Section 1

Information for Academic Tutors

Introduction

WebPA supports academic tutors by alleviating the problems traditionally associated with the assessment of group work, often replacing an existing paper based method and saving time. WebPA is an award winning peer assessment tool that helps support group work activities for formative or summative assessment.

This section of the WebPA Resource Pack will help an academic tutor to make an informed decision on whether WebPA is the appropriate tool for their use and how to proceed.

Group work

This Resource Pack assumes that you already use, or have made the decision to use, group work in your teaching. However, if you wish to know more about the benefits of using group work, then a good introduction is 'supplementary information about self and peer assessment' available from **http://www.webpa.ac.uk/?q=node/107**.

In addition to published research on WebPA itself, a literature review of research on the use of peer assessment in teaching and the assessment of group work was carried out to inform the development of WebPA. This included an examination and comparison of other available tools for the peer assessment of group work **http://www.webpa.ac.uk/?q=node/288** .

"Students are much more satisfied — complaints have almost disappeared"
Dr Carol Robinson,
Maths Education Centre,
Loughborough University

"Overall marking is honest and credible"
Dr Keith Pond, Business School,
Loughborough University

Why WebPA is the right tool for the assessment of group work

WebPA specifically addresses and solves the most common issues facing academic tutors with regard to the assessment of group work:

- you need a tool to help with assessment which will save time and reduce errors

- you wish to reduce student complaints that the assessment is unfair

- you would like to give students individual marks for a group project but cannot assess what they have done in non-contact time

- you want to assess the process as well as the product of the group work.

How WebPA works

In essence, WebPA will allow you to create and manage an assessment for group work where students peer moderate the marks. WebPA is non-prescriptive and allows you to define the marking criteria and the

proportion of the overall group grade that can be moderated. The key tutor output is that student grades are generated in usable reports which will not only save time but also help to make group work fairer, along with the assurance that the tool is based on sound pedagogical research. If you wish to read more, then published research is listed in Section 4 (*Publications*). One of the key published papers to read is 'The development and evolution of an online peer-moderated-marking tool: WebPA' (Loddington, S., Pond, K., Wilkinson, N. and Willmot, P., 2009, *British Journal of Learning Technology*).

There is a demonstration version of WebPA where you can log in as both an academic tutor and a student to try out the system and explore the features:
http://webpaos.lboro.ac.uk/

What are the benefits of using WebPA?

The following is a summary of the benefits that have been identified through evaluation as having the most impact. A more detailed overview is given in the WebPA effective practice guide **http://www.webpa. ac.uk/?q=node/578** .

For students:

- it is a confidential and secure way of assessing individuals within group work activities

- they are involved in the assessment process, reflecting on their own and their peers' performance

- they receive timely and balanced feedback on their assessment through the peer assessment tool

- it positively impacts on individual performance and team dynamics, enriching the overall learning experience

- they find it to be a fairer way of assessing their work and complaints are largely reduced.

For more information on student attitudes to WebPA, see the enclosed report on 'WebPA Student surveys' and read 'Perceptions of peer assessment in university teamwork' Willmot, P., Pond, K., Loddington, S. P. and Palermo, O. A., 2008, *International Conference on Engineering Education.*

"The literature review is very useful - particularly the table of references"
Dr Anthea Connolly, Faculty Assessment and Feedback Project Officer, University of Leeds

For an academic tutor:

- it is sophisticated, yet quick and easy to set up. It can be used in formative or summative assessment saving time and reducing workload

- there is flexibility to create your own assessment criteria, scoring ranges and groups to suit the way you teach - in any subject discipline

- it helps them to develop a picture of what happens within groups and to assess hard-to-measure outcomes such as group working and leadership

- it provides students with alternative forms of feedback within their assessment

- the generation of individual student marks is automated using a pedagogically sound methodology

- WebPA has been successfully used and evaluated for more than 10 years, giving confidence and access to a community of users.

For departments and institutions:

- students respond positively to the use of WebPA and anecdotal evidence shows that students request its use where assessment practices are considered unfair

- WebPA has the potential to improve results relating to feedback on national student surveys

- the tool can be offered as a service, centralising the recording of group assessment scores

- WebPA can contribute to the institutional quality assurance policy

- the tool can impact on assessment policy.

How do others use WebPA?

A number of case studies are available, covering a wide range of disciplines and institutions **http://www.webpa.ac.uk/?q=case_studies**.
The case studies provide the reasons and drivers behind why the tutor adopted WebPA, the effects it has subsequently had on their teaching and the students' attitude, behaviour and engagement with the process. The following case studies are included with this pack:

1: Aeronautical and Automotive Engineering
2: Biology, Chemistry and Forensic Science
3: Civil and Building Engineering

Common concerns before starting to use WebPA

Reliability of WebPA

The team behind WebPA have invested time and energy into ensuring that the tool will not let you down. The reputation of WebPA in the academic community is important. Bug fixes are available from the download page.

As WebPA is an open source tool there is an active community which is ready and able to answer any questions relating to its installation and use. It is hoped that you in turn will be able to help new users.
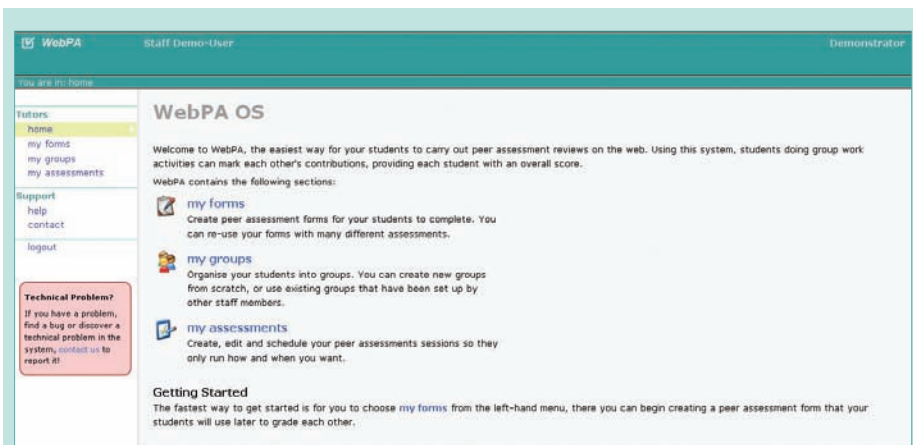
Figure 1. Demonstration version of WebPA

Because WebPA is open source, this means that you have all the source code for the tool. You can therefore make direct modifications and enhancements to the tool or find a developer with the correct skills to help you.

Validity of assessments conducted through WebPA

Concerns have been raised in the past about the validity of the end marks in comparison with those given if the academic tutor alone was marking the group work product. Evidence provided by Willmot and Crawford (2005) shows that this type of marking is fair and comparable to that of other practices.

As with other assessment practices, the acceptance of the process by the QAA is important. According to the QAA section of the 'Code of Practice on Assessment' (regarding self and peer assessment) the processes used in validity, reliability and explicitness have to be addressed in order to show that the practice is credible. Academics using WebPA at Loughborough University are confident that they are able to address all three points.

Getting students to value the method of assessment

As with many innovative practices it can be difficult to get the students to value the method of assessment. As the academic tutor, you will need to address the reasons for using this type of assessment with the students, as well as the benefits they will gain from the practice. Additionally, you will need to address any concerns that they have about the assessment practice.

Will groups collude in awarding marks?

It is normal to be concerned that a group will collude and award the same marks for all of the members. The answer to your concern lies in how you perceive this behaviour. If you believe that there is no problem in the group and that good group work has been demonstrated then there is no collusion. Conversely, if you feel that other influences have been in play then you will need to address the group and investigate further - WebPA cannot determine this itself and so the academic tutor must look for anomalies in results or student feedback and address issues as they arise.

This area of group work has interested some of the academic tutors using the tool and the research has been reported by Robinson (2006).

What about unfair marking?

Over the years of use there have been a few cases where unwarranted marking down of an individual has been seen within a group. Another similar issue is when a student marks himself incredibly well compared to other members of the team. In both cases, it is normally seen that the rest of the group has been more realistic and the final mark is adjusted appropriately (moderated) as a result. The way WebPA calculates the marks greatly reduces this risk and you as the academic tutor can always overrule or further investigate any occasional cases where you think marking down has occurred.

Although occasional accusations of bullying via WebPA have been made, none have been found to be true when examined. An example of such an accusation came from 'Student A' who had overheard a conversation where a team mate said that he was going to use WebPA to mark 'Student A' down and was encouraging others to do the same. When the

tutor examined the input by all the team members this bullying had not occurred and 'Student A' actually did quite well. Although the discussion had occurred between the team mates, the confidential input of the scores for the assessment made it easier for individuals in the team to enter their own opinions. The anonymity experienced by the students is key and has been examined in Pond, Coates, and Palermo (2007).

'Gaming' of WebPA

There is always the risk of students trying to 'game' or play WebPA. There will always be students who wish to use WebPA to their advantage and work out how to gain higher marks. Two main factors contribute to student behaviour: team familiarity and year of study (final year students are more concerned with marks than first year undergraduates). However, the risks of students 'gaming' WebPA are no greater than when a manual system is used for peer moderation.

WebPA can assist in the prevention of the tool being 'gamed' as the academic tutor has the power to moderate and change the marks that are

influenced. As with collusion, it is the responsibility of the academic tutor to identify and address any irregularities in the students' input and final grades provided by WebPA.

Integrating WebPA with institutional systems

WebPA can initially work as a stand-alone tool. This enables you to get a pilot up and running quickly. However, in the long term it is likely that you will want to integrate WebPA with institutional systems.

In order to move towards integration with the Student Information System (SIS) at your institution you will probably need to involve learning and teaching support services and institutional IT services. WebPA does not support any particular SIS and it will be up to your institution to decide how the integration will occur. Integration has successfully been achieved with a number of different SISs and it may be helpful to post to the JISCmail list to see what has happened at other institutions.

Similarly, WebPA will not automatically integrate with Virtual Learning Environments

(VLEs). Again, this would require some local development. For example, Coventry University have developed a module that allows limited integration with Blackboard Vista (which is now available for everyone on the WebPA SourceForge area). Work is ongoing to provide integration with other VLEs.

How do I convince my department/institution to let me use WebPA?

The experiences of other adopters of WebPA show that you will need to engage a number of different groups at your institution (management, IT, learning and teaching support etc – both at departmental and institutional level), in order to get WebPA up and running. This may be fairly straightforward, particularly if you can demonstrate that you can already align the intended learning outcomes of the module which contains group work with WebPA. Make use of the briefing papers, sections written for other groups and case studies within this Resource Pack to help you engage others.

"The visiting panel commented that the peer assessment in part B was commendable"
Extracted from Accreditation Report of the IMech E, May 2006 for Loughborough University

Cost

There is no cost in obtaining the software or the support supplied by the community. However, there may be costs associated with using the time of technical or other support staff or purchase of a server if this is required.

How do I get WebPA installed?

WebPA can be downloaded free of charge from the SourceForge site **http://sourceforge.net/ projects/webpa/**. Unless you are confident in progressing with the installation of the tool yourself, it is recommended that you approach a learning technologist to assist you. They will be able to help you identify where and how the tool can be installed. They may want to read the relevant briefing paper and/or Section 3 (*Information for IT support*).

Starting with a pilot

Testimonies of those who have adopted and embedded WebPA show that a pilot has been extremely beneficial. It allows potential users to demonstrate that WebPA addresses the assessment needs of the module

and is accepted by the students. In all cases, where the pilot has been successful, this has led to the wider adoption of WebPA.

For a successful pilot it is important that you allow a long enough lead-in time. Assuming that you want to be using WebPA in the first semester of an academic year, it may be that you and your support team install the WebPA tool onto local servers up to six months in advance. This allows for sufficient time for your support team to install WebPA and for you to familiarise yourself with the tool before you use it with students. Of course, this is just a guide - some adopters of the tool have managed to get an installation and pilot running within one semester.

Once the pilot has run it should be formally evaluated to see if goals were met and if there were any additional, unexpected benefits. If the pilot is successful, then changes to module specifications will probably be necessary to fully embed WebPA.

It is difficult to identify the maximum and minimum cohort of students for a pilot, as all modules and subject areas will differ. Currently WebPA runs with

cohorts ranging from as little as 20 students to a maximum of over 200.

WebPA doesn't need a 'high end' server to run and your department or institution should be able to provide a server for the co-hosting of WebPA. This means that any technical admin costs are often negligible as the WebPA support is integrated with any other services running on the server.

Table 1 provides an example of how a pilot may be undertaken.

Achieving wider use of WebPA within my institution

One of the hardest parts after a successful pilot is convincing more academic tutors to use WebPA and the institution to install and support it centrally. Depending on your original motivations for adopting WebPA in your teaching, you may wish to consider becoming a 'champion' within your institution. The role of 'champion' may entail nothing more than being prepared to share your experiences and extolling the benefits to others. At the University of Hull, Gordon and Chin et al presented at the University's annual Learning and

Teaching Conference, giving a paper entitled 'Encouraging team skills through enhancing engagement: the use of peer and self assessment in group work' (2009). Other academic tutors wishing to use WebPA have subsequently approached the team for support and access to the tool. Such an approach could attract internal grant and award funding. Alternatively, learning and teaching support staff within your institution may be happy to take on this role for you.

Getting support

Join the community of users to get further support – see the related briefing sheet. The Higher Education Academy Engineering and Physical Sciences Subject Centres will also provide a limited amount of support and advice. A special interest group (SIG) of users and developers provides another route for information and support. **http://webpa. ac.uk/?q=node/487.**

Table 1. Example of how a pilot may be undertaken	
Task Name	**Task Description**
Identification	Identify all the people necessary to run a pilot – academics, technical and support staff.
	Meet and engage with those involved, ensure everyone is comfortable with what is involved from both an academic and technical perspective.
Preparation	Agree contacts for both technical queries and academic enquiries.
	Check that everyone is clear about what is to happen when and has any necessary instructions and is aware of bug tracking etc.
Implementation	Download and install WebPA.
	Provide user training for academics/support staff as necessary.
	Run pilot.
Evaluation	Meet with both the academic and technical contacts to discuss how the pilot went.
	Report on any issues that have arisen and agree a way forward.