research skills wiki comprised of content, documents, references and links to resources.

The SRSP will deviate from the wiki concept as editing will be restricted. Due to the educational aims of the platform, only teaching staff (from different disciplines), Peer Point students and University Library staff are permitted to create and edit content. It could be considered to dedicate certain pages to tips and tricks and to let students contribute to this topic as well.

### 5.3.2 Building Content

Generally, a wiki covers a variety of topics. In the case of the SRSP, each topic is related to research skills. A wiki is rather unstructured; it presents a collection of interlinked webpages. Usually, wikis have a front page, which is the landing page for entering the wiki (Cunningham & Leuf, 2001, p. 127).

A front page may contain:

- The scope of the wiki
- A first-level topic page
- A Search page, explaining the search capabilities.
- A short explanation of the Wiki in general
- Tips and templates for editing

- Some pointers on wiki etiquette
- A legal page (copy rights, disclaimer, fair use, etc.)

Several rules need to be followed when adding topic pages to the wiki:

- Before adding a topic, take a look at the already available content. Avoid providing redundant information. Consider adding links between your page and other topic pages.
- Create new content with the template offered by the wiki-administrator. This will ensure uniformity.
- Think about the design of the topic. If your topic page is too long, consider splitting the topic into mini topics and create a short wiki page for each topic.
- Provide each page with tags.

A wiki is edited with a software application which allows users to create and fill the pages with relevant input, such as: text, formulas, figures, tables, and links to other pages. Figure 5.5 shows an example of a wiki editing tool.

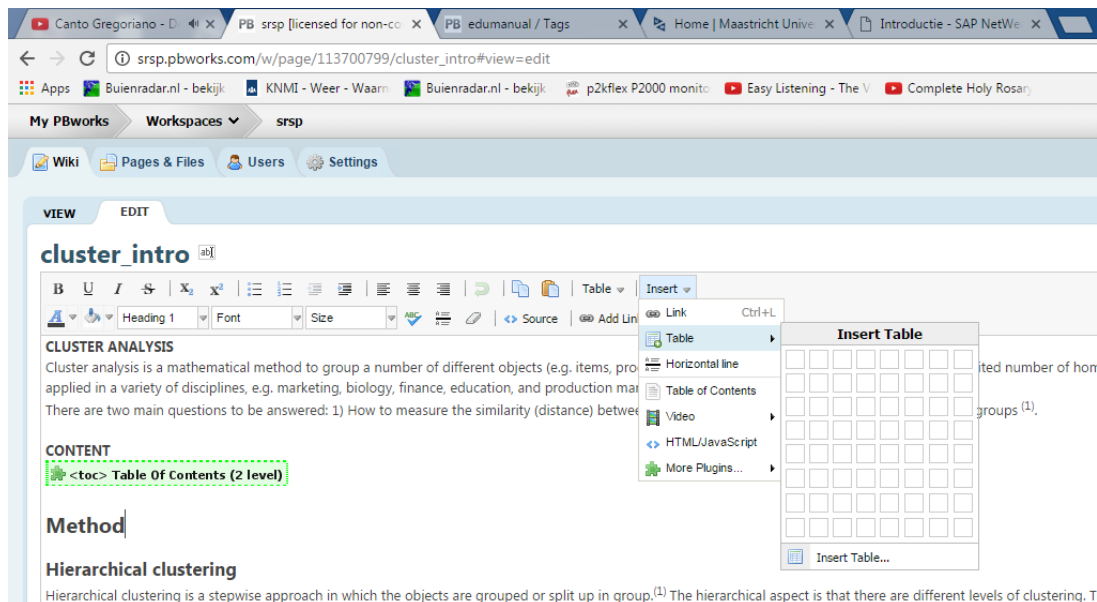


Figure 5.5 Example of the wiki editing tool and the editing toolbar (PBworks)

Editing tool requirements:

- User-friendly design.
- Tool to create a table of content with different levels.
- Must offer plugins to upload a variety of content such as texts, pictures, files and formulas.

Several choices must be made regarding the content. The wiki is not meant as a replacement of a course, but can be based on course material (consider copyrights). Furthermore, the content is usually a condensed version of more elaborate material. The wiki's content should provide the basics which are supplied with references and links to books and articles. As many students prefer to find their sources online, it is recommended to refer to digital content as much as possible.

### 5.3.3 Quality assurance

The administrator is responsible for the wiki. Additionally, the establishment of an editorial board comprised of representatives from the faculties and library should be considered. The editorial board takes is responsible for the following activities and content:

- The Wiki's frontpage
- The quality of the wiki
- Inviting staff to contribute to the wiki
- Providing editors access to the wiki
- Training
- Creating and consistently using a template (language, style, etc.).
- Statistics and loose ends.
- Resolving conflicts
- Creating a FAQ

### 5.3.4 Example: creating the topic pages

In this section, we briefly discuss the steps to create a topics page and provide an elaborate example.

Steps:

1. Submit a request to edit or create content for the wiki
2. Take a look at the already available content. Avoid providing redundant information.
3. Think about topic design, e.g. how many pages does it cover?
4. For each page, use the template as provided by the administrator.

**Table 5.3 Example of the structure of a wiki page**

<b>Page name</b>	
<b>Topic</b>	Topic
<b>Description</b>	
<b>Content</b>	Content
	Sub1
	Sub2
	Sub3
	References
	Other Sources
	Exemplary article
<b>Sub1</b>	
<b>Sub2</b>	
<b>Sub3</b>	
<b>References</b>	
<b>Other sources</b>	
<b>Tags</b>	Target group, level, topic
<b>FAQ</b>	

5. If your content covers more than one page, split your topic into mini topics and pages.

Figure 5.6 provides an example of linked topics. The wiki page “Two step in SPSS” can be linked to the topic “Cluster Two Step”, or to the “SPSS” topic.

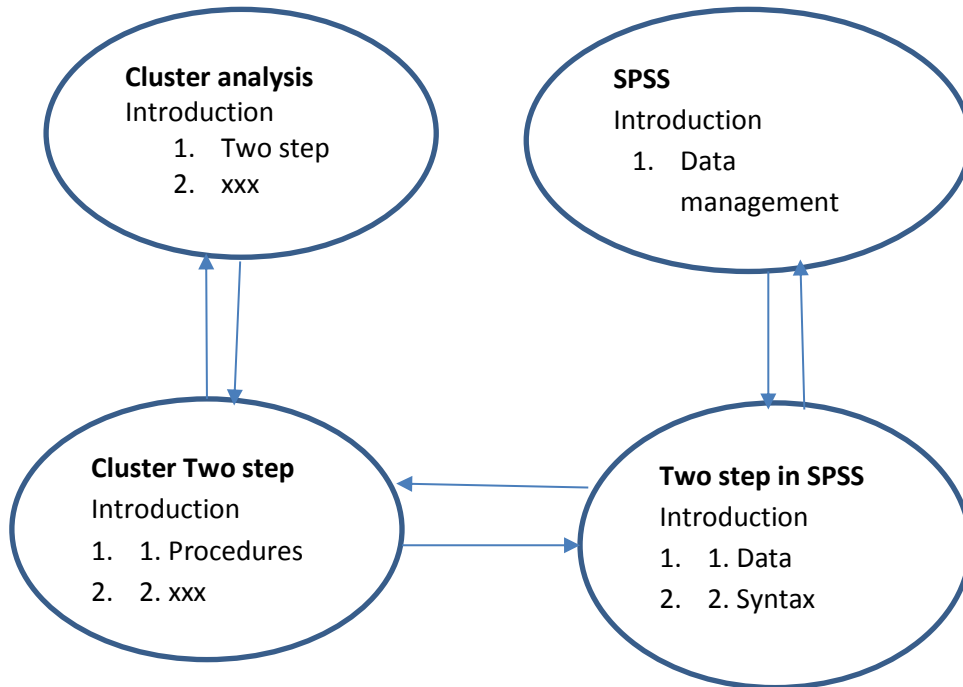


Figure 5.6 Topics and links

If you would like to create a new page, click on the workspace button 'new page'. Figure 5.7 depicts the editing tool for setting up a new page (test). Several useful editing features are marked in Figure 5.7:

- 1: Edit/View
- 2: Save your changes
- 3: Insert table of content
- 4: Edit tags
- 5: Insert images, documents and other files

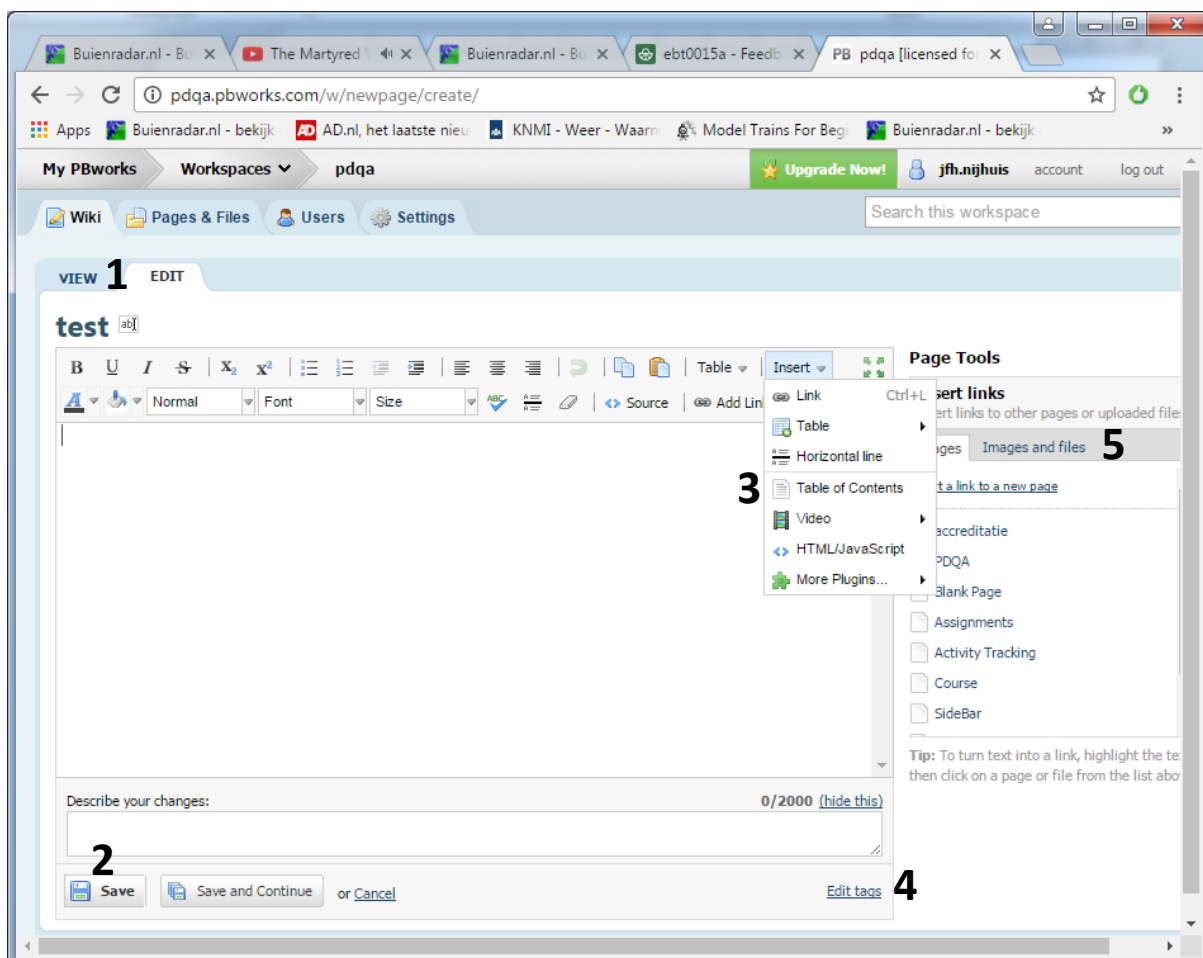


Figure 5.7 Starting your topic page

## References

Cunningham, W., & Leuf, B. (2001). *The Wiki Way*. In *Quick Collaboration on the Web*. Addison-Wesley Boston.

Schwartz, L., Clark, S., Cossarin, M., & Rudolph, J. (2004). Educational wikis: Features and selection criteria. *International Review of Research in Open and Distance Learning*, 5(1), n1.