

# How adult students in Information Studies use a scoring rubric for the development of their information literacy skills

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## Abstract

The purpose of this article is to expand on a previous study on the development of a scoring rubric for information literacy<sup>1</sup>. The present paper examines how students at the Department of Information Services and Information Management, The Hague University, use the scoring rubric for their school work and/or in their regular jobs and social life. The research presented here focuses on a group of adult students who follow a part time evening variant of the Bachelor curriculum. The methods employed in this study consisted of an online survey to select students who had used the scoring rubric at least once after the workshop in which it was introduced. Following on from this, a focus group with respondents who had answered positively to the invitation at the end of the survey was organised and chaired by a neutral moderator. Samples that could be used in this research were very small. The findings may therefore not be generalized to all other groups of students. However, the results appear to be of relevance to the IL community. The students who participated in the focus group reported that they used it for self-assessment throughout the course, in subsequent courses, and to become more critical of their own writings and those of other people. The research also makes clear that adult students appreciate the feedback generated by completing the scoring rubric form but that this is not a substitute for the face-to-face feedback they receive from their teachers.

## Keywords

Information Literacy; Scoring Rubrics; Student use; Higher Education

## Introduction

In a previous paper published in the Journal of Information Literacy I reported on the development and testing of a scoring rubric for performance assessment of information literacy.<sup>2</sup> A scoring rubric can be considered as a set of criteria for rating important dimensions of performance, as well as the standards of attainment for those criteria on different levels.<sup>3</sup> The Scoring Rubric for Information Literacy used descriptions of information literacy performance on two levels: professional and insufficient. The full text of the rubric is also attached as appendix A in the present paper.

The evaluation of the scoring rubric described in the previous article focused on the experiences of the researcher and teachers from two different universities in the Netherlands. It emphasised the usefulness of the rubric for educational practice and for fostering agreement between different markers grading the same set of students' assignments. One of the limitations of the previous research highlighted the need to investigate "the extent to which students appreciate the instrument for instruction, feedback and self assessment"<sup>4</sup> and this paper focuses on the impact of using the rubric from the students' viewpoint.

The aim of this follow up research was to find out how students actually use the Scoring Rubric for Information Literacy for their studies or for activities in their professional lives, such as their regular jobs or voluntary work. The research methods used to gather the data were an online survey and a focus group. Students who participated in the survey were supposed to have used the scoring rubric at least once during the workshop when it was introduced. The survey made it possible to receive some answers quickly from the students who participated in the Digital Library course of which the workshop was a part of. The focus group meeting was used to gather more in-depth answers from students who had indicated in the survey that they were willing to participate in a follow up interview. The main goal of it was to find out *how* the students actually used the scoring rubric.

## Literature review

The literature that informed this study covered the use of scoring rubrics by students in Higher Education. Reddy and Andrade published a literature review of empirical research on rubric use in this sector.<sup>5</sup> In the 20 journal articles they reviewed, they differentiate between the student perceptions of rubric use from the perceptions of their instructors. In addition, they describe the effects of rubric use on academic performance and the use of rubrics by the school management for the evaluation of instructions and curricula.

According to them students value the use of scoring rubrics because these tools:

- clarify the targets for their work
- allow them to regulate their progress
- make grades or marks transparent and fair.<sup>6</sup>

Although the last point could indeed explain the students' appreciation of the use of rubrics, it is in fact more related to the way in which instructors use scoring rubrics than the way students use them themselves. The influence of scoring rubrics on the transparency and fairness of grading from the teacher's viewpoint, is discussed in my previous paper.<sup>7</sup> In the context of students' use of rubrics, it is often remarked that transparency of the assessment criteria helps students to make excellence attainable.<sup>8</sup> The students' interpretation of rubrics as offering transparency and fairness of the grading is related to the clarification of the targets for their work. In other words, rubrics help the students to understand what they are expected to do.

In their articles on scoring rubrics for information literacy Scharf et al.<sup>9</sup> and Oakleaf<sup>10</sup> also refer to the function of rubrics to clarify the assessment criteria. They argue that sharing information with the students about the assessment variables and discussing the use of these variables at the start of an assignment allow the students to understand the expectations of their instructors. Similarly, in the studies of Bolton<sup>11</sup> and Andrade & Du<sup>12</sup> students reported that they felt less uncertain and anxious about completing the assignments when a scoring rubric informed them beforehand about the requirements for assessment tasks. Bolton argues that particularly for adult students scoring rubrics have the function of clarifying the importance of the learning objectives in an assignment.<sup>13</sup> This is, in his opinion, important because adult students, more than younger students, are highly motivated learners and want to know why something is important to learn. Rubrics help them to identify the relevance and the usefulness of the subjects that are being taught.

Familiarity with the requirements for an assignment or a study task not only makes the students more self-confident and more involved with the study tasks, but also gives them the opportunity to plan the amount of effort that they need to complete an assignment.<sup>14</sup> From the fourteen undergraduate students Andrade and Du examined in focus groups, most students answered that they indeed use rubrics to plan their approach to the assignments. However, Andrade and Du also remark that they suspect that for this purpose some students only used the descriptions in the rubrics of excellent work and not that of poor work, although the latter could also help students to avoid common pitfalls.<sup>15</sup>

Bolton reported that students also use scoring rubrics to evaluate their own work before turning in an assessment.<sup>16</sup> This strategy can be characterised as a kind of informal 'self assessment'. He reports that

they also used this method to improve their performance in subsequent assignments.<sup>17</sup> According to Andrade & Du the rubrics-based self-assessment practice is used by students to monitor the progress of their studies through feedback from their peers, teachers and teaching assistants on the drafts of the papers.<sup>18</sup> Providing feedback is one of the main functions of scoring rubrics.<sup>19</sup> Students use feedback not only to improve their weaknesses but also to receive confirmation on what they did right, so they know what they should do the next time.<sup>20</sup>

The literature that is reviewed above indicates that scoring rubrics can be used by students for different purposes. Although the papers focus mostly on the students' appreciations of scoring rubrics in HE as a whole, some conclusions can be derived about the way in which students actually use them:

- a. rubrics make the expectations of their teachers clearer, which reduces the students' anxiety about completing their assignments and helps them to attain excellence
- b. rubrics are used by students to plan their activities for an assignment
- c. students use scoring rubrics to reflect on the validity of the learning content, and this helps them appreciate the usefulness of learning objectives and subjects taught
- d. rubrics help students to self assess the quality of their work before submitting it for the grading process
- e. the feedback from the graders is used by students to identify the tasks that they have mastered (positive feedback which leads to the following conclusion: 'It seems that I did this well') and the sub tasks that they need to improve.
- f. scoring rubrics are used by students to get informal feedback from their peers or their teaching assistants
- g. students use scoring rubrics to monitor their own progress over time on a particular type of task.

This summary of rubric use by students was employed as a starting point for the discussion in the focus group that is described later in this paper.

## Online survey

The survey gathered data from a small group of students of the Department of Information Services and Information Management at The Hague University. The department organises courses for the curriculum at Bachelor degree in a full-time day variant and a part-time evening variant. The survey was sent to 21 students, 11 from the part-time evening variant and 10 from the full-time day variant. The number of students invited to participate in the survey might be considered rather small, but this is due to the following factors. First the size of the cohorts of students of the Department of Information Services and Information Management has been limited to around 30 full-time and part-time students each year. And secondly as the Digital Library course in which the scoring rubric is used runs rather late in the curriculum (in the 2<sup>nd</sup> or 3<sup>rd</sup> year of the bachelor phase) some students had already dropped out of the course by this stage.

All 21 students who were invited for the survey had participated in the Digital Library course where they used the scoring rubric for the first time in a workshop to assess an example essay written by one of their classmates while the final grading of each student's essay with the scoring rubric was done by their teacher. The survey was sent to all students who had completed the course and who had participated in the final assessments (irrespective of whether they passed or failed). It was disseminated to the students four months after the workshop had run. 4 of the 10 full-time students who received the invitation for the survey and 6 of the 11 part-time students completed it. The ages of the full-time students who responded varied from 21 to 23, respondents from the part-time variant were aged between 31 and 48. From the total of 10 respondents only 1 student did not participate in the workshop. However, this student from the full-time group answered that she used the scoring rubric at a later time.

In the Digital Library course when the scoring rubric was introduced the students have been encouraged to use the rubric as a self or peer assessment tool afterwards and the survey targeted those students who had independently used the scoring rubric at least once. 2 of the 4 respondents from the full-time group answered that they retrieved the scoring rubric after the workshop. One of them was the student who did not

participate in the workshop itself. From the group of part-time students 5 of 6 respondents answered that they used the scoring rubric at a later time. Table 1 gives a summary of the answers on the main question of the survey, as well for the full-time students as for the part-time students.

*Table 1: Answers on the main survey question by full-time students and part-time students*

Which is the variant of the curriculum you are subscribed in?	After the workshop when we used the Scoring Rubric ...		Total
	I retrieved it at least once to use it again	I didn't use it again	
Full-time day variant	2	2	4
Part-time evening variant	5	1	6

None of the respondents from the full-time group was willing to participate in a follow up interview. The five part-time students who responded that they used the scoring rubric at a later time were all willing to participate in a follow up interview. The survey questions and all data generated by it are presented as appendix B of this paper.

Although the number of respondents is rather small, from the fact that five part-time students were willing to participate and none of the full-time group, might be deduced that part-time students were more motivated to use the scoring rubric. However, their willingness to spend some free time to participate in an interview may also be explained by the fact that adult students are generally more intrinsically motivated in their study than younger students as proposed by Bolton in an earlier section of this paper.<sup>21</sup>

## Focus group

A 'focus group' is defined by Radcliff et al. as a "face-to-face interview with a group of six to twelve people that focuses on a single subject or topic".<sup>22</sup> It is considered as an appropriate research instrument when the research needs to examine in-depth answers from a small group of people with a common interest to exchange their views.<sup>23</sup> In the case of the research that is described in this paper the students who indicated in the survey that they were willing to participate in the follow up interview were considered as such a group with a common interest because they were all adult students from the part-time evening course variant, which means that they are slightly older than full-time students, self-financed and combine their study with a full-time job. Although the number of five students was rather small to create a useful discussion - as mentioned before Radcliff et al. are the opinion that a focus group should be six to twelve people and Shoaf mentions five participants as a minimum<sup>24</sup> - it was decided to take the risk and to change the organisation of individual interviews in the organisation of *one* focus group meeting. This was not only time efficient but had also the benefit that it stimulated the students to exchange their opinions.

In this section of the paper and the next one, the results of the focus group meeting will be described with examples of the students' quotes. The names of the students who participated have been changed for reasons of confidentiality.

The participants were three males aged 31, 36 and 39 and two females aged 32 and 34. The researcher decided not to do the moderation himself to avoid any unwanted influence on the process and the results of the discussion. Instead he attended the meeting as an observer and to take notes. To facilitate the meeting a neutral moderator, an Associate Professor from a Research Group of The Hague University, was invited to chair the discussion as he had knowledge of information literacy issues but was not concerned with the development of the scoring rubric.

The focus group was organised in two 'rounds'. Appendix C gives the questions that were used. The first round of the focus group meeting was about the actual use of the scoring rubric by the students. Answers and comments of the participating students were grouped in four themes which are discussed here below.

### *Theme 1: Self assessment of academic work*

All 5 students indicated that they had used the scoring rubric to evaluate their own assessment paper in the 'Digital Library' course before they submitted it for the final grading. In Erik's case the rubric even substituted the teacher's feedback: "I did not get feedback on my drafts because I was too late when I sent these to my teacher. So I used the scoring rubric to give myself feedback, to see whether my document would meet the requirements. In this way I revised my paper more than once and the moment I thought 'This is quite good' I submitted it. But since that time I haven't used the scoring rubric any more because I haven't participated in any new course."

Other students (Susanne, Astrid, William) used it not only in the 'Digital Library' course but also in later courses. Susanne: "In the Digital Library course I used it as a checklist. And it apparently has helped me because I got a relatively high grading. I think that this was also because I constantly evaluated myself at these points, at least at the reference list and that kind of things.... In later courses I sometimes did not use it physically but more with the criteria 'in my mind'." This last remark by Susanne can be regarded as an indication that she had integrated the evaluative process in her practice which helped her to become an independent and active learner.

William claimed that working with the rubric helped him to improve his writings but he was also of the opinion that the seven criteria operate at very different levels: "Some criteria can be used as a simple checklist, you know, but some other criteria refer much more to the quality of the content of your paper [...] for instance criteria 2 [Reference list] and 4 [In text citations] are not in proportion with criterion 3 [Quality of primary sources] and certainly not with criteria 1 [Orientation; Clear research question] and 5 [Analysis and synthesis]. This is also expressed in the grading column with the weights of 10 and 20 points but that might easily be overseen."

Another addition was made by William when he remarked that... "particularly for criteria 1 and 5 (the more cognitive ones) you really need specific knowledge to be able to assess your own work. If you don't have enough knowledge about a subject it is hard to assess the quality of your research question or the degree of analysis." This is an interesting point because it makes clear that, at least in Williams opinion, information literacy competence cannot be seen apart from domain expertise.

### *Theme 2: Transfer of the rubric's criteria to the context of daily work*

Students not only use the rubric for assessment of their academic work but also in their regular jobs, particularly when they work in an office or knowledge organisation. Except for one student who works as a ticket collector in the public transport sector and who does not come across a lot of information processing work in his job, the students indicated that they also have the criteria of the scoring rubric for Information Literacy in mind when they write a work related paper. Sander explains that "Such a rubric is a convenient tool to reach the minimum critical value for the report that you are writing. You are forced to look at it and there's the added value." He indicated that he is used to evaluating his papers with even more extensive scoring rubrics provided in his work environment. Unfortunately this point cannot be elaborated further as this student was prevented by his employer to give an example of how rubrics are used at work.

Astrid also uses the criteria in her leisure activities as the manager of a website. "I was accustomed to using pictures from other sites on the internet without references but now I pay more attention to referring to the websites from where I get them. But it is funny that since I've done this [refer to the sources of the pictures], I've been twice requested to remove a picture from the site!"

A point that needs to be stressed here is that all of the students agreed that the scoring rubric is a good tool to develop a critical attitude to one's own writings associated as well with academic school work as with their professional work environments. Astrid's example of the maintenance of a website however, makes also clear that this critical attitude makes it sometimes harder to carry out the work.

### *Theme 3: Critical reflection on papers and reports from other people (for instance work colleagues)*

Students have also become more critical of other people's work since their own work has been assessed (either by their teacher or by themselves) with the scoring rubric. The emphasis in the rubric on how statements should be supported with authentic, relevant and reliable sources (criteria 2, 3 and 4) helped

them to develop a scholarly attitude towards someone else's work. For example Astrid claimed that it was her experience with the scoring rubric that made her a critical reader. "Yes, I am much more attentive now on someone else's claims. I often ask myself: Can they sustain it and where is the source of their arguments?" Also William remarked that a business plan for his organisation was full of presumptions that were hard to prove. "But" he said "I doubt whether it was primarily my experience with the scoring rubric that made me more critical or more in general my experiences of recent years as a student in Higher Education."

#### *Theme 4: The development of a critical attitude to the way in which clients formulate a project or an information request*

This was the most surprising outcome of the focus group. Adult students of the Department of Information Services and Information Management often receive project assignments from a client, as well in their work environment as in their school setting. School projects for them are sometimes real life, other times a teacher has the role of their client.

During the workshop when the scoring rubric was introduced and the students used it for the first time to assess a paper and to get feedback on their own essay from their teacher, they experienced how important it is to look for the questions that go beyond the assessment task and to reformulate the assignment. All students now recognised that this process should be a part of the orientation stage (criterion 1). But for Susanne for instance, this was really new: "Until then I had the opinion that you have merely to read the client's question in depth. Since that workshop I understand that you have to make an interpretation of the customer's question. This is not really how I use the rubric but it did give me a completely new view of how an intake process of a project should go." Other students emphasised that to be critical towards your customer's requests, you not only need knowledge of the subject but also the right attitude, the communication skills and the guts to negotiate the query. William expressed that in a nice way: "Who dares to say to his boss that he sees it all wrong? To my colleagues I dare but to my CEO?" Nevertheless, the students affirmed that the use of the scoring had convinced them of the importance of reformulation of an assignment.

## **Usefulness and limitations of the rubric according to the students**

The second part of the focus group provided insights into the advantages and the limitations of the rubric according to the students' experiences which are presented here under five themes (5-9).

#### *Theme 5: Teacher's feedback*

All the five students recognised the usefulness of the Scoring Rubric for Information Literacy for getting feedback from their teachers. Erik however remarked that a completed rubric form cannot be a substitute for face-to-face feedback by their teacher. He would appreciate an explanation of the checkmarks and additional notes by the grader/teacher him/herself: "I think that feedback is a good application of it but I still expect that the completed feedback forms are discussed afterwards." This was remarkable because it was also Erik who noticed for the first time that he used the scoring rubric for self assessment because he was too late with sending his drafts. The experience that he could fulfil the assignment without the teacher's feedback did evidently not convince him that the teacher's verbal feedback is not necessary. All the five students agreed that feedback with the scoring rubric is especially useful because of the distinction of the seven criteria and because "you get it in writing and you can look it up afterwards" (Astrid). However, they also were the opinion that it should be additional to the face-to-face feedback which they normally receive in their classes.

#### *Theme 6: Peer assessment*

For the researcher and author of this paper it was remarkable that the students indicated that they did not use the scoring rubric to assess each other's work. According to the students this was because the opportunity to use the rubric for such peer assessment did not arise in the Digital Library course or in any other course. They admitted that they could have created the opportunity themselves but that they did not because of time constraints. Otherwise, most students indicated that feedback from their peers could be as

useful for them as feedback from their teacher. William: “The rubric is really useful to get feedback and it doesn’t matter a lot whether this is provided by self assessment, peer assessment or by the teacher”. Erik agreed with him but he added the comment that the peer assessor himself should be an information literate person as well.

Also this conclusion by the students was remarkable for the researcher. He had expected that feedback by their teacher would be more appreciated by the students than feedback by their peers, because the teacher is also the person who finally grades their assignments. The answers of the students on the theme peer assessment might be another illustration of the rather high learning motivation of adult students as proposed by Bolton.<sup>25</sup>

#### *Theme 7: The rubric is not a planning tool*

The literature review presented in this paper suggests that rubrics can be used by students to plan their activities for an assignment. All students agreed that the Scoring Rubric for Information Literacy is not an appropriate tool for this, because it aims to establish the qualities of the finished product, i.e. the assessed piece of work, rather than the process by which the piece of work should be produced. This was also the reason that they doubted the usefulness of the rubric as an instructional tool. This view is illustrated by William “As a scoring rubric it works well. But it might leave the user with the question: How should I do this?”

#### *Theme 8: Not the best tool to convince people of the importance of IL*

The argument that scoring rubrics could clarify the usefulness and the relevance of the learning content, the argument that according to Bolton<sup>26</sup> is especially true for adult students, was not recognised by the students in the focus group. In the discussion they admitted that the Scoring Rubric for Information Literacy helped them to recognise the importance of correct information behaviour (for instance correctly citing resources and doing in depth research to solve a problem in their work environment) but they doubted that this should be an aim of this rubric. Sander summarised their opinion as follows: “What you suggest is that the scoring rubric is bridging the gap between school and professional practice. The rubric can be used for this but we are not convinced that it is the best tool for that goal.”

#### *Theme 9: Monitoring progress in IL skills*

While discussing theme 1 (‘self assessment of academic work’) the students remarked that they used the scoring rubric not only in the Digital Library course but also in later courses. However, remarkable was that they did not do this to measure their progress in IL skills but mainly to get a high grade for the assignment they were working on at that moment. At the end of the focus group the students admitted that the Scoring Rubric for Information Literacy could be used to monitor their progress in IL skills but none of the students recognised this as useful. Sander, on the contrary, had the view “that you normally know your own weaknesses but it has no sense to make this explicit.” This was at least a bit contrary to former suggestions in this paper that adult students are highly motivated learners.

From the discussion on this last theme the researcher deduced that it would be wise to introduce the Scoring Rubric of Information Literacy rather early in the curriculum and to pay explicit attention to it at different stages.

## **Conclusions and discussion**

The focus group described in the previous two sections was organised with five adult students. Due to this small amount of the sample, the findings of this paper may not be generalized to all other groups of students. However, the results appear to be of relevance to the IL community and other institutions could benefit from them.

The students who participated in the focus group reported that they used the scoring rubric for self-assessment throughout the course in which it was introduced. The scoring rubric helped them to evaluate

their own assessment paper before they submitted it for the final grading. Four of them reported that they also had used the rubric for their assessments in subsequent courses but then more with the criteria 'in mind'. This is an indication that those students had integrated the evaluative process in their academic practice.

The same four of five students indicated that they also have the criteria in mind when they write a work related paper since their own academic work had been assessed with the scoring rubric. Those students also reported that they have become more critical of other people's work (for instance that of work colleagues). This transferability of the rubric from academic to work-related situations was one of the most informative outcomes for the researcher who developed the rubric.

Although the rubric was only used once in a workshop, all the students agreed that a completed rubric form would be a good tool for feedback by their teacher, particularly because they get their feedback then in writing and they can look it up afterwards. However, they also were the opinion that it is not a substitute for the face-to-face feedback they normally receive from their teachers.

According to all participants in the focus group the rubric has one important limitation: it only describes what the desired levels of information literacy look like (and at the same time the behaviour that is not desired) but not how someone could reach the desired levels. This is recognised by the developer of the rubric but the decision to focus the rubric on the qualities of the finished student products has been motivated in a previous paper.<sup>27</sup>

## **Impact for educational practice**

The workshop in which the rubric was used, was run towards the end of the degree (in practice this means that part-time students complete the workshop at the end of the second year of their studies). During the focus group's discussion the students recommended that the workshop should be introduced earlier in the curriculum. Whilst the students' recommendations did not go into details about the changes in terms of timing or the ways the rubric's workshop should be delivered, it is important to take note of their remark because following their advice could be a way to encourage students to monitor their progress in information problem solving.

# Appendix A

Scoring rubric for Information Literacy

Name teacher / grader:

Name/ID-No. student:

student product

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
1	Orientation	<input type="checkbox"/> The student product makes clear that the student did a good orientation on the topic and that he/she formulated his/her own focus on the topic or research question. This is also expressed by the fact that the student formulated one or more good research questions.	<input type="checkbox"/> The student product makes clear that the student used the question as it was originally formulated in the assignment or student task. The student him/herself did not further explore the question as such. An example of this behaviour is that the student did not define the core key terms and that these terms are supposed to be clear while they are at least multi interpretable.	Grade 1-20=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
2	Reference list	<input type="checkbox"/> The student product has a reference list that is complete and the citation style is used correctly. With the reference list it is easy to identify the documents that the student used.  Remark: the last point is more important than a correct bibliographic description in accordance with a standard citation style. However, for the score 'very good' the citation style must also be used correctly.	<input type="checkbox"/> There is no reference list in the student product and / or <input type="checkbox"/> The reference list is not complete (documents that are cited in the text are not listed in the reference list) or <input type="checkbox"/> Important bibliographic data (title, author, year of publication) are missing.  An example that often recurs in educational practice: for internet resources only the URL is mentioned.	Grade 1-10=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
3	Quality of the primary sources (books, journal articles, websites etc.)	<input type="checkbox"/> The reference list of the student product makes clear that the student has used relevant, reliable (preferably authentic) and up-to- date information sources that discuss the topic or the question from different points of view.	<input type="checkbox"/> The information sources the student has used are insignificant, outdated or not relevant enough. An example of 'insignificance' is that the student only used Internet-sites as an information source. And / or ... <input type="checkbox"/> The information sources the student used are one-sided (too much from one point of view). The student has, for instance, only used government information(.gov-sites) or publications from one particular author.	Grade 1-20=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

**Scoring rubric for Information Literacy**

**Name teacher / grader:**

**Name/ID-No. student:**

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
4	In text-citations	<input type="checkbox"/> In the text of the product it is made clear what information sources the student has used. In the case of a digital student product this is also true for images and audiovisual information.	<input type="checkbox"/> The student has used someone else's work (text fragments, images, audiovisuals) in his / her own product without reference to the original source. Even if this was done unintentionally, strictly speaking this is plagiarism.	Grade 1-10=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
5	Creation of new knowledge out of relevant information	<input type="checkbox"/> The student product makes clear that the student analyzed information from different resources and that – based on this analysis – he / she formulated new insights, hypotheses or applications. Scope note: practice shows that students succeed in analysing and comparing several information sources, but are not capable of synthesizing the retrieved data into a new insight, hypothesis or application. If so, this criterion should be graded as "sufficient" or "poor".	In the student product the student <ul style="list-style-type: none"> <li><input type="checkbox"/> did not reproduce the content of the retrieved information correctly or clearly and / or</li> <li><input type="checkbox"/> paid no attention whatsoever to the analysis of the information sources found and / or</li> <li><input type="checkbox"/> used only one information source without discussing the relevance or the reliability of the content, although there is reason for doubt.</li> </ul>	Grade 1-20=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

**Scoring rubric for Information Literacy**

**Search Strategy**

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
6	Search terms / keywords	<input type="checkbox"/> The student used search terms that are relevant for the topic or the research question. He / she used relevant synonyms, search terms in English and from the professional jargon.	<input type="checkbox"/> The student used search terms that are too general (non professional) and / or <input type="checkbox"/> the student did not use relevant synonyms, associated terms or search terms in English.	Grade 1-10=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

<i>Criterion</i>		<i>Professional behaviour</i>	<i>Insufficient behaviour</i>				
7	Use of secondary sources	<input type="checkbox"/> The student used a variety of secondary sources (search engines, books for tracking citations, scholarly journals, databases, social networks). If necessary he / she used an interlibrary loan to obtain the materials needed.	<input type="checkbox"/> The student only used information sources that are easily accessible. For instance: he / she only used <ul style="list-style-type: none"> <li>• The "quick search"-box of a general search engine and / or</li> <li>• Materials provided by his / her professor.</li> </ul>	Grade 1-10=			
Score:		0 very good	0 good	0 sufficient	0 poor	0 bad	0 very bad

Total score (maximum 100) =

## Appendix B: Survey Questions and Results

### *\*Item 1*

I attended the workshop when we used the Scoring Rubric for Performance Assessment of Information Literacy.

0 Yes (9 x)

0 No (1x)

0 I don't remember (0x).

### *\*Item 2*

After the workshop when we used the Scoring Rubric ...

0 I retrieved it at least once to use it again (7x)

0 I didn't use it again (3x).

### *\*Item 3*

Which is the variant of the curriculum you are subscribed in?

0 Full-time day variant (4x)

0 Part-time evening variant (6x).

### *\*Item 4*

What is your age?

21 (2x), 23 (2x), 31, 32, 34, 36, 39, 48

### *\*Item 5*

What is your gender?

0 Male (6x)

0 Female (4x).

### *\*Item 6*

Are you willing to participate in a follow-up interview about the use of the Scoring Rubric?

0 Yes (5x)

0 No (5x).

### *Item 7*

If you answered 'Yes' to item 6, please write down your name here below.

All 5 students who answered item 6 positive gave their names for item 7.

*\* Indicates Response Required*

## **Appendix C: Questions used in the focus group**

The focus group was organised in two 'rounds'. The first round was on the main question of the interview: can you explain, as concretely as possible, the situation or the situations in which you used the scoring rubric? Continuing questions at this point were:

- Was it in the context of your study or in the context of your regular job?
- Were other people involved with it?
- What was your aim when you used it (for instance to explain the rubric to other people, to assess your own work or to assess work from one of your peers)?
- How well did you think that it worked?

The second round was on the participants' opinions of alternative ways of use not being mentioned in round 1. The moderator presented the list of possible student uses of a scoring rubric from the literature (see the literature review in this paper) and asked the students which of the listed ways of use are in their opinion realistic and useful for the Scoring Rubric for Information Literacy.

## References and notes

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- <sup>2</sup> Ibid.
- <sup>3</sup> A. Jonsson, and G. Svingby, "The use of scoring rubrics: reliability, validity and educational consequences", *Educational Research Review* 2, (2) (2007): 130-144.
- <sup>4</sup> Van Helvoort, "A scoring rubric", p. 34.
- <sup>5</sup> Y. Reddy, and H. Andrade, "A review of rubric use in higher education", *Assessment & Evaluation in Higher Education* 35, (4) (2010): 435-448.
- <sup>6</sup> Ibid., p. 438.
- <sup>7</sup> Van Helvoort, "A scoring rubric".
- <sup>8</sup> See for instance L. Shepard, "The role of assessment in a learning culture", *Educational Researcher* 29, (7) (2000): 4-14.
- <sup>9</sup> D. Scharf, N. Elliot, H.A. Huey, V. Briller, and K. Joshi, "Direct assessment of information literacy using writing portfolios", *Journal of Academic Librarianship* 33, (4) (Jul, 2007): 462-477.
- <sup>10</sup> M. Oakleaf, "Dangers and opportunities: a conceptual map of information literacy assessment approaches", *Portal: Libraries and the Academy* 8, (3) (July, 2008): 233-253.
- <sup>11</sup> F. Bolton, "Rubrics and adult learners: Andragogy and assessment", *Assessment Update* 18, (3)2006): 5-6.
- <sup>12</sup> H. Andrade, and Y. Du, "Student perspectives on rubric-referenced assessment", *Practical Assessment, Research & Evaluation* 10, (3) (2005): 1-11.
- <sup>13</sup> Bolton, "Rubrics and adult learners", p. 5.
- <sup>14</sup> Andrade and Du, "Student perspectives", p. 4.
- <sup>15</sup> Ibid., pp. 6-7.
- <sup>16</sup> Bolton, "Rubrics and adult learners", p. 6.
- <sup>17</sup> Ibid., p. 6.
- <sup>18</sup> Andrade and Du, "Student perspectives", p. 5.
- <sup>19</sup> Reddy and Andrade, "A review of rubric use", p. 437.
- <sup>20</sup> Andrade and Du, "Student perspectives", p. 5.

- <sup>21</sup> Bolton, "Rubrics and adult learners".
- <sup>22</sup> C. Radcliff, M. L. Jensen, J. Salem Jr., K. Burhanna, and J. Gedeon. *A practical guide to information literacy assessment for academic librarians* (Westport, Conn.: Libraries Unlimited, 2007), p. 73.
- <sup>23</sup> Ibid. but also E. Shoaf, "Using a professional moderator in library focus group research", *College & Research Libraries* 64, (2) (2003): 124-132.
- <sup>24</sup> Shoaf, "Using a professional moderator", p. 127.
- <sup>25</sup> Bolton, "Rubrics and adult learners".
- <sup>26</sup> Ibid.
- <sup>27</sup> Van Helvoort, "A scoring rubric", p. 25.