



Senate

Paper Title	SMART Timetabling Project Report
Outcome requested	Senate is asked to receive this report on action taken since its last meeting to address the problems that occurred with the SMART project.
Points for Senate members to note and further information	<ul style="list-style-type: none"> • At the last meeting, members expressed concern at the problems that had arisen with the SMART Project. • A special meeting, chaired by the Vice Principal, was held the following week. • A special review, chaired by an external member of Council, John Yard, has been commissioned from KPMG, due to report at the end of November 2013 • The Project Board held its wash up meeting on 16 October • A Timetabling Working Group has been established and is meeting weekly to plan for Semester 2 and 2014/15 timetables.
Questions for Senate to consider	<ul style="list-style-type: none"> • Do members feel that the report shows that action is being taken to address the concerns they raised? • Are there other actions that should be considered and are not covered?
Regulatory/statutory reference points	The Timetable System responds to internal constraints
Strategy and risk	QML has identified the importance of providing on-line, personalised timetables to students and staff (if possible), and improving management information about the use of teaching space.
Reporting/consideration route for the paper	The report draws on the project closure report which has been agreed by the SMART Project Board, the notes from the last meeting of the SMART PB, a report to QMSE and a report to VPTLAG on the work of the Timetabling Working Group.
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Sponsor	Wendy Appleby

SMART Timetabling Project – Report to Senate

Introduction

This paper reports to Senate on actions taken since its meeting on 3 October 2013. It covers the following areas: actions identified following Senate on 3 October, summary of project closure points and update on the work of the Timetabling Working Group. In addition, the President and Principal requested that a special review of lessons learned from the timetabling project be undertaken by KPMG and report by the end of November.

At this stage in the academic year, preparations for Semester 2 are nearly complete and planning for the approach to the 2014/15 timetables is being undertaken.

The project closure report has been completed and agreed by the Project Board.

SMART name

SMART was the name of the original timetabling project with Syllabus Plus being the product name. The Timetabling Working Group discussed the question of what to call the timetabling system as this was a point of feedback from Schools. The QMSU representative was asked to consult with students on their preferred name. Students have asked for the system to be called MyTimetable (MyT), which the Timetabling Working Group has endorsed.

Project closure meeting

The following points were noted at the Project Closure Meeting on 16 October 2013, detailed in the Project Closure Report and reported to QMSE:

- Schools report that the ITS platform performance continues to be a major issue due to running on the legacy systems as the running of the software is exceptionally slow. While, there has been some improvement after the interventions of ITS during w/c 7 October 2013, schools have said that there are still real problems with the speed with which the software is able to run on the legacy systems.
- ITS have said that they had a choice between moving Q-Review and S+ to the new data centre for the start of the semester; they chose to move Q-Review, S+ will move over when the next stage of the data centre is available and this will improve the speed of running of S+.
- Schools report that they continue to find aspects of the S+ software cumbersome to use – some of this relates to how teaching activities were set up in order to get going in the new software, other aspects were the number of screens etc. Also, academic staff in particular did not like the outputs and found them difficult to understand.
- The Central Timetabling Team have reported that there are still teaching space changes going on but these are reducing. The experience this year has been similar, or slightly better, than previous years.

- Schools report that they are still using workaround systems for a range of different reasons in different contexts but mainly to get quick information to students and staff. It was noted that now, for HSS, most students have now 'learnt' their timetables anyway so are not relying on the S+ outputs.
- Schools identified the provision of training going forward as essential and noted that in some cases, where more than one person was trained, only one of them was left to do the work at the start of the year.
- Students continue to report that the **main issue for them is the availability of timetables at an earlier point in the year**. Students are not reporting other problems such as cancelled teaching activities because of problems with timetables. The publication of the name of a contact person to whom students raise issues led to three queries being received, one of which referred to the VLE anyway. The PB noted that workarounds by schools have made the big difference here.
- Students see the potential with using SMART of enabling bookings of unscheduled space (across the board) for private study and are keen for this to be looked into as a future development.
- There have been many problems with QMPlus which have compounded the confusion and pressure for school staff for example, a student's record may be correct in SITS but the module is not being picked up in QMPlus, meaning that students have had to be manually entered.
- The Project Manager and Scientia Consultant reported from the data available in S+ that 90% of the 16750 enrolled students have modules timetabled in S+. Of the 10% (1675) who don't, this includes 750 CCLS students, 250 dentistry students and other PGT in SMD where the Project Board was aware there might be non-compliance with S+, for a variety of reasons.
- From SMD, PGT Institutes report that there are still issues getting appropriate rooms as they always have to follow after the MBBS bookings. A review meeting is set for the end of November to assess these issues and to look at the timeline issues for SMD for the development of the 2014-15 timetables.
- The Board discussed options to enable timetables to be provided to students at much earlier point. The provision of partial information with explanatory notes (e.g. this is the core module lecture timetable, your seminars will appear by X) might be preferable so students can know core information on a personalised basis as soon as practicable. (It was noted that core information had been available on a general basis since June.)
- Potential sanctions and approaches to those who did not comply with deadlines was discussed briefly but it was noted that to timetable, it was necessary for all required information to be available.
- ARCS reported that programme changes had all been processed apart from a few that had just arrived and there were 60 helpdesk calls outstanding – these were a variety of things, some of which may impact on S+ and QMPlus. For the future, a number of actions were going to be taken forward to support these activities and the on-line process for programme change, that enables schools to

instigate it and run the process, would be available as it was now being developed.

Timetabling Working Group

The Project Board established a timetabling working group (TWG) to pick up the issues that were outstanding from the project and make plans for Semester 2 and 14-15 timetables. The terms of reference are given in the appendix. The Group comprises representatives from ARCS, ITS and faculties; at present it meets on a weekly basis.

Action plan

This summary lists the issues that were raised at the start of Semester 1 and considers the proposed solutions. It was created from feedback from schools/institutes received at the time of the October meeting of Senate and provided to the special meeting convened the following week. The action plan is given in Appendix 2 with a commentary on progress is noted in italics.

Semester Two issues

The Timetabling Working Group has spent several meetings considering actions for Semester 2 as follows:

- Schools met the deadline for updated information to the module directory to support Semester 2 study abroad students' choices
- The timetabling team are working through outstanding bookings and late requests for Semester 2
- TWG has considered the process of module changes: 'add and drop' will be used again but only made available to users who have received training on it
- TWG has noted that module changes may occur from early December and hopes that the bulk of changes will be dealt with before teaching starts
- ITS reported that MyTimetable will move to the new data centre at the end of November
- The process of registering Study Abroad students for modules has been discussed and actions picked up with the Study Abroad office
- Individual outstanding queries have been looked into as needed
- Week labels have been considered and a new proposal put forward and appear wk1 s2 (SMD 15)
- The information on the Timetable Display was reviewed by TWG to remove superfluous details that users have reported are confusing
- In the first instance, the interface with SITS would only be run once per day – this would be monitored and increased if necessary in future
- There was general discussion about whether or not students should be able to see Semester 2 from the beginning of the academic year; there was a mixed reaction to this from schools/institutes

2014-15 Timetable construction

The Timetable Working Group has now moved on to consider the construction of the 2014-15 timetable and has considered the following to date:

- Timetables to be published to students as soon as possible even if they are not complete and accompanied with an explanation of when they might receive more details and expect them to be completed. Allowing students to view timetables as they developed would also aid clash checking.
- To request branding for 'MyTimetable/MyT' this is work in progress so not yet finalised.
- Each school/institute should be asked to identify a small number of staff to be responsible for the school/institute's timetables as this would support communication and make training more effective
- The timetabling team would contact schools/institutes to establish who should be involved for 2014-15
- For 2014-15, the current activity templates set up in MyTimetable would be rolled forward and checked
- In January, the central team would undertake data cleansing activities of the rolled forward timetables
- The Central Timetabling Team would propose conventions for naming different activities etc in the activity templates to make them more consistent for students
- 14 February 2014 was confirmed as the deadline by which all module availability information should be submitted to ARCS
- SMD would be contacted to reiterate the need for adherence to the prescribed timeline and numbers of users involved
- Schools/institutes have emphasised the importance of providing refresher training on the early stages of the system's use as the previous training was nearly a year ago
- Consider report developments to be taken forward by ITS so that registers and other outputs could contain more data and not require duplication with other teams n QM

This work will continue until the construction timeline and process for 2014-15 is agreed by the TWG.

WJA
November 2014

TWG membership

Wendy Appleby (Chair), Jane Pallant, Paul Kent, Martin Coles – ARCS
Chris Sparks/Emma Yates, Jenny Gault, James Kilvington - HSS
Jean Smith, Jo Young – S&E
Christine Simpson, Ben Roberts/Ciara Byrne, Vicki Adrienne - SMD
Gaby Dale Leal – QMSU
Jason Bunning/Tony Higgings - ITS

TWG terms of reference

- 1 To monitor the action plan to address the problems that have occurred with the 2013-14 timetables
- 2 Agree the week numbering system
- 3 To ensure pressure is brought to bear to enable S+ to move to the new datacentre
- 4 To monitor any further issues relating to the S1 2013-14 Timetable
- 5 To set deadlines, identify processes and monitor on key events for the production of the S2 Timetable
- 6 To highlight points to report to faculty executives and QMSE should concerns arise about S2 timetables
- 7 To plan the timeline and approaches for the delivery of the 2014-15 timetable, taking account of lessons learned and next steps from the SMART project.
- 8 To decide what to call S+/SMART/The timetable tool going forward

Key points to consider for Semester 2

- Checking study abroad 'B' version modules
- Ensuring modules are connected to the parent module in S+
- Ensuring sessions are scheduled for the start of November and detail is in the module directory
- Registration of students for Semester 2
- Supporting module changes and timetable changes (as early as possible).
- Ensure all teaching activities have a room allocated
- Schools to make Associate returns by 1st November
- Teaching Bookings Team (TBT) to complete Semester 2 timetable by 1st December

Key points to consider for 2014-15

- Developments to the look and feel of the output timetable
- Actions needed for removing work-arounds
- Designation of core users and their training
- The division of activities between the central team and local teams
- Process developments required now that S+ is in place (the project chose to build on existing processes and only change deadlines, the policy and software to ensure success). These will include, allowing the auto-scheduler to schedule continuing student groups, different ways of setting up activity templates, developments to link groups to QM+ etc.
- Looking at ways to enable a more standardised approach to timetabling in schools so that support could be easily provided.
- Look at mechanisms to support QMSU objectives of enabling students to book unscheduled rooms for private study.
- Ways to ensure compliance across the board and adherence to key deadlines

APPENDIX 2

Issue	Proposed Solutions
<p><i>Timing of publication</i></p> <p>QMSU report that students were unhappy at not receiving timetables until 20 Sept. The VP Education has explained that some of the reasons for this are:</p> <ul style="list-style-type: none"> • Students looking for or committed to part-time work. • Student-carers and students with fixed family commitments. • New students finding their bearings. • Commuter students planning their travel arrangements 	<p>Review the overall production timetable and ensure key dates provide for earlier publication. The key dates commence in February with the submission of module availability, moving to the date for draft timetable requests, to module pre-selection, publication for continuing student, pre-enrolment and publication for new students.</p> <p>Update at 27-11-13: <i>TWG is currently doing this</i></p> <p>Monitor closely adherence to these dates and involve Deans at an early stage if any school/institute is slipping behind.</p> <p>By dealing with continuing students at an earlier stage and ensuring all their group allocations are done early on, these students will get their timetables several weeks before the start of the semester. This allows more time to deal with new students' timetables in the period following pre-enrolment, allowing for publication before moving in weekend and enrolment.</p> <p>Update at 27-11-13: <i>This is planned for discussion at TWG</i></p>
<p><i>Apology to students</i></p> <p>Senate requested that an apology be sent to students.</p>	<p>An apology has been included in QM Student which went out on 7-10-13</p> <p>This has been extended to a message in e-bulletin which includes staff too.</p> <p>An apology has also been sent to staff and students following the QMPlus server failures and prevented access to timetables.</p> <p>Update at 27-11-13: <i>Action complete</i></p>
<p><i>Display for students and staff</i></p> <p>Schools/Institutes Find the display difficult to understand and use, particularly by academic staff and students</p>	<p>Address the 'week 6' issue – the suggestion is that teaching weeks before induction/welcome week are labelled weeks -1 to -6, so that week 1 is the first week of teaching for ME, non-clinical SMD UG and all PGT (including SMD).</p>

	<p>Update at 27-11-13: TWG has reviewed this and is awaiting an example to be developed by ITS</p> <p>Review the display to look at ways of making it more user-friendly by amending the display where possible and ensuring there is clear explanation of the information that appears.</p> <p>Update at 27-11-13: TWG has reviewed this and made recommendations to be developed by ITS</p> <p>Provide more information in the help sheets and keys to the timetables, particularly rooms.</p> <p>Update at 27-11-13: TWG has reviewed this. The Timetabling Team will provide this information</p>
<p><i>Communications with School/Institute staff</i></p> <p>Some schools reported that there should have been better, more comprehensive communications about what to expect.</p>	<p>In future, the TT team will ensure that school/institute administrators are included in all their communications so there can be the appropriate overview, particularly when there is a high turnover of staff.</p> <p>Update at 27-11-13: the team is now doing this</p>
<p><i>Speed of the system</i></p> <p>School/institute admin staff find the system too slow and presenting confusing systems messages.</p>	<p>ITS report that SMART is currently running on legacy hardware and has not yet migrated to the new data centres. The legacy hardware has reached capacity. More servers have been added but the underlying storage is now the limiting factor – it cannot receive data quickly enough. ITS put in place some interim measures which have led to some improvements. S+ to move to the new data centre asap and before the start of Sem 2</p> <p>Update at 27-11-13: ITS report that MyTimetable will move to the new data centre by 30 November 2013</p>
<p><i>The system crashes</i></p> <p>School/institute admin staff report that the system crashes often, leading to data loss and takes a long time to re-load.</p>	<p>ITS Report that stability and performance are closely linked. The steps proposed above will help resolve system crashes and reload times. This is still slow and a step change improvement will occur with the data centre.</p> <p>Update at 27-11-13: see above re data centre plans</p>

<p><i>Link to SITS when module registrations change</i></p> <p>School/institute admin staff Find that updates in SITS to module registrations etc take a long time to appear in Syllabus + (up to one day) and they need to be manually refreshed before they appear. It has been asked that this be automated.</p>	<p>ITS report that the interface from SITS to S+ takes approx. 2 hours to run and this is run once per day. When data is changed in SITS it can take a day to reach S+.</p> <p>Update at 27-11-13: <i>Clearer information was provided to School/Institute Timetablers at the end of each run of the SPDA link. TWG has looked at the issue of data transfer for Semester 2</i></p>
<p><i>Diets in SITS</i></p> <p>Some schools reported that the diets didn't generate correctly in SITS therefore meaning the module data did not appear in S+ (or QMPlus).</p>	<p>Unfortunately the problem of diet generation to occurred predominantly in one school, which made this problem particularly acute for them.</p> <p>Ensure that schools know the date from which they can be looking at diets in SITS so that problems can be identified early on.</p> <p>Ensure there are clear reporting routes if there are issues with diet generation does occur so that problems can be fixed quickly.</p> <p>Update at 27-11-13: <i>Of 2008 diets, 3 failed. TWG is looking at the timeline for 14-15 timetable construction and will factor in a reminder around diet checking.</i></p>
<p><i>Accuracy of SITS data</i></p> <p>Some schools have reported that SITS data is inaccurate. This has related to the problem of diet generation noted above and to module registrations changing.</p>	<p>ARCS is looking at how it can speed up changes to module registrations outside diets (within diets changes are managed by schools).</p> <p>Update at 27-11-13: <i>ARCS is putting proposals to PAR to enable more staff to remain in the back office to manage changes during the peak period.</i></p> <p>For programme changes, ARCS is taking forward a 'virtual registry' project which will replace the current paper-based system with an on-line process in mySIS.</p> <p>Update at 27-11-13: <i>this is making good progress and has much input from schools/institutes</i></p> <p>Across the board, we need to look at whether QM needs to change its approach to diets more generally as selections outside diets should be exceptions not the norm. The experience of the start of Semester 1 has been that module selections outside diets are common – more flexible diets would enable schools/institutes to</p>

	<p>manage these changes.</p> <p>Update at 27-11-13: <i>This issue manifested more in S&E than HSS – this point has been highlighted to the DTP.</i></p>
<p><i>Transfer of module data from SITS to S+ and QMPlus</i></p> <p>Some schools reported that even when the student record looked correct the modules did not appear in S+ and QMPlus, requiring chasing and manual allocation of students in QMPlus</p>	<p>This is the same interface problem as noted above.</p>
<p><i>Linking versions of modules where teaching is shared</i></p> <p>Schools/institute admin staff Find it time consuming linking the teaching for various versions of a module (eg where there is a different version for study abroad students). They have asked that this be linked in Enterprise.</p>	<p>The linking of modules that are taught together is inevitably a manual process as the system wouldn't necessarily know this information.</p> <p>If schools/institutes have limited time to do this task, we need to look to moving it to ARCS.</p> <p>Update at 27-11-13: <i>Schools are keen for this support and a proposal will be submitted to PSPAR</i></p>
<p><i>Allocation of students to groups/sets</i></p> <p>School/institute admin staff report that allocation of students to groups/sets is complex and have asked if this can be done separately and uploaded to the system.</p>	<p>Scientia has explained that allocations done outside Syllabus Plus would be an entirely manual process, and would require iterative manual imports to record the allocations in Syllabus Plus (not sustainable long term); students taking modules from more than one cognitive area would be allocated to activities in each, in isolation (introducing a variety of risks). On import, Syllabus Plus would identify clashes to be investigated and resolved. However, these could be avoided by allocating within the system.</p> <p>Also, the manual methodology proposed would not support the transition to informed auto-scheduling within approved constraints. Going forward, the best results will be achieved by allocating continuing students to activities <i>before</i> scheduling using the in-system allocation tools to guide grouping for effective scheduling, and allocate new students post scheduling to avoid clashes.</p> <p>Update at 27-11-13: <i>This is to be debated by TWG at a forthcoming meeting</i></p>

<p><i>Transfer of student group data from S+ to QMPlus</i></p> <p>School/institute admin staff have asked that the CSV fix for this be continued so that they don't need to recreate groups in QMPlus.</p>	<p>ITS reports: <i>agreed</i>: we need to investigate a permanent solution to groups issue.</p> <p>Update at 27-11-13: <i>ITS have this on their 'to do' list</i></p>
<p><i>Providing student group/set information to academic staff</i></p> <p>Some schools report that they would like a more automated approach to this</p>	<p>ITS reports: <i>agreed</i>: we need to investigate a permanent solution to the groups issue so that academic staff can get their groups from S+ rather than rely on administrators to provide them.</p> <p>Scientia reports that there is value in exploring with users requirements and the several methods available to present group-level timetables and student lists to find the best fit.</p> <p>Update at 27-11-13: <i>TWG has noted that the reporting package has yet to be provided by Scientia. This will be followed up by ITS under the contract management.</i></p>
<p><i>Allocation of students to groups where there is a 30cp and 15cp version of the module</i></p> <p>School/institute admin staff Report several issues that make allocating students to modules where there are an A and B version, where one of the modules is 30 credit points and runs over two semesters whereas the other is 15 credit points and one semester.</p>	<p>Scientia reports that Syllabus Plus has the capacity to represent complex curriculum and student relationships, including module delivery patterns and classes shared by multiple modules. When this is structured accurately, the allocation of students is straightforward.</p> <p>Users will receive advanced training around activity template structure, creating, editing and maintaining activity templates and generating activities from templates.</p> <p>Update at 27-11-13: <i>this needs further consideration in the context of training and support for the system</i></p>
<p><i>Training</i></p> <p>School/institute staff would like to receive more training and further ongoing training and support post-project.</p>	<p>ARCS is currently looking at what we need to put in place to ensure the Timetabling Team is equipped to support school/institute staff once the project is ended.</p> <p>Update at 27-11-13: <i>This has also been raised at TWG – we have yet to resolve this fully. The KPMG report is awaited as it is expected that it will comment on this point for the future.</i></p>

<p><i>Availability of rooms</i></p> <p>Some Schools/institutes have complained about problems with the availability of rooms.</p>	<p>Update at 27-11-13: the TT Team have liaised closely with relevant schools and institutes however QM is constrained by its available space</p>
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Aspiration log

The aspiration log was developed to capture the suggestions of what might be possible and desired in the future.

Aspiration	What's needed to achieve it
<p>For students to be able to book space for private study when it is not timetabled – this applies to rooms that are currently designated as centrally managed or locally managed.</p>	<p>Students would need to be able to view room availability, for all rooms, not just central rooms, and search for vacant rooms.</p> <p>Students would need to be able to book the room and would need to specify a clear purpose – we may need to look at policies such as making this facility available only for study.</p> <p>It may be that a pilot with PGT and PGR should be conducted first.</p>
<p>Look to timetabling in a way that puts students at the centre of the TT and provides them with logical timetables.</p>	<p>This might be achievable when the software is bedded in and QM is more familiar with its use. Relevant parameters might be set and timetables created by autoschedule (a bit like the exam timetable is).</p>
<p>Enable staff to click on student groups to see group members.</p>	<p>To be discussed with ITS</p>
<p>Enable the export of student groups to QMPlus (possibly CSV in the first instance if a direct feed is not possible).</p>	