



WEBPA PEER ASSESSMENT

Using WebPA at the University of Twente from Blackboard



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1. Introduction

This document describes the usage of WebPA at the University of Twente from Blackboard. The first part describes how to add WebPA to your blackboard course, where the second part describes the further interaction between WebPA and Blackboard. For the academic background of using (WebPA) Peer Assessment, or the core functionality of WebPA, links to external resources are added.

2. Adding a WebPA peer assessment to your Blackboard course

2.1 Introduction

By default WebPA is not available within your blackboard course. You will have to enable it manually. (See section 2.2)

Additionally, in case you want to make use of a group peer assessment, you can consider to create and use blackboard groups before adding a WebPA Peer assessment to your blackboard course. Groups created in blackboard can be (re)used in WebPA.

2.2 WebPA availability

In order you use WebPA from blackboard, you need to enable it within the course you to use WebPA.

You can achieve this through the course "Control Panel", going to "Customisation" and selecting "Tool Availability":

Tool Availability
Use this page to control what tools can be used, as well as which users have access to those tools. [More Help](#)

Filter by: ▾

Cancel Submit

Tool ▲	Available	Visible to Guests	Visible to Observers	Available in Content Area
Achievements	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Achievements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adaptive Release	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Announcements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Assignment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blackboard Collaborate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Blackboard Collaborate Course Room	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blackboard Collaborate MashUp	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Scroll down for the Tool called "WebPA", check the "Available in Content Area" checkbox, and click "Submit" to finish:

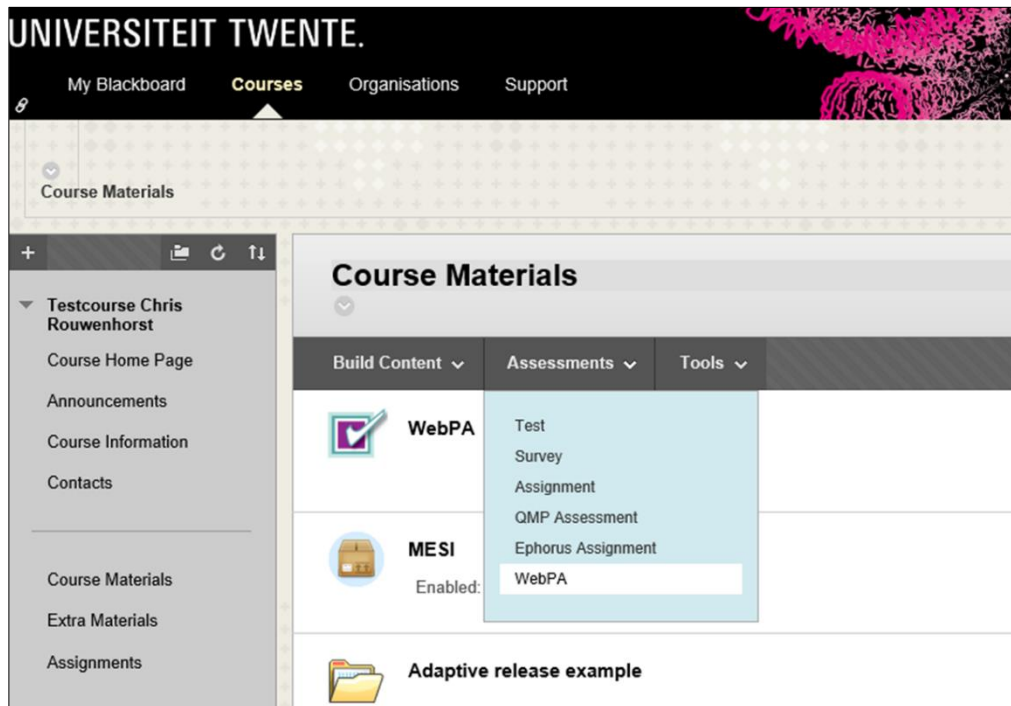
Click **Submit** to finish. Click **Cancel** to quit.

Cancel Submit

Tools Area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tools Area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unenroll Tool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Web Link	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WebPA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wikis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
YouTube Video	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
YouTube Video (in Text Editor)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

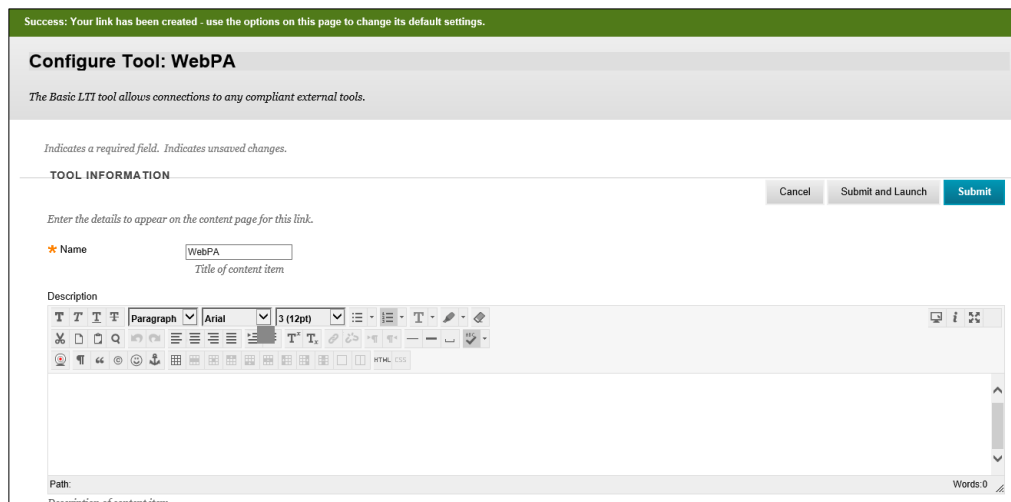
2.3 Add a WebPA peer assessment

Add a WebPA peer assessment to your blackboard course, by selecting it from the "Assessments" Menu, being in edit mode:



2.4 Configure a WebPA peer assessment

You can configure the newly created WebPA component module, to use the WebPA and blackboard interaction, in the way you want. At first you can change the name of the WebPA assessment, in the way it will be shown to your students. (by default it's just called "WebPA")



The following sections at the configuration page can be ignored, as they are configured for normal usage:

- Personal Data
- Custom Parameters

At last, you can configure the section "Services". Here you can configure the settings related to the "Outcomes" of the peer assessment, which can be returned from WebPA to the blackboard "Gradecenter":

SERVICES

The following parameters identify which of the LTI services are made available to this tool provider.

*** Outcomes**
Select whether the outcomes service is to be made available.

*** Create a grade column in advance of first use?**
A grade column may be created when the first grade is received or when the link to the external tool is created.

*** Display format for column**
The display format format used when creating the column may be either percentage or score.

*** Points Possible**
Maximum number of points which may be awarded for this item. The default is 100.

*** Include this column in grade calculations?** Yes No
Select No to exclude the column from grade calculations.

*** Show this column to students?** Yes No
Select No to hide the column from students in the My Grades area.

*** Memberships**
Select whether the memberships service is to be made available.

*** Setting**
Select whether the setting service is to be made available.

Caution: The last section "Groups" is only to be used to explicitly **exclude** groups from accessing the WebPA peer assessment

Finally you can submit the configured WebPA peer assessment.

3. WebPA – Blackboard usage

3.1 Introduction

When opening the newly created WebPA Peer Assessment, you will get the following overview:

The screenshot shows the WebPA OS interface. The top navigation bar includes 'My Blackboard', 'Courses', 'Organisations', and 'Support'. The main content area is titled 'WebPA OS' and contains a welcome message, a list of sections (my forms, my groups, my assessments), and a 'Getting Started' section. A left-hand menu is visible with sections for 'Tutors', 'Admin', 'Support', and 'Technical Problem?'. The 'Admin' section is highlighted with a red box and contains links for 'admin home', 'view data', 'sync data', 'transfer grades', and 'sharing'.

For information on how to use WebPA by creating forms and assessments, please check the WebPA manual on <http://webpaproject.lboro.ac.uk/support/manuals/academic-tutor-manual/>.

For more ideas on how to effectively use WebPA, see also <http://webpaproject.lboro.ac.uk/academic-guidance/>

For the WebPA usage, in combination with blackboard, the left menu section "Admin" is of most importance, below you will find the following options described in detail:

- Sync data
- Transfer grades

3.2 Sync Data

In order to have your students (and optionally the groups) available in WebPA, you **manually** need to sync "data" between Blackboard and WebPA. When clicking "sync data" you will get an overview of (optionally) all data to be synced:

Tutors

- home
- my forms
- my groups
- my assessments

Admin

- admin home
- view data
- sync data
- transfer grades
- sharing

Support

- help
- contact
- return to VLE

WebPA OS synchronise data

This page allows you to update WebPA OS with any changes to the enrolments in the course which is the source for this module. These updates may include:

- new users
- changes to the names and/or email addresses of existing users
- changes to the type (tutor or student) of an existing user
- deletion of users which no longer exist in the source course
- memberships of groups in the VLE which are part of a set (added as a collection)

Click on the *Continue* button to obtain a list of the changes to be processed. The updates will not be made until you confirm them.

The last update was performed on 8 March 2016 at 4:09 pm.

When continuing you will get an overview of the data to be synced, click "Update WebPA OS":

WebPA OS synchronise data

Users to be added

username	Name	type
m7661808	Marloes Luttkhuis	tutor
m7641362	Karen Slotman	student
m7661780	Eduardo Hermsen	tutor
m7660721	Chris Rouwenhorst	tutor
s6300130	V. Demostudent 130	student
s6300131	V. Demostudent 131	student
s6300132	V. Demostudent 132	student
s6300133	V. Demostudent 133	student
s6300134	V. Demostudent 134	student
m7647743	Wytze Koopal	student
s6300135	V. Demostudent 135	student

Select any new collections to be added

Name	Groups	Members
<input type="checkbox"/> WebPa	2	6
<input type="checkbox"/> Groepen	1	3
<input type="checkbox"/> Groepen WebPa	1	7

Now the blackboard users (Students and Tutors) and groups are synchronised with WebPA, and are viewable via de Admin menu option "view data".

3.3 Transfer Grades

If you decided to include the grades from WebPA to blackboard, you need to **manually** transfer back the grades to the blackboard gradecenter. This can be achieved by clicking the "Transfer grades" option from the Admin menu.

3.4 Return to Blackboard

You can return to your Blackboard course by clicking the menu option "Return to VLE".

4. WebPA scoring algorithm

4.1 Normalise the Scores Awarded by each Student

All the marks each student awarded are added up (total up each row).

Alice awarded: $4 + 4 + 3 + 2 + 1 = 14$ marks

Bob awarded: $3 + 5 + 3 + 2 + 0 = 13$ marks

Claire awarded: $4 + 4 + 4 + 4 + 4 = 20$ marks

David awarded: $3 + 5 + 4 + 3 + 1 = 16$ marks

Elaine awarded: $0 + 0 + 0 + 0 + 0 = 0$ marks

Once it is known how many marks each student has awarded, the scores that they gave can be received and the fractional score for each student can be calculated. In other words, every student in the group has an identical 'cake', but they can give different sized slices to each other (and themselves!).

Alice awarded a total of 14 marks (so her cake was split into 14 slices).

Alice gave herself 4 marks = $4 / 14 = 0.29$

Alice gave Bob 4 marks = $4 / 14 = 0.29$

Alice gave Claire 3 marks = $3 / 14 = 0.21$

Alice gave David 2 marks = $2 / 14 = 0.14$

Alice gave Elaine 1 marks = $1 / 14 = 0.07$

These are the fractions awarded by Alice to each student. As a test, all the fractions can be added up and they should equal 1.

This process is repeated for every student for every question. In this example there is only one question so we only need to add up this one question.

4.2 Calculate the WebPA Score awarded to each Student

Before each student's WebPA score is calculated, there's one more bit of information that is needed; how many students were in the group, and how many of them submitted marks.

In this case the group had 5 members, which means 5 cakes should be split between 5 members. Unfortunately, Elaine didn't submit any marks, so only 4 cakes are available!

To compensate, WebPA calculates a multiplication factor to bring the total number of cakes back up to 5. This value is identified as the "fudge factor".

$$5 \text{ (students in group)} / 4 \text{ (students submitting)} = 1.25 \text{ (our fudge factor)}$$

The WebPA scores can now be calculated. Taking Alice as an example, we add up all the fractional scores she received. We calculated Alice's own fractions above, but the other students' fractions were produced in exactly the same way.

Alice awarded herself 0.29 (as we saw above = 4 / 14).

Bob awarded Alice 0.23 (= 3 / 13).

Claire awarded Alice 0.20 (= 4 / 20).

David awarded Alice 0.19 (= 3 / 16).

Elaine didn't submit, so she effectively awarded 0.00.

If all the individual factors are added up, the WebPA score is calculated. For Alice:

$$\text{Alice's WebPA score} = 0.29 + 0.23 + 0.20 + 0.19 + 0.00 = 0.91$$

If everyone had submitted the assessments, that would be fine, but remember we had one non-submission, so we have to bring in our fudge factor from earlier.

$$\text{Alice's actual WebPA score} = 0.91 \times 1.25 \text{ (the fudge factor)} = 1.14$$

If the same calculations are done for each of the other students, we find:

$$\text{Bob's actual WebPA score} = 1.18 \times 1.25 = 1.47$$

$$\text{Claire's actual WebPA score} = 0.89 \times 1.25 = 1.11$$

$$\text{David's actual WebPA score} = 0.68 \times 1.25 = 0.85$$

$$\text{Elaine's actual WebPA score} = 0.33 \times 1.25 = 0.41$$

As a quick check, adding up all the WebPA scores for every student, it should equal the number of students in the group. Adding up the scores gives 4.98, which allowing for rounding errors (we're using 2 decimal places in this example) is 5, the total number of students assigned to the group.

4.3 Calculate the Student's Final Grade

Now the WebPA score have been worked out, it is easily to calculate a student's final grade using the overall group mark.

Let's assume we've awarded this group's work with an 8. That's 80 out of 100 points. (teacher / tutor gave 80% according to WebPA scoring system). Ordinarily, this may have given everyone in the group an '8', but now using the WebPA scores to give either proportionally higher or lower marks according to the students actual performance in the group. This is one of the clear benefits of using WebPA.

Alice's Grade = 1.14 (WebPA score) $\times 80 = 91.2$ points (Dutch mark will be a '9,1')

Bob's Grade = $1.47 \times 80 = 117.6\% = 100$ points (we don't give grades above 100%)

Claire's Grade = $1.11 \times 80 = 88.8$ points

David's Grade = $0.85 \times 80 = 68.8$ points

Elaine's Grade = $0.41 \times 80 = 32.8$ points

It is clear that three of the students did better than the group mark would have suggested, but two students were worse off. According to the peer assessment, that's a fair result.

4.4 PA Weighting

The first parameter that can be changed is the PA Weighting. This defines how much of the overall group-mark should be fixed (given to all the students automatically), and how much should be peer-assessed (calculated using the algorithm above).

If instead of peer-assessing the entire group mark it is possible to use 50% instead, then all 5 students would automatically receive the other 50% of the group mark. In this case, with an overall group mark of 80 points out of 100 points (80%). With the WebPA score of 50% that's an automatic 40 points fixed, and the remaining 40 points will be adjusted by the peer assessment. The students final grades would then become:

Alice's Grade = $40 + (1.14 \times 40) = 85.6$ points (mark = 8,6)

Bob's Grade = $40 + (1.47 \times 40) = 98.8$ points

Claire's Grade = $40 + (1.11 \times 40) = 84.4$ points

David's Grade = $40 + (0.85 \times 40) = 74$ points

Elaine's Grade = $40 + (0.41 \times 40) = 56.4$ points

4.5 Weightings and Penalties

There are other factors that can come into play which affect the overall scores received by each student. The calculation above assumes that the entire group mark should be adjusted using the peer assessment. This can lead to large spread of marks. Fortunately, WebPA allows the algorithm to be adjusted, using a couple of extra parameters, controlling the spread of marks.

4.6 Non-Completion Penalty

The second parameter is the non-completion penalty. For students who didn't take the peer assessment, a penalty of up 100% can be awarded to the final grade.

As an example, awarding a non-completion penalty of -10%, Elaine, who failed to take the assessment, would receive this penalty:

Elaine's Grade = weighted WebPA mark – non-completion penalty

Elaine's Grade = 56.4 - 10% = 50.76%

This chapter 4 has copied and modified to support the Dutch grading system from the manual at:

<http://webpaproject.lboro.ac.uk/academic-guidance/a-worked-example-of-the-scoring-algorithm/>