

CREATING A STUDENT-CENTRED
ONLINE LEARNING ENVIRONMENT
FOR REPORT WRITING IN THE
SCIENCES AND ENGINEERING

<http://www.usyd.edu.au/learningcentre/wrise/>

Final Report for ALTC Project
August 2009



The University of Sydney



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

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Executive summary

This project, **Creating a student centred online learning environment for report writing in the sciences and engineering**, was funded by the ALTC to develop, implement and disseminate an online learning environment, the **WRiSE** site, to improve student writing in discipline areas where traditionally students are known to struggle with their writing. In addition, although these resources were created to meet the report writing needs of all students, they also include learning materials to address the needs of a diverse student body, in particular, in the area of language use.

The project aimed to create an integrated, freely available, student centred, cross-disciplinary, cross-campus online learning environment, the **WRiSE** site, that supports learning of report writing by undergraduate students in engineering and science. The **WRiSE** site presents learning resources organized into nine discipline modules (*Biology, Molecular Biology year 2 and year 3, Chemistry, Microbiology, Physiology, Chemical Engineering, Civil Engineering, Mining Engineering*).

The **key deliverables** are the two main spaces on the site for each discipline area:

- *Help with Report Writing*: the report writing information space (**RWI space**):
- *Help with Understanding Content*: the topic area space - (**TA space**)

The RWI space contains interactive explanations, example reports and exercises on the structure and language of each section of a typical report in the discipline. Example reports and exercises are based on authentic student writing. Lecturers and students provide audio commentary at appropriate stages in the modules.

The TA space contains exercises on the content of a particular report students are writing or general concepts in the discipline. This part of the site can be added to by discipline lecturers using a software program, Question Tools (<http://www.questiontools.com/>).

The project was a collaboration across two institutions: the University of Sydney, who were responsible for project management, design of website content in 7 discipline areas, technical design, programming and design of evaluation procedures; and the University of New South Wales, responsible for content development in 2 discipline areas.

The website delivers several outcomes as planned in the original project proposal and reported in the project evaluation:

- improved understanding and confidence in report writing
- improved understanding and confidence in understanding discipline content related to report writing
- improved report writing performance

A further important outcome is that the website design has allowed students to access modules across the disciplines they are studying in and in this way, enhance their awareness of how knowledge is communicated in different disciplines. In the long term, improved writing skills and understanding of how language is shaped to meet the needs of different audiences and purposes will allow students to graduate with competencies that meet the needs of employers.

Outcomes for the project team include the exchange of knowledge and skills among team members, the development of competencies in the area of elearning, the creation of collegial links across and within institutions and an ongoing commitment and interest in developing

learning resources to improve students' written communication.

The project team brought together a range of experience and knowledge to contribute to the development of the online learning environment. Subject area specialists from the nine discipline areas created content to support student understanding of concepts in their discipline and language and learning specialists created content to help with understanding the structure and language of reports in these disciplines. Students contributed their voices to the website to comment in particular on the process of report writing. Technical and elearning specialists transformed this content into interactive online learning materials brought together in a seamless online environment. This collaborative process followed a design, development, feedback cycle to ensure that the website was meeting the needs of students and staff.

Introduction

This project, **Creating a student centred online learning environment for report writing in the sciences and engineering**, was funded by the ALTC to develop, implement and disseminate an online learning environment, the **WRiSE** site, to improve student writing in discipline areas where traditionally students are often described as reluctant writers. Science and engineering students often struggle with written assessment tasks; many have elected to study these disciplines precisely because they perceive them as relatively 'writing free'. However, academics and employers require highly developed written communication skills in students and graduates. Deficiencies in this area are of ongoing concern in the science and engineering professions. The **WRiSE** site is a strategic way to address today's increasingly diverse student body, as students will access it according to their varied needs. In addition, **WRiSE** offers student writers new ways of engaging in writing tasks which will enhance and make explicit their awareness of writing. For subject specialists, who are often ill-equipped to teach writing skills, the site provides new opportunities for communicating with their students and support them in devising contextualized, guided writing tasks that allow for a developmental approach to writing.

The project was a collaboration across two institutions: the University of Sydney, who were responsible for project management, design of website content in 7 discipline areas (*Biology, Molecular Biology Yr 2, Molecular Biology Yr 3, Chemical Engineering, Physiology, Chemical Engineering and Civil Engineering*) technical design, programming and design of evaluation procedures; and the University of New South Wales, responsible for content development in 2 discipline areas (*Microbiology and Mining Engineering*).

1.0 Project aims and outcomes

The project aims to create an integrated, freely available, student centred, cross-disciplinary, cross-campus online learning environment, the **WRiSE** site, that supports learning of report writing by undergraduate students in disciplines in engineering and science. Specifically, the site aims to enhance student learning of the varying purposes, content, structure and language of the report across disciplines in science and engineering and to increase student awareness of report writing processes and requirements in a range of disciplines by presenting student and staff insights of writing in that context.

The **key deliverables** are the two main spaces on the site:

- *Help with Report Writing*: the report writing information space (**RWI space**);
- *Help with Understanding Content*: the topic area space - (**TA space**) (Appendix 1)

The key planned outcomes of the project are:

- improved student and graduate written communication skills which will meet the needs of employers and provide graduates with enhanced career opportunities;
- enhanced student awareness of the differences and similarities in report writing across disciplines, leading to improved transfer of learning from subject to subject;
- development of staff competencies, knowledge and skills in the design and development of online learning environments;

- development of staff competencies in evaluation practices;
- advancement of research in the area of eLearning;
- dissemination of research and best practice in the creation of student centred, online learning environments;
- clearer capacity for lifelong learning in the area of written communication through increased awareness of how writing varies according to context and purpose.

Evaluation data presented later in this report will discuss the extent to which these outcomes have been achieved.

1.1 *Help with Report Writing: 3 areas of the RWI space*

- The first area focuses on the report as a textual product and makes explicit the content, structure and language of the report in each of the particular disciplines through highlighted and annotated examples of student reports, interactive and animated explanations, interactive quizzes and exercises with feedback.
- The second area provides a student's perspective on the process of writing a specific report through an edited audio interview with a volunteer student. Interviews are from a selection of discipline areas to clarify the specific requirements of each.
- The third area provides the lecturer's perspective on the student's report from that discipline area and also more details on the expectations about writing in the discipline.

1.2 *Help with Understanding Content: The TA space*

This space is for lecturers to upload information and create interactive exercises on a particular assignment topic. They can refer students to this space and further recommend other areas in the report writing space for them to visit. In this way, the site has been customized to specific contexts and specific assessment tasks and feedback on these tasks.

2.0 Approach and Methodology

The design of WRiSE was developed through collaboration among all stakeholders – specialists in language and academic skills from the Universities of Sydney and NSW, subject specialists and students from both institutions and eLearning developers from the University of Sydney. Design has built on the team members' wide knowledge of research into computer-based learning, linguistic and ethnographic research into report writing in engineering and science, and pedagogical research and practice in the teaching of report writing. A student/user-centred approach was emphasized throughout in the design process and in the design itself. Overall, the project followed a rigorous management plan with defined milestones for project deliverables and a spiral/feedback approach to design and development.

The methodology consisted of 2 main phases involving administration, collection and analysis of sample student reports, content development and design, technical development, implementation and evaluation. Key activities covered:

- Design of overall WRiSE concept
- Re-design and evaluation of existing online report writing modules (Biology, Molecular Biology Yr 2, Molecular Biology Yr 3, Chemical Engineering, Physiology)
- Development and design of content for new interactive modules (Civil Engineering, Chemistry, Mining Engineering, Microbiology)
- Technical design of new interactive modules in the **RWI space**: *Help with Report Writing* and in the **TA space**: *Help with Understanding Content*
- Trial and evaluation of WRiSE with student user group and discipline lecturers
- Curriculum implementation and evaluation of WRiSE in targeted discipline areas
- Promotion and dissemination of WRiSE

2.1 Phase 1: December 2006 - December 2007

Administration

During the first 3 months of the project, the team established a cross-institutional management steering group and agreed on lines of communication among team members, meeting procedures, funding procedures and evaluation procedures so that the deliverables could be provided at the agreed milestones. At the same time, ethics approval was obtained by the Learning Centres (LCs) of both universities in order to collect current examples of student reports from the targeted disciplines and to interview and survey students. Ongoing meetings were held throughout the year and whole team meetings were held in February and November, 2007. A monthly project planning document was created so that milestones could be broken down into stages and their progress monitored.

Content development and design

During the first 6 months, the existing report writing modules were reviewed. These were accessed from existing websites at the University of Sydney. The review involved appraisal of their design features in the light of recent research in computer-based learning and examination of their evaluation data. Based on this review, a prototype design was chosen for the modules and for the site as a whole. In semesters 1 and 2, 2007, Learning Centre staff from both universities collected examples of students' reports in the new discipline areas and began the linguistic analysis of these texts. During this process they identified a typical report structure (Introduction, Methods, Results, Discussion) and features of language use such as use of tense, topic sentences and cohesion in paragraphs, the language of evaluation in the Discussion. The development and design of content for report modules for the RWI space continued into 2008. Subject area specialists at both universities were trained to use Question Tools software (<http://www.questiontools.com/>) to create the TA space based on the concepts students needed to understand for the specific report they had to write for the trial of the site or more generally, concepts crucial to understanding research approaches in the discipline. Learning Centre staff across both institutions began interviewing discipline lecturers and students for the audio parts of the RWI and this continued into 2008.

Technical development

In the first 3 months of Phase 1, eLearning developers, in collaboration with team members, proposed a concept design for WRiSE and provided a detailed scoping of the project. Throughout Phase 1, the technical team re-designed the current report writing modules and supported discipline staff in the development of TA spaces for these modules. In addition, as

the content materials for the new report writing modules were completed, the technical team began creating them online.

Evaluation

Learning Centre staff from the University of Sydney designed evaluation procedures and selected small numbers of student user volunteers for the evaluation of the prototype site as it was being built.

2.2 Phase 2: January 2008 - July 2009

Administration

Across both universities, frequent meetings and online communication took place during this stage of the project as the cycle of content development and design progressed with discipline lecturers giving feedback on the content of the RWI for their discipline to Learning Centre staff. Learning Centre staff from the University of Sydney in turn liaised with the technical team as the modules were programmed. In addition, the technical team supported discipline lecturers in the development of TA modules. Procedures for introducing WRiSE to students in the target disciplines were developed by Learning Centre staff and subject area specialists. These were to show students that the site is highly relevant to their course curriculum and assessment and in this way motivate them to use it. Whole team meetings were held in November 2008 and February 2009. A Reference Group meeting was also held in November 2008.

Content development and design

The cycle of content development, design and feedback continued throughout this phase with the last module, Civil Engineering, uploaded to the site in January 2009. In addition, audio interview recordings were edited and integrated into the site. The graphic interface for the home page and module welcome pages were designed, together with staff and student guidelines for using the site.

Implementation, evaluation and promotion

Learning Centre staff at the University of Sydney in collaboration with discipline lecturers and a research assistant designed evaluation procedures for the full implementation of WRiSE in Semester 1, 2009. WRiSE was successfully implemented in all discipline areas but one in Semester 1. The Civil Engineering module will be implemented in semester 2, 2009 when the relevant course unit will be taught. Evaluation data were collected, analysed and reported on by the research assistant. Systems for tracking use of the site were put in place and initial data on site usage has been processed. Promotional postcards have been designed in both online and hard copy and are available for distribution at launch and dissemination events.

3.0 Enhancement of existing knowledge

3.1 Language and learning theory underlying the project

This project was informed by a model of learning which emphasizes the students' prior learning, their perception of the learning goals and their motivation and interaction with the learning materials and environment. It is complemented by a teaching approach that allows students to engage in an interaction with the educational media, (Prosser and Trigwell 1999; Laurillard 2002). This interaction needs to be supported by more explicit guidance and structuring of tasks for effective learning to take place.

The theoretical model of language adopted here was based on Systemic Functional Linguistics (Halliday 1985; Martin 1992) and a “genre-based” approach to writing pedagogy, which emphasizes the influence of the context and social purpose on text structures, rather than decontextualized “rules”. From this theoretical base, the analysis of student reports was used to create report writing teaching materials and exercises for online delivery. Such an approach has been successfully used to teaching writing in face-to-face situations at all levels of education and has recently been adapted to online learning environments at university level (Clerehan et al 2003, Drury 2004, Drury et al (2005), Drury et al (2006). This project has contributed to the understanding of report genres in science and engineering disciplines and through its innovative approach, to the pedagogy of teaching report writing online.

3.2 Enhancement of current practice

In Australia, most university-based learning centres have begun to provide online materials to support the development of students’ language and learning in a flexible and accessible way. This has many advantages for students who cannot always access face-to face classes because of other commitments. However, many of these materials remain online versions of print based materials (for example, Winckel et al, 2002). Although they offer sound advice and guidelines, they do not allow students to actively engage with the learning program through exercises, nor can they give feedback.

More recent online programs do offer a degree of interactivity using the computer-based medium to provide on-screen examples and exercises that target report writing (http://www.dlsweb.rmit.edu.au/lsu/content/2_AssessmentTasks/assess_tuts/reports_LL/index.html and <http://unilearning.uow.edu.au/main.html>). Other programs such as the recently launched Write Site at Sydney University, <http://writesite.elearn.usyd.edu.au/>, provide examples and exercises for students writing in the humanities and social sciences or address writing related issues such as avoiding plagiarism <http://www.lc.unsw.edu.au/plagiarism/index.html>.

However, although these programs use authentic examples from a variety of disciplines, they are not situated within a specific disciplinary course curriculum and therefore the programs remain largely generic in their approach. Programs that come closer to targeting a specific discipline context are those developed by the Monash Transition to Tertiary Writing Project where the assessment tasks for specific first year courses in the humanities and social sciences form the basis of the writing modules which also include staff and student commentary on a specific essay assignment (Clerehan et al, 2003). These modules are also based on a sound theory of language in use. However, they do not target students in science and engineering nor do they provide resources to take students beyond first year and finally, they do not provide customisable content support that targets a specific assignment in a specific discipline.

Thus, many online programs which aim to support the development of students’ academic literacy skills are not discipline sensitive, nor are they fully integrated into the curriculum. Many are still largely advice and guidelines of what is expected in producing a particular academic genre and offer few activities and exercises. Other programs do not have a sound theoretical basis which provides an overall conceptual and theoretical framework for learning *about* language, and learning *through* language. This means that although they contain language activities, the activities are often decontextualized and so do not improve understanding of how and why language is used in a particular way. The WRiSE site has attempted to overcome some of these issues by providing a discipline specific online learning environment which is supported by academic staff and can be embedded into the students’ course.

4.0 Factors contributing to success of the Project and approach

Many factors have contributed to the success of the project. These include strong project management with regular meetings and communication, the creation of a productive team, the combined expertise of Learning Centre staff, technical staff and discipline staff and the willingness to share this expertise.

The project has successfully harnessed the power of new online, multimedia technologies in ways that directly engage the increasingly diverse body of students in our universities. The project will maximize impact across the higher education sector through the creation of this freely available online resource to address an essential graduate attribute: written communication.

4.1 Factors inhibiting success of the Project

There were no factors inhibiting the overall success of the Project. However, progress was delayed in 2007 due to changes in discipline staff and illness of a key project member.

In 2008, the courses that were targeted for integration into the WRiSE site were held in Semester 1 of the university year and not in Semester 2, with the exception of Civil Engineering. This was not taken into account in the creation of the original milestones and in the implementation and evaluation plan for the project. Clearly, if the courses were not running in Semester 2, 2008, the implementation and evaluation of the site in Semester 2, 2008 was not feasible. Although evaluation of individual modules by both students and staff was carried out in Semester 2, 2008 and during the development phase of the project, evaluation of the whole site was not possible within the 2-year project timeframe.

5.0 Implementation of approach/outcomes across institutions

WRiSE is designed to be used in any university and is freely available online. Comprehensive student and staff guides have been prepared to assist both groups in the effective use of the site. International interest has come from the UK, Canada, New Zealand, China, Argentina, the USA, Malaysia and Brunei.

6.0 Sharing of Project outcomes

Project outcomes will be shared with different groups. The site was introduced to members of the NSW branch of the AALL (Association for Academic Language and Learning) in December 2008. It was launched at the University of NSW in July, 2009; and will be launched at various forums: at the Sydney Systemic Functional Linguistics forum in August, 2009; a Teaching and Learning forum at the University of Sydney in 2009; at the UniServe Science conference, University of Sydney, 30 September-2 October, 2009 and the AALL conference, University of Queensland, Brisbane, 26-27 November, 2009. A hard copy and epostcard have been prepared to promote the site through distribution at the above events. (Appendix 2)

Project outcomes will also be shared on the ALTC website. Publications are being planned for journals such as *Journal of Science Education*, *International Journal of Engineering Education*, *HERD*, *Higher Education*, *English for Specific Purposes*, *Journal of English for Academic Purposes*.

7.0 Links between this Project and other ALTC Strategic Priority Area Projects

The outcomes of the project contribute to the ALTC program priorities, particularly in the areas of:

- Innovation in learning and teaching, including in relation to the role of new technologies
- Strategic approaches to learning and teaching that address the increasing diversity of the student body.

A number of the funded projects in 2007 are relevant to this project, although they are not reported as yet on the ALTC site. They include:

- *A cross-disciplinary approach to language support for first year students in the science disciplines*: University of Canberra: Felicia Zhang. Project completion: December 2009
- *A programmatic approach to developing scientific writing embedded in BSc courses*: University of Queensland: Roger Moni. Fellowship completion: mid 2009
- *Curriculum development and assessment to enhance communication skills for veterinary students*: Murdoch University: Jennifer Mills. Project completion: September 2009

The site would also be a useful resource to add to the website www.bioassess.edu.au, which was produced as part of the project *Enhancing the Assessment of Learning in Australian Higher Education: Biological Sciences*: The University of Melbourne, Centre for the Study of Higher Education: Kerri-Lee Krause and University of Sydney: Mary Peat and Charlotte Taylor

In terms of the development of graduate attributes in science and engineering, our project provides a key resource to support written communication and in this way aligns with the National Graduate Attributes Project (GAP), 2009.

Like the project, *Physclips: multi-level, multi-media resources for teaching first year university physics* (University of New South Wales: George Hatsidimitris and Joe Wolfe, 2007) and *Physclips 11* (University of New South Wales: Joe Wolfe, 2010) our project outcome is an interactive online learning environment which uses animation and other innovative computer-based learning approaches to support learning of both content and skills in science and engineering

8.0 Project Evaluation, Outcomes and Concluding Remarks

8.1 Project Evaluation

An extensive evaluation of the WRiSE site was carried out across both institutions in semester 1, 2009 using questionnaires and focus groups (1 in University of Sydney and 1 in UNSW). Numbers in the focus groups were very small (< 5) but the comments were useful. Both students and staff and all disciplines were surveyed. Tracking data were also collected.

Tracking data showed strong site usage over first semester with approximately 1000 unique visitors and 60,000 pages/screens viewed. Visitors peaked in mid May reflecting due dates for report assignments.

Of the **417** students who completed questionnaires in both institutions, **242** (58%) used the site – 170 (University of Sydney) and 72 (UNSW).

Those participants who used the site were asked to complete an extended questionnaire that assessed their usage of the site, their evaluation of the user-interface, and the perceived effect that it had on their report writing skills. The majority of users had an in depth approach to using the site, visiting it on a number of occasions and spending at least an hour on the site. Overall, they rated WRiSE highly in all areas. They reported improved understanding of the structure and language of reports through their interactions with the site and increased confidence in their report writing skills. In addition, their understanding of content in their discipline improved as well as their confidence in knowing what content to put in their report.

More specifically, participants were asked to evaluate each module: Help with Report Writing and Help with Content. First, they were first asked to evaluate the effect of the Help with Report Writing module on their report writing skills on twelve items using a likert scale that ranged from 1, which indicated “Strongly agree”, to 5, which indicated “Strongly disagree”. Overall, participants agreed that the diagrams, animations, example reports, exercises and feedback on exercises helped them to understand the report structure. They agreed that it helped them understand the kinds of language appropriate for a report, that they were now more confident that they understand the structure of a report and scientific language. Furthermore, they agreed that the example report helped them understand how to write a report, and that the student and staff audio extracts also helped in their understanding. Overall, these results indicate that participants thought that the Help with Report Writing module had a positive impact on their report writing skills.

Next, participants were asked to evaluate the effect of the Help with Understand Content module on their report writing skills on four items using a likert scale that ranged from 1, which indicated “Strongly agree”, to 5, which indicated “Strongly disagree”. The results indicate that participants agreed that the feedback on the exercises helped them understand the correct answer, helped them identify what content and is necessary for their report, and that they are now more confident about what content to put in their report. Overall, these results indicate that participants thought that the Help with Understanding Content module had a positive impact on their report

Of the 42% who did not use the site, most reported that they did not know about it. This is despite the fact that it was strongly promoted by discipline staff during the implementation stage of this project. It may be the case that students are overwhelmed with ‘resources’ as one lecturer in the project commented.

‘Students are faced with a huge range of materials, each for specific purposes without clear guidelines as to which should be used for what purpose. I think we need better integration of all learning resources. I suspect we now have too many digital resources for the unit. Thus I need to develop a guide to resources, including the WRiSE site’.

In general, users and non-users did not differ in terms of demographic characteristics, language background, confidence in writing, past writing experience and skill in writing different parts of a report. However, the user group tended to have written longer academic texts than the non-users.

The staff survey was sent to all 14 discipline lecturers (10 in University of Sydney and 4 at

UNSW) and 4 responses were received. Throughout the project, however, discipline staff were providing ongoing informal feedback on the design and content of the report writing modules. Staff were surveyed on the project processes and outcomes, sustainability and lessons learned. The responses indicated that most staff were satisfied with the project processes and outcomes both for their students and for themselves. Their comments reinforced this view:

'I feel we definitely have a well-designed pedagogically sound website. Informal feedback from PhD demonstrators who mark the reports indicate meaningful improvements in student report writing skills. In response to the question "Have you noticed an improvement in student lab reports?", their comments include "Yes !!! by far"'

'There has been some significant improvements in student report writing in some areas particularly in the area of report structure and writing style'

Staff also commented on the development of new working relationships and collaborative links across and within Universities.

8.2 Project Outcomes

However, despite this favourable evaluation of WRiSE, the most important question is whether it makes a difference to performance as measured by report marks. In general, users gained better marks than non-users, although differences were not significant except in one instance, Molecular Biology, 2nd year. However, when marks were pooled across disciplines, on average, report marks of those who used the website were significantly higher than those who did not ($t(323) = -2.96, p = .01$). Therefore it appears that using the website had a consistent positive impact on report marks across different disciplines. However, since the user group tended to have written longer academic texts compared to non users, further statistical analysis was carried out to control for this variable. This analysis upheld the conclusion that using the website helped students to improve their report marks.

Project outcomes for the team included sharing of expertise, knowledge and skills and creation of collegial links across and within institutions. Team members are committed to disseminating WRiSE within their departments/schools and faculties so that other students can gain the benefit of using the web site. In the longer term, team members are planning further developments to WRiSE by involving discipline colleagues in adding to the *Help with Understanding Content* part of the site and by gaining funding for additions to the site.

8.3 Concluding remarks

This project has been highly successful on a local level within the institutions of the project team. However, it is important that this success is translated to national and international level and to this end the ALTC may consider the following recommendations to support the project team in dissemination strategies:

- give prominence to the WRiSE website on the ALTC website
- generate publicity for the WRiSE website on the ALTC website
- support and reward team based approaches involving discipline lecturers, language and learning specialists and elearning specialists to develop innovative curriculum initiatives to improve graduate attributes, particularly in the area of written communication
- encourage scholarly research to provide evidence of the effectiveness of these initiatives.

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Appendix 1

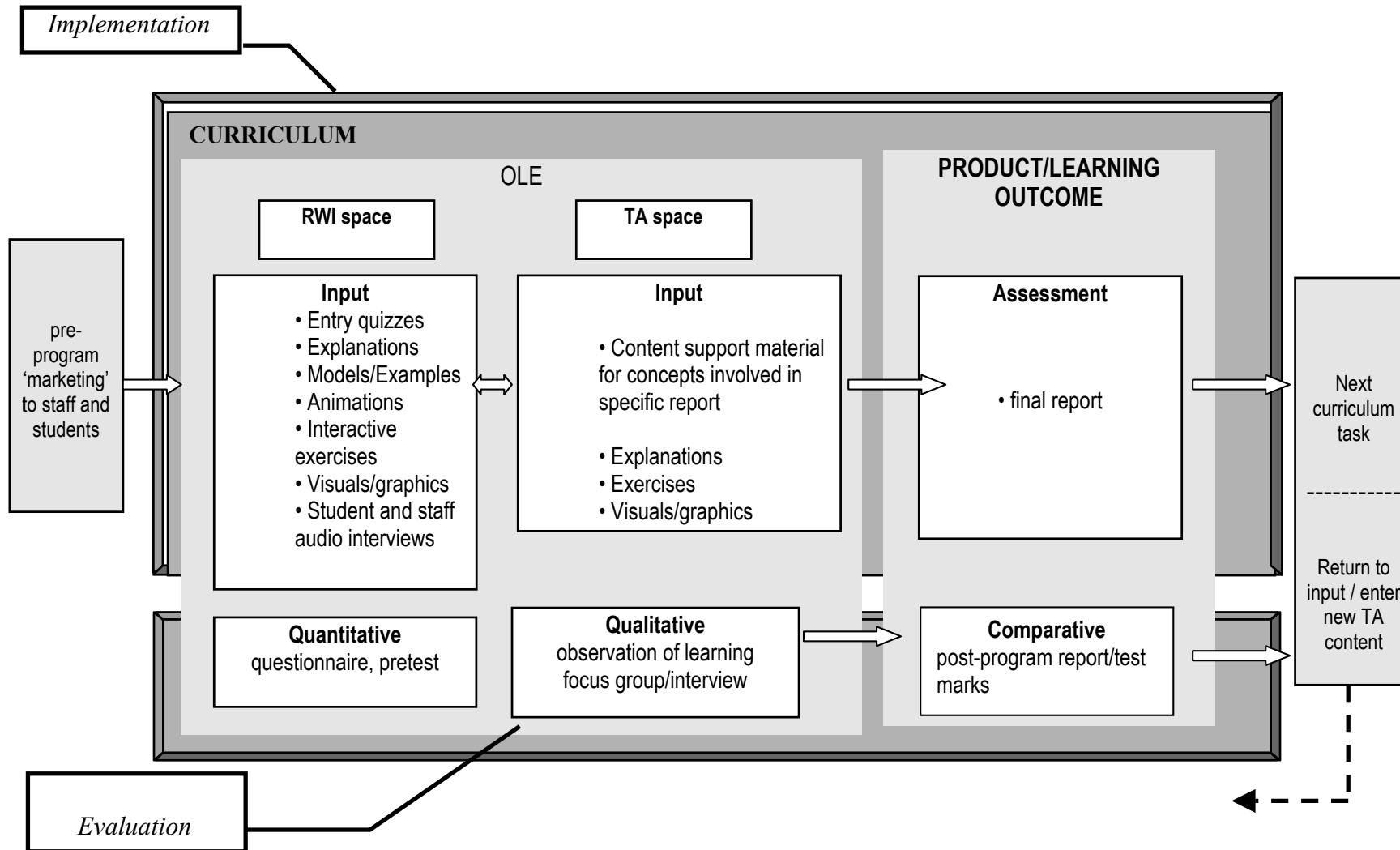


Figure 1: Model of the WRiSE site, integration into the curriculum and evaluation strategies

Appendix 2



WRiSE

:: WRITE REPORTS IN SCIENCE AND ENGINEERING

 MOLECULAR BIOLOGY YR 2	 CHEMISTRY	 CIVIL ENGINEERING
 MOLECULAR BIOLOGY YR 3	 MICROBIOLOGY	 MINING ENGINEERING
 BIOLOGY	 CHEMICAL ENGINEERING	 PHYSIOLOGY

 The University of Sydney

 AUSTRALIAN LEARNING & TEACHING COUNCIL

 UNSW
THE UNIVERSITY OF NEW SOUTH WALES

www.usyd.edu.au/learningcentre/wrise

IF YOUR LECTURERS SAY:

- ▷ *your report doesn't flow*
- ▷ *what is your aim?*
- ▷ *interpret your results*
- ▷ *use scientific language*
- ▷ *where is your evidence?*
- ▷ *what is your argument?*

THEN THE **WRiSE** SITE WILL HELP YOU TO DEVELOP YOUR REPORT WRITING SKILLS.

FOR STUDENTS:

- ▷ See explanations and examples of reports in different disciplines
- ▷ Do interactive exercises on the language and structure of reports
- ▷ Listen to tips for success from students and staff
- ▷ Check your understanding of concepts behind report topics

FOR STAFF:

- ▷ Embed **WRiSE** in the students' curriculum
- ▷ Direct students to the **WRiSE** site to improve their report writing



PROMOTING EXCELLENCE IN REPORT WRITING www.usyd.edu.au/learningcentre/wrise