PACIFIC PEOPLES' RESEARCH SKILLS

Lifting the research capacity of the peoples of the Pacific through research skill development.

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List of Abstracts

1. Mapping RSD-informed marking criteria to USP Graduate Outcomes in undergraduate courses

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The Research Skill Development (RSD) framework was implemented at The University of the South Pacific (USP) in 2012 after a recommendation by Working Group 5 of the University's Strategic Total Academic Review (STAR) project. The working group's report to the USP Senior Management team highlighted the overlap between the RSD framework and the USP Graduate Outcomes (GOs). Since implementation, 78 known undergraduate courses developed RSD-informed marking criteria for specific course assessments. In 2017, the criteria for the GOs have been revised in consultation with the three faculties to ensure clarity and consistency in language, developmental progression across the undergraduate levels, and feasibility of being assessed.

This presentation focuses on a study that used a qualitative content analysis approach to identify whether RSD informed marking rubrics also assess the revised criteria of USP GOs. Ten rubrics were selected from the RSD Moodle page. A stratified sampling technique was used to randomly select two RSD informed rubrics from each faculty, and the four compulsory undergraduate courses (UU100, UU114, UU200, and UU204) were also included in the sample. A descriptive design was adopted and the criteria for each of the seven USP GOs were used as the coding categories. The frequency of occurrence of these categories in the assessment descriptors of the selected RSD informed rubrics were recorded. Our findings indicate that the selected RSD informed rubrics can be used to assess the revised USP GOs.

2. Trajectory from selling Crabs to being a Community Leader: Case of a Mature Student

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The Diploma in Leadership, Governance and Human Rights (DLGHR) programme was initiated in 2013 and this presentation will focus on a particular student who joined the DLGHR programme in 2015 as a part time, mature and working student. The Research Skill Development (RSD) framework is utilized consistently in all five core DLGHR courses and it culminates into significant and independent research late in the program in the Leadership, Governance and Human Rights Internship course (LGHRI). The LGHRI course is a research focused internship course with assessments including a research proposal, a literature review, a practical SPSS analysis, an exit interview, the final research report, as well as a presentation of their draft research findings in front the class and their internship supervisors. Through different RSD-informed rubrics for the assignments LGHRI course students were tested on all the facets of the RSD. The level of autonomy for the assessment tasks fell between scaffolded (the minimum standard at USP for 300-Level courses) and open-ended research, as students are allowed to identify any topic that falls within the boundaries of leadership, good governance and human rights and that is relevant to their internship organization. After their extended, sophisticated and pertinent research, students' reports are typically used in a practical manner by these organisations.

Apisai Samu (pseudonym), the student of focus in this study had only completed up to Class 6 education and was fishing and selling crabs for his daily source of income prior to commencing at USP through the mature student category. Apisai Samu was 54 years old on enrolment and is an outstanding example of how research skill development can enhance the education of Pacific Island peoples. Into his third year his GPA stood at 3.05 and he received an A grade in LGHRI course in Semester II of 2016. This particular student researched on the issue of 'The integration of ex-prisoners in Rewa' and was able to generate a credible research report that was later presented to the Rewa Provincial Council meeting at the end of 2016. The findings are being integrated into REWACARE, an NGO that is set up to assist ex-prisoners from the Rewa Province in Fiji.

3. Introduction of the RSD framework and its effects in enhancing the legal research skills of students

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Research is a crucial part of learning and used in finding out more about a topic or issue and to have a better understanding of the subject matter. Law courses are no exception as most of the legal issues are only effectively addressed through research of a particular law and how it applies in the jurisdiction. Research Skill Development (RSD) Framework was introduced into the Torts 1 course Semester 1, 2007. Torts course tries to teach students areas of the law in relation to trespass against a person, the law of negligence and the various types of claims a person may be able to bring under the tort of negligence and various other civil liability aspects. These laws in relation to negligence are usually not found in the legislation of a country as they have developed over time through various cases known as precedents and these precedents are generally followed when deciding new cases.

The law relating to trespass against a person involves acts such as assault, battery and false imprisonment and these are very common in our Pacific societies. Battery can occur during sporting activities such as rugby which is a very common sport for the Pacific islanders, so the rights a person has in relation to bringing an action against the trespasser is important. Similarly, the law of negligence is highly relevant to the Pacific societies. A very common example is holding employers liable in an accident case where the driver of the vehicle was just an employee; if skills to conduct these research are not taught to the Pacific island students, many such affected parties may not get compensated for the wrongs or negligent acts committed against them.

In order to understand these legal principles, it is necessary that students knows how to find and analyse a case, and apply it to a given fact scenario. In this presentation, I will address the introduction of RSD Framework into the course, the new components it added to the assessments of the course, what it required students to do and how it contributed to better research skill development of students. I will conclude with how the RSD framework worked out for the Torts course, what other areas of assessment it can be utilised in, its advantages and disadvantages for legal research and how its implementation can be improved in the Torts course for next year.

4. Evolution of Undergraduate Chemistry Courses

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All aspects of science have research skills embedded in them, sometimes in ways that are subtle. After the integration of the Research Skill Development (RSD) framework into its curriculum, chemistry courses in the School of Biological and Chemical Sciences (SBCS) had more visible and defined research skills. All course coordinators and the teaching team in the SBCS- Chemistry section developed rubrics with the inclusion of aspects that would enhance the existing research skills. This involved organising the marking criteria into rubrics framed by the RSD and modifying questions to encourage inquiry-based learning. A series of RSD workshops over the years have helped modify the rubrics for each chemistry course and later developed the overall curriculum map for chemistry courses.

The research skills were re-organized in the laboratory exercises, including the pre-lab and post-lab questions and assignments to suit the learning outcomes of the course further enhancing the defined research skills. The newly designed rubrics were explained in detail to students and the expectations were listed before, during and after each laboratory class. Since 2016, the rubrics for the laboratory exercise are explained to all first year students, but not to subsequent years. A number of aspects to enhance RSD are taken into account and included in the current assessment in the overall chemistry courses. These are:

1. **Mentoring** of students by senior academic/experienced staff during lab classes to facilitate guided development of important research skills.
2. **Communication skills** such as writing of lab reports were enhanced. The first of a minimum of eight written reports are corrected and questions asked to guide subsequent improvement.
3. **Introduction of ICT skills** included the use of chemical software to determine the properties and structure of molecules and for writing the mechanisms for the reactions at third year level.
4. **Variety in assessment tasks** was introduced in some courses such as video making and laboratory tests which incorporates knowledge generated by others, application to South Pacific context, identification of problems, and providing possible solutions to the problems.

Overall, students understand the rubrics and are showing creativity, originality and better communication skill. The performance in various assessments have increased, thus increasing the overall performance in assessments.

5. *RSD, the Pacific Way*

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Weaving is not only an art that is significant to the People of the Pacific, but it is a figurative term that might have different connotations for Pacific People. In the search to enhance research skills and knowledge at Higher Education level, academics and students alike are at the juncture of finding a framework that best represent Pacific Research Skills. The UU204 Pacific Worlds - I Talitali Team has embarked on a project that captures Research Skills Development (RSD) as a weaving metaphor. This metaphor situates itself as a basis out of which knowledge, skills and research values are built. It outlines the various steps, methods and analysis of how to set parameters for a Pacific Research Framework. The audience will be taken through the basic essence of Pacific Research Framework through the Weaving/'Talitali' metaphor that the Pacific Worlds teaching staff of USP has embarked on!

Drawing on the weaving metaphor, we aim to use a common item in many Pacific cultures which is the mat. To sit on a mat represents preparation for learning. Thus while our student are seated on the mat, we then take them on a journey from harvesting the raw materials to the finished product which is the mat itself. This is the approach that we are proposing towards *Pacific Research Skills Development* (PRSD).

i Talitali- An Itaukei term for Weaving. This is also the name that is given to this UU204 Teaching Staff who will be "team-presenting" this framework

6. Building Research Skills in Foundation Accounting

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The Foundation Accounting courses (AFF01 and AFF02) each semester develop 600 students' learning and research skills in Accounting at a basic level, enabling them to progress to undergraduate studies at USP. The course assessments are researched-based and incorporate the six facets of the RSD framework at the prescribed level. The framework captures a broader level of skills than previously, when the accounting assessments were limited to assessing content only and some aspects of problem solving. The marking rubric incorporating the RSD makes the assessment more transparent, consistent and provides direction for the required task. The assessment required the students to carry out company-specific research that is guided by the RSD-informed rubric. The facets of research were introduced to the students, linking it with the assessment task with detailed explanation before the task was carried out.

These research skills are evident when students successfully complete the task and continue to carry out research tasks in Semester 2 with less assistance. The Foundation Accounting students gain confidence in advance of 100 level Accounting assessments through the RSD incorporated assignments. Additionally, the RSD framing makes marking easier and consistent with a team of markers.

This type of assessment is new and challenging for foundation students as the high school assessments are 100% summative and content driven with limited development of other skills. The Foundation assessments include both formative and summative assessment. The prescribed level of instructions together with the rubrics enabled students to carry out the task with certainty, and seems to increase their confidence in accomplishing the task. Students see these formative assessments as upskilling and are able to connect to the learning of content.

In summary, the usage of this RSD framework has provided a change to the types of assessments in Accounting which really introduces students to research skills. The six facets provide a holistic approach to learning and assessment in terms of building research skills. The prescription of each facet with clear marking rubrics gives direction and makes students' assessment transparent.

7. Triple loop learning: Going beyond feedback.

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The University of the South Pacific (USP) has implemented the Research Skills Development (RSD) framework into its curriculum to develop research skills of students from undergraduate to postgraduate levels. Implementation of the six facets of the RSD framework typically takes the form of teacher-led learning where feedbacks are maintained by the instructor. What we found missing in this RSD framework for postgraduate students in the professionally oriented Postgraduate Climate Change courses was the explicit recognition of the need for feedforward mechanisms essential for self-regulated learning and professional development.

This research aims to highlight the importance of pedagogy that explicitly incorporates feedforward within 'Triple-loop' learning to enhance students' research skills. The RSD Framework was used to report on the application of this pedagogical shift in the course, 'Environmental Impact Assessment and Strategic Environmental Assessment', made to explicitly incorporate self-regulated learning into the online course. Triple-loop learning effectively models the cultural learning processes within traditional and indigenous communities. To build on this strength with the region, so as to enhance effective integration of feedforward according to a Triple-loop learning model, weekly videos produced through student-peer, instructor-student and student-community dialogue were uploaded on Moodle in 2015. These served to complement the feedback provided by the RSD framework, to increase dialogue and innovation to enhance self-regulated learning. The self-regulatory process supported both teacher and student-led initiatives to carry out community-based research carried out through fieldwork for the course.

To gain an initial evaluation of the effectiveness of the incorporation of the Triple-loop learning model in the course PC425, an online pre-survey and post-survey was conducted on Moodle. A total of 21 students out of 34 students (62%) participated in the pre-survey while 16 students out of 30 students participated (53%) in the post-survey. There were 20 questions covering the six facets in the RSD framework. Improvements in research skills were indicated in all six facets. 65% (13) of the questions showed significant improvement ($P<0.05$). The research skills showing the greatest significant improvement covered critical engagement processes.

8. RSD, a Timesaving tool; my story

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Research skills are vital for educators. Through research, educators are able to find ways to improve teaching pedagogy and consequently improve students' academic performance. In the last seven years while training teachers at the School of Education at the University of the South Pacific, it was found that many students lack the skills needed for academic work. One of the reasons South Pacific students lacked research skills was that research consisted of only 10% of their course work therefore not much time was spent teaching and learning research skills. Also, not many teachers value this important skill and therefore do not teach it or practice it.

The RSD Framework was used in the Introduction to Curriculum Development (ICD) course in an attempt to systematically address this skill deficit. For the past two years it was found that the use of the RSD to guide the structure of ICD assignment rubrics did help students improve their research skills and allowed students to do well in their course. One reason for this is that the rubrics helped guide students to engage more deeply with the content of their course, and therefore they were able to understand and apply content appropriately and effectively in their practice and in exams. Moreover, from a teaching perspective, the RSD-informed rubrics also decreased the turnaround time for marking students' assignments, meaning faster feedback to students. The research skills developed in ICD are transferable to other undergraduate and postgraduate courses that these students undertake. Therefore, I recommend teachers use the RSD Framework when designing assessment tasks across a number of courses in the degree so that there is reinforcement of research skills and subject content knowledge for students, and teachers gain from the timesaving benefits.

9 RSD: A Doorway to Learning

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This presentation examines the experiences of a lecturer with the RSD framework in an undergraduate education course titled "Education and Society". It presents RSD not only as a tool to teach research skills, but also as a pathway for undergraduate students to learn more about their own cultures and knowledge systems. Generally, the socialisation and learning experiences of the undergraduate students who enrol in this course have been shaped by the school experiences and the changing social environment they have been part of. Experience has shown that the students' position and world view at the beginning of research is usually one that is different from their own traditional cultures and knowledge systems. The process of research allows students to rethink, relocate and redefine their world as they tap into the information they do not normally access.

This presentation draws from practice and makes explicit that the assignment tasks used by first year undergraduate students involves a process of research and are identical to the inquiry facets expected of postgraduate researches. The presentation highlights the ground realities faced by Pacific student researchers in the implementation of RSD and how these experiences have become motivational platforms for first year students' learning. The presentation captures some of the students' field experiences which demand attention when doing research in Pacific communities. These experiences will highlight the cultural context of ethics and conflicting paradigms as experienced on the ground. The presentation concludes with some key issues learnt from the lecturer's experience with RSD.

10. Research Skill Development and the Models of Engaged Learning

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The Research Skill Development (RSD) framework was first drafted at the University of Adelaide in 2004 to capture and make explicit the ways that educators develop their students' discipline-specific, sophisticated thinking skills, such as those used when researching. The RSD then was based on an examination of good practice, as well as a broad literature base, and over time, many cycles of implementation and evaluation, before the current formulation was published in 2007. From that time the use of the RSD expanded in terms of: disciplinary and interdisciplinary adoptions; years of study from Foundations Years through undergraduate, to Masters and PhD; and institutions using the framework in Australia and overseas.

One phenomena that became evident was that the research-oriented terminology of the RSD was not always suitable. For example, for Work Integrated Learning contexts in industry, colleagues kept the underlying facets and levels of autonomy the same but adapted the RSD's terminology. The result was the Work Skill Development framework, first published in 2009. Adaptations of the RSD to suit a given context have escalated since that time, with the development of the Clinical Reflection Framework, the Optimising Problem Solving pentagon, and even a song for Early Childhood that addresses the six facets of research, called Research Mountain.

Reflection on the need for educators to use terminology appropriate for the context, and the organic evolution of the RSD noted above, led to the decision to lay out the general parameters that connected these models together, and give them the general name 'Models of Engaged Learning and Teaching (MELT) from 2016. This presentation will look at the development, use and evolution of the RSD, and clarify the seven parameters that are in common across the MELT, and which pertain to the six facets (what is learned) plus a consideration of student autonomy (how it is learned). One big, emerging issue concerns consistency for students versus context-specific variety.

11. Enhancing the quality of research through Information Research Skills Development

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The University of the South Pacific Library launched the Information Literacy Programme (ILP) in 2002. In reviewing ILP so that it fits in with the University's strategic directions, the Library used the Research Skill Development (RSD) to inform provisions for building student Information Research Skills. The Library collaborates with the Information Communication and Technology generic course for all first year students to building student Information Research Skills. In line with the RSD facets the IRS modules was developed and implemented for the First Year 100 level students and work is in progress for the reinforcement of research skills at 200 & 300 levels. The postgraduate program provides in-depth exploration of research skills as well as exposure to research tools, databases and theses.

In re-evaluating its contribution to more explicitly support the research capacity building required by USP, the Library now provides priority support for research with subscriptions to major publishers to enable more electronic book packages and licensing for journal databases. The de-selection of print resources in general collections is receiving high priority for provision of space for the Learning Commons on Level A and focus on the current curricula and research themes. The library also focuses on promoting the university's research publications in pursuing ORCID for managing researcher identity and coordinating training for USP staff on research analytics and discovery. In supporting the University's research repository USPPERR the Library is vetting the bibliographic data in compliance to international bibliographic standards. This has been supported by a new appointment of Librarian for Electronic Resources and change of current reader services Librarian to Reader Services (Research). Discipline-based faculty teams of librarians will work with the Associate Deans of Research to address faculty-wide information and research needs using a range of approaches.

12. Ways that students develop academic writing skills in higher education contexts: reframing the script to include research skills development.

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This presentation describes a project that is located at The University of the South Pacific, a regional institution where undergraduate students must have passed the last year of high school assessment at Form 7 or Year 13 or equivalent. The research study presented traces the performance of full-time English as Second Language (ESL) students enrolled in one of four of the USP compulsory courses: English for Academic Purposes (EAP). The project focuses on the development of academic writing skills through the EAP course in the context of the Research Skill Development (RSD) conceptual framework. An integrative approach was used to study the texts, the writers and the contexts in which students write. While it is assumed that students' academic writing skills and research skills develop over time, it is necessary to provide empirical evidence of this. Data was gathered from questionnaires, interviews and texts using a mixed-methods quasi-longitudinal approach over a period of one semester (14 weeks) with cross-sectional sampling methods.

To gain greater insight into the process, two case studies are provided: one from Fiji and one from Samoa. This research uses a holistic approach and focuses on the perceptions of students as well as capturing student performance data, filling a gap in the RSD literature on student performance. Six out of twelve staff members who taught the course were also interviewed to gain insight into their approaches towards the RSD framework. The pre-post perception questionnaire comparison suggested that students were more confident overtime in using research in their writing and felt that their research skills had improved. Text analysis showed that students generally improved overtime. This presentation concludes that the effective and consistent use of RSD framework leads to students being more aware of their research skills and applying them to developing their academic writing skills.