RSD at UW – Stout
Community of Practice
Handbook for 2015 -2016

Characterizing the RSD Framework within class and program contexts

Presented by:
Sylvia Tiala
Kim Zagorski

Material in this handbook is adapted from:
Copyright John Willison, Consultant for the University of the South Pacific, 2013. Use of this material does not imply endorsement by the copyright holder.

Table of Contents

Introduction by John Willison ........................................................................................................ 3
Welcome ......................................................................................................................................... 4
Resources ...................................................................................................................................... 5
Rationale for the Research Skills Development Framework ..................................................... 6
RSD Terminology ............................................................................................................................ 9
Research Skill Development (RSD) Framework .......................................................................... 10
RSD Community of Practice ......................................................................................................... 11
Outcomes ....................................................................................................................................... 11
Method of Evaluation ................................................................................................................... 11
Tentative Timeline ......................................................................................................................... 13
Activity 1: Define Your Application of the RSD ........................................................................... 17
Activity 1 Worksheet ..................................................................................................................... 18
Activity 2: Backward Design ......................................................................................................... 19
Thomas Angelo Assessing Student Learning ............................................................................... 20
Goals: Activity 3 Worksheet .......................................................................................................... 21
UW – Stout’s RSD CoP Blog Response Template ........................................................................ 22
Applications to participate in RSD Community of Practice ...................................................... 23
RSD Handbook for UW – Stout 2014- 2015 Community of Practice

Introduction

University of Wisconsin Stout has taken on an ambitious project of providing undergraduate students with rich research experiences both in the curriculum and extra-curricular. As the campus explores the potential and the pitfalls of undergraduate research experience for all, it has embarked on a sensible strategy of conceptualizing first how to scaffold successfully the development of the skills associated with research in discipline-based and interdisciplinary contexts. To that end, the Community of Practice has already formed, debated, organized whole-of-campus events and decided on a conceptualization of the teaching and learning processes that will inform this enterprise.

This handbook was adapted and crafted to serve the CoP, outlining the Research Skill Development (RSD) framework as the conceptual model for this endeavor. The RSD conveys in overarching terms processes common to research in its many forms - literature, laboratory, clinical and field- and in its numerous discipline and interdisciplinary guises. This may be contrasted with research products, which differ markedly from context to context. Given the diversity of research experiences, the RSD will act as a conceptual glue, helping educators to be on the same page in discussions even when teaching aspects of research that look very different from each other. As a conceptual framework, it needs to be made real, to be adapted so that it will work in each context; this handbook serves this purpose of helping each UWS educator to make the RSD fit for purpose.

I personally have immensely enjoyed my two visits to UWS, and found people to be warm, hospitable and deeply interested in their students’ learning. I look forward to hearing about how the CoP progresses, evolves and dynamically influences students as they progress through their undergraduate studies. This community has a good shot at providing a coherent thread of experiences to develop student research skills that students employ throughout their education and into employment or postgraduate study.

Dr John Willison, 28 August 2014
University of Adelaide, Australia
Welcome

UW Stout colleagues

Kim Zagorski and Sylvia Tiala are pleased to be collaborating with the Nakatiani Teaching and Learning Center and the 2015-2016 UW-Stout Research Skill Development Cohort in exploring John Willison’s Research Skills Development Framework. It will be exciting to determine ways in which we can explicitly and coherently develop students’ research skills, research literacies, and problem solving skills in the context of undergraduate education.

This endeavor has its roots in a May, 2013 meeting of the Wisconsin System Council on Undergraduate Research (WiSCUR) where UW-Stout faculty members were introduced to John Willison’s Research Skills Development Framework (RSD). Willison’s subsequent visit to UW – Stout’s campus in November of 2013, and a workshop in July of 2014, paved the way for the development of the resources that were shared with the first RSD at UW-Stout cohort during the 2014 -2015 academic year.

The 2015-2016 marks the second year of the RSD Community of Practice (CoP). Our CoP is being supported by the Nakatani Teaching and Learning Center and a University of Wisconsin System Undergraduate and Discovery Grant that was submitted by UW-Stout’s Research Services in October of 2014. The purpose of the grant is to develop the infrastructure to support the institutionalizing of undergraduate research.

During the 2015 – 2016 academic year we will be using Willison’s RSD Framework to guide conversations relative to developing students’ research skills within our disciplines. We will also be looking at ways to scale RSD projects and develop modules to help others incorporate best-practices related to the RSD framework into their teaching. Our hope is to make a contribution to UW - Stout’s vision and enduring goals by promoting undergraduate research as a sound pedagogical practice.

Welcome to our community!

Kim Zagorski
Sylvia Tiala
Resources:

Websites for RSD Resources:

https://uwstoutrsd.wordpress.com/
UW – Stout Research Skill Development Cohort is an ongoing blog that includes training manuals, as well as insights into the implantation of the RSD framework at the University of Wisconsin-Stout. Participants provide insights into their efforts as they implement the RSD into their classes.

http://www.adelaide.edu.au/rsd/
The University of Adelaide’s Research Skill Development for curriculum design and assessment includes links to the framework, evidence of effectiveness, discipline examples, sister frameworks, blogs and events.

http://www.research.usp.ac.fj/?page_id=135
The University of the South Pacific’s site includes training modules, reports, online training modules, and RSD resources such as training manuals. This handbook is an adaptation of one of their training manuals following the creative commons license.

http://monash.edu/library/skills/rsd/
Monash University provides information regarding the collaboration between the library and faculty/academic staff. Examples of collaborations are provided.

https://www.youtube.com/watch?v=vPEtpARmQ2s&feature=youtu.be
Byron Anderson’s YouTube Video documenting efforts to incorporate the RSD Framework to guide practice rather than as a research tool.

Publications of Interest:

For the research article on ideas underlying RSD, please refer to the following:


Rationale for the Research Skill Development Framework

Undergraduate education and university research
Undergraduate education has historically been seen in conflict with academics’ research agenda (Lane, 1996; Sample, 1972). Boyer’s revolutionary reconceptualization of scholarship, motivated by a concern to ‘break out of the tired old teaching versus research debate’ (Boyer 1990, p. xii) has suggested possibilities other than that seemingly entrenched ‘truth’ of research and teaching as necessarily competing endeavors. In this view, teaching and research are not perceived as being in opposition, but rather, as inextricably linked with one other (Brew, 2006).

Within this paradigm, students are perceived as researchers who ‘observe and participate in the process of both discovery and communication of knowledge’ (The Boyer Commission on Educating Undergraduates in a Research University, 1998, p.18). Universities are ‘scholarly communities’ (Huber, 2003) and the purpose of undergraduate education is to induct students into that community. Lave and Wenger (1991) speak of learning as being ‘configured through the process of [the learner] becoming a full participant in a socio-cultural practice’ (p. 29), with learning corresponding to ‘increasing participation in communities of practice’ (p. 47). The ‘beginner’ develops ‘an increasing understanding of how, when and what about old- timers collaborate, collude and collide’ (p. 95); they learn to become members of a research community (Coppola, 2001; Brew, 2003a). So research skill development can be seen as an underlying principle of all education, not as something restricted to ‘researchers’ engaging in activities which compete with their teaching demands.

A framework for research skill development
The emerging question is, why is the research work done as part of undergraduate study not explicitly identified as such more often? Undergraduate research is possible, and is presently being conducted in some disciplines; yet many problems remain as barriers to its wider implementation. One of these problems, at least, is potentially addressable: The conceptual difficulties faced in facilitating student research skills. This could be addressed by a framework that helps academics conceptualize how they could explicitly facilitate student research skill development.

Research is motivated by curiosity or a need to know about how things are, and what they do or may do. Einstein claimed that his redeeming feature, in terms of research, was not cleverness or giftedness, but that ‘I am only very, very curious’, and while we may question his self-assessment in relation to cleverness and giftedness, what he says does underscore the pre-eminent characteristic of research: namely, to wonder why. To research, we embark on a voyage of discovery launched by curiosity or
need. Children have this capacity to wonder early in life. However, to be maintained, this desire to embark on inquiry needs to be nurtured. Education should lead students to ask research questions of increasing sophistication, specificity, depth and breadth that set them on a journey towards making the unknown known.

Conceptualizing and facilitating this journey is a task for all educators, and especially lecturers of undergraduates. At most levels of education, students’ research knowledge that is unknown to themselves, but which is commonly known to others. This research typically takes the form of assignments which are prescribed by others. As a student’s education progresses, their research moves into a discipline discourse with concepts, language and conventions unknown to those outside that discipline. Research at this level is into the commonly not known. As students become well-acquainted with the canon of a discipline and its research techniques, they may be ready—probably at postgraduate level—to research gaps into or even extend the field, into areas previously unknown to humankind. Whether researching into the commonly known, the commonly unknown or the totally unknown, the process may equally be labelled researching or learning: ‘research is learning’ (Brew, 1988 cited in Brew & Boud, 1995, p.267). Assignment tasks frequently require students to be involved in a process of research, though this is seldom made explicit. All associated activities which could be broadly identified as ‘research’ can be located on the research continuum, placing a first-year library or internet research assignment on the same continuum as PhD research: the associated set of skills are often the same, but what varies from first year to PhD is the degree of rigor, the level of specialization and complexity of the discourse, the scope, depth and methodological framework applied to the inquiry process, and the extent of ‘unknownness’ of the topic under research. The fundamental facets of inquiry are identical, with common processes being acted out across all research endeavors.

This notion of the commonality of research processes underpins the two models we drew upon to identify facets of research, namely the ANZILL (2004) Standards and Bloom’s Taxonomy (Bloom, et al. 1956). The ANZILL Standards comprehensively describe ‘the skills or competencies that together make for effective and appropriate use of information’ (CILIP 2005), this use being an essential and major part of the research process. Bloom’s Taxonomy was developed initially to ‘help one gain a perspective on the emphasis given to certain behaviors by a particular set of educational plans... so that it becomes easier to plan learning experiences and prepare evaluation devices’ (Bloom et. al., 1956, p.2). Although the Taxonomy was first published fifty years ago, it has been consistently applied to teaching and learning contexts since that time (see, for example, Ormell, 1974; Furst, 1981; Anderson, Sosniak & Bloom, 1994; Krathwohl, 2002) and so provided another widely-applicable framework. Willison and colleagues considered relevant to research-as-learning. Drawing together elements from these two models led us to specify six facets of the research process: namely, that students embark on inquiry and so determine a need for knowledge/understanding, find/generate needed information/data using appropriate methodology, critically evaluate information/data and the process to find/generate them, organize information they have collected/generated, synthesize and analyze new knowledge, and communicate knowledge and understanding and the processes used to generate them.

As well as these facets, there are variables which span across the whole research process. One of these is the degree of ‘knownness’; another is the degree of student autonomy in the research activity. Autonomy is widely acknowledged as an important aim in education (Boud, 1988; Bruce, 1995; Butler, 1999; Fazey & Fazey, 2001). Autonomy in the research context ranges from student engagement with closed inquiries directed towards a pre-determined outcome, involving a high level of structure and guidance and using prescribed methods and processes, through to open inquiries involving high levels of autonomy and self-determination in terms of what is investigated and how the investigation is done.
Inquiries can be classified as ‘closed’ (lecturer-specified) or ‘open’ (student-specified) in relation to: the question, hypothesis or aim of the task; the procedure followed or equipment used; and the answer, resolution or need for further inquiry which is arrived at (Hackling & Fairbrother, 1996).

Drawing together the facets of research with the degree of student autonomy, Willison and colleagues devised a conceptual framework based on an earlier formulation (Willison & O’Regan, 2005), from which to hang conceptions of student research skill and its development. This is the Research Skill Development framework, the rows of which correspond to the six major student research facets, with the double-ended vertical arrow indicating that the movement through these facets is not linear, but recursive. Students researching may find, for example, whilst synthesizing (Facet E) information and data, that they need to reframe their research question (Facet A). Nevertheless, there is a general progression from Facet A, leading ultimately to Facet F. The five columns in the table represent the degree of student autonomy, with Level I corresponding to a low degree of autonomy and describing students working at a level of a closed inquiry, requiring structure and guidance, and Level V corresponding to a high degree of autonomy and describing students functioning at the level of open inquiry.

The labelling of the facets and levels with successive letters and numbers is not meant to imply that a student progresses through them in a linear, pre-determined way. Nor will a student necessarily, at any one time, be functioning at the same level for all the specified facets. The progression for each student is recursive as well as context-, task- and discipline-specific. An individual student may engage in research behavior which corresponds to their own individual pathway through the table, moving to higher or lower levels in each facet depending on the variables of context, task and discipline: a student may, at one time and in one context, be functioning at Facet A at Level II, for Facet C at Level V and forFacet D at Level III, while at another (or the same) time, in another context, their position may be represented by a different cluster of cells.

Students may go through many Level I to Level V cycles when researching the commonly known in undergraduate studies (or earlier). As they progress towards researching the commonly unknown, they may move through those same cycles several more times, finally arriving at the cutting edge of research into the totally unknown. Yet here again they may need guidance, starting at level I or II, until the autonomy of Level V is realizable, and at which point the student is applying the ‘standards’ of rigor and impact (Glassick et al., 1997) required to generate knowledge new to humankind.

The RSD framework is designed primarily as a conceptual tool for diagnosis and planning, promoting understanding and interpretation of both potential and realized student research skill development.
**RSD Terminology:** Definitions of key terms that are specific to the RSD approach are given below.

**Facet of Inquiry:** A facet of inquiry is an element of the research process. In the RSD the six facets are based on and build on from the stages of Bloom’s Taxonomy, but are not considered hierarchical or linear; students may undertake all or some of the facets at different points during an assessment task or engagement with a text.

**Level:** A level of the RSD represents the extent of autonomy in research that a student can achieve or has achieved. Although these levels are arranged in a progression, they are not necessarily a hierarchical construct and do not imply a linear progression from Level 1 to Level 5; a student’s location within the levels is context-dependent and individualized.

**Comprehensive rubric:** A comprehensive rubric gives detailed marking criteria for each facet and level. This allows criteria to be extremely explicit and objectives to be completely clear, and feedback to be extremely detailed. It also allows students to have a clear idea from the outset about what they must do to achieve a target grade.
## Research Skill Development Framework

A conceptual framework for the explicit, coherent, incremental, and spiralling development of students’ research skills

### Extent of Students’ Autonomy

<table>
<thead>
<tr>
<th>Level 1 (Prescribed Research)</th>
<th>Level 2 (Bounded Research)</th>
<th>Level 3 (Scaffolded Research)</th>
<th>Level 4 (Student-initiated Research)</th>
<th>Level 5 (Open Research)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly structured directions and modelling from educator prompt student research</td>
<td>Boundaries set by and limited directions from educator channel student research</td>
<td>Scuffices placed by educator shape student independent research</td>
<td>Generate questions/aims/hypotheses based within structured guidelines*</td>
<td>Generate questions/aims/hypotheses based on experience, expertise and literature*</td>
</tr>
<tr>
<td>Respond to questions/tasks arising explicitly from a closed inquiry. Use a provided structured approach to clarify questions, terms, requirements and expectations.</td>
<td>Respond to questions/tasks generated implicitly and within a closed inquiry. Choose from several provided structures to clarify questions, terms, requirements and expectations.</td>
<td>Respond to questions/tasks generated from a closed inquiry. Choose from a range of provided structures or approach to clarify questions, terms, requirements and expectations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond to questions/tasks arising explicitly from a closed inquiry. Use a provided structured approach to clarify questions, terms, requirements and expectations.</td>
<td>Collect and record required information/data using a prescribed methodology from a prescribed source in which the information/data is clearly evident.</td>
<td>Evaluate information/data and reflect on inquiry process using simple prescribed criteria.</td>
<td>Organise information/data using prescribed structure. Manage linear process provided.</td>
<td>Analyse and synthesise information/data to reproduce existing knowledge in standard format. <em>Ask emergent questions of duplication/curiosity</em>.</td>
</tr>
<tr>
<td>b. Find &amp; Generate</td>
<td>Collect and record required information/data using a prescribed methodology from a prescribed source in which the information/data is clearly evident.</td>
<td>Collect and record required information/data from self-selected sources using one of several prescribed methodologies.</td>
<td>Organise information/data using a choice of given structures. Manage a process which has alternative pathways.</td>
<td>Analyse and synthesise information/data to reproduce existing knowledge in standard format. <em>Ask emergent questions of duplication/curiosity</em>.</td>
</tr>
<tr>
<td>c. Evaluate &amp; Reflect</td>
<td>Evaluate information/data and reflect on inquiry process using simple prescribed criteria.</td>
<td>Collect and record required information/data from self-selected sources using one of several prescribed methodologies.</td>
<td>Organise information/data using recommended structures. Manage self-determined processes with multiple possible pathways.</td>
<td>Analyse and synthesise information/data to construct emergent knowledge. <em>Ask questions of new understanding</em></td>
</tr>
<tr>
<td>Collect and record required information/data using a prescribed methodology from a prescribed source in which the information/data is clearly evident.</td>
<td>Collect and record required information/data from self-selected sources using one of several prescribed methodologies.</td>
<td>Collect and record self-determined information/data from self-selected sources, choosing an appropriate methodology based on structured guidelines.</td>
<td>Collect and record self-determined information/data from self-selected sources, choosing an appropriate methodology based on structured guidelines.</td>
<td>Collect and record self-determined information/data from self-selected sources, choosing an appropriate methodology based on structured guidelines.</td>
</tr>
</tbody>
</table>
**RSD Community of Practice**

The goal of this faculty CoP is to characterize the research and skill profile of programs across campus using John Willison’s *Research Skill Development Framework* (RSD). Members learn about the framework and adapt it to the needs of 2-3 programs/courses in their college. Then, members will use the RSD to create profiles about undergraduate research within these programs/courses. Assistance for data collection, analysis and assessment will be provided. Members will be asked to reflect critically on both their results and the process of applying the RSD, and will share this information with the University community.

**Desired Outcomes:** By the end of the CoP, participants will:

- Begin a campus dialogue for understanding how RSDF skills are embedded in degree programs.
- Refine the RSD framework for 2-3 selected courses/programs in their college.
- Collect baseline data to inform the campus of how the RSDF profile aligns with the selected programs, college and University missions.

**Participants will be expected to produce:**

- A refined RSD framework that meets the needs of their selected courses/programs.
- IRB approval for project by mid-December
- Reflections on how courses/programs align with course/program outcomes and the campus mission.
- A report on their accomplishments to program directors, Deans’ Council, Assistant Chancellor, Associate Vice Chancellor, the Chancellor’s Advisory Committee, and NTLC.

**Method of Evaluation:**

We anticipate using multiple methods to evaluate UW-Stout’s Community of Practice. We are proposing to use blog posts, questionnaires, and newly – developed curriculum materials to assess questions such as:

1) What concerns do participants face as they begin the process of implementing the RSD Framework into their courses?
2) What “best practice” processes can be used to identify and engage supporting units (i.e. library, McNair Scholars program, Honors College, etc.) with the RSD Framework?
3) How well do instructors/program directors feel the RSD profile and revised framework accurately reflects the RSD embedded in their program/courses?
4) How well do individual instructors feel the RSD profile and revised framework accurately reflects the RSD embedded in their program/courses?
5) Final report and poster as indicated on the following page
2015 RSD Community of Practice Final Report Instructions

In an effort to provide you with helpful guidelines for writing up your final RSD CoP project and its outcomes, the following instructions have been put together. Please let Renee Howarton, howartonr@uwstout.edu, know if you have questions or need more information. Thank you.

While there is a wide range of creative ways to document what you accomplished this past year, you need to make sure that your final project report contains the following:

- A discussion of your project’s goal and the assessment tools that you incorporated in an effort to determine student learning outcomes (include examples).

- A description of what RSD Framework-based assignments, activities and/or projects you did in your course(s). Be sure to include samples (extra attachments) of your actual assignments/projects.

- A summary of what was learned from assessing your students. If possible please include quantitative and qualitative results. This doesn’t have to be extensive. However, if only student comments/reflective statements are available, that’s fine too.

- Reflections that you gathered from your students, if any. In gathering those insights, you may want to use questions that come from Thomas Angelo’s & others’ work on assessment. Please see the included questions.

- Your personal insights and reflections about this yearlong project and what you gained from participating in it.

- Your personal insights regarding what long-term lessons have been learned from being part of this experience. What would you like future cohort members to know about implementing the RSD Framework into their courses? This information will be very helpful to us as we attempt to create a checklist to pass onto other faculty.

Your written report’s content should be between 3 to 5 pages long, plus additional examples (assignments, assessment tools, etc.) Your final report should be e-mailed to Renee Howarton no later than June 30th.

Producing a poster/artifact descriptive of your research:
Two templates (horizontal & vertical options) will be provided for you to use for producing a final poster to be used in promoting your efforts relative to the RSD CoP. The deadline for sending your completed poster will be indicated as the CoP progresses. In addition, here is information regarding making an effective infographic for your poster http://www.elsevier.com/connect/infographic-tips-for-designing-better-research-posters?sf9054453=1&sf9089789=1
### Tentative Activities and Proposed Meeting Schedule

<table>
<thead>
<tr>
<th>Meeting Date</th>
<th>Tentative Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 25</td>
<td>Cohort 2 – Introduction to the RSD Community of Practice</td>
</tr>
<tr>
<td></td>
<td>Introduction to the RSD</td>
</tr>
<tr>
<td></td>
<td>Geocaching the RSD</td>
</tr>
</tbody>
</table>

For Reference And Review

Please review for common reference:

- Explanation of RSD found at [https://www.youtube.com/watch?v=H_35rzH0bXc&feature=youtu.be](https://www.youtube.com/watch?v=H_35rzH0bXc&feature=youtu.be)

<table>
<thead>
<tr>
<th>Sept. Meeting 1</th>
<th>At meeting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction &amp; project ideas.</td>
<td></td>
</tr>
<tr>
<td>2. Overview of CoP – how it started; what are the goals and intended outcomes</td>
<td></td>
</tr>
<tr>
<td>3. Responsibility/commitment related to CoP</td>
<td></td>
</tr>
<tr>
<td>4. Discuss requirements for documenting progress.</td>
<td></td>
</tr>
<tr>
<td>5. Complete IRB Training</td>
<td></td>
</tr>
<tr>
<td>6. Meeting schedule – when and set up times</td>
<td></td>
</tr>
<tr>
<td>7. Point to RSD website(s) - <a href="http://www.adelaide.edu.au/rsd/">www.adelaide.edu.au/rsd/</a></td>
<td></td>
</tr>
<tr>
<td>8. Boyer’s Model of Scholarship</td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page

**Prepare for Discussion:**

1. Read:
   - Boyer’s Model of Scholarship [https://depts.washington.edu/gs630/Spring/Boyer.pdf](https://depts.washington.edu/gs630/Spring/Boyer.pdf)
2. **Activity 1 – Applying the RSD framework**

<table>
<thead>
<tr>
<th>Sept Meeting 2</th>
<th>Prepare for Discussion:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Review examples of other campuses who have used the RSD framework (USP, Adelaide, and other websites you find).</td>
</tr>
<tr>
<td></td>
<td>2. Generate the materials needed to carry out the plan. Use Activity Worksheet 2 – Backward Design to help formulate your response.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At Meeting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Sign consent forms</td>
</tr>
<tr>
<td>4. Discuss how to post to blog</td>
</tr>
<tr>
<td>5. SEDL’s “Stages of Concern Questionnaire” (permission pending)</td>
</tr>
<tr>
<td>6. Discuss your final plan regarding how you will use the RSD Framework in your class/program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blog/post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Post to blog (or alternative) using UW-Stout’s RSD CoP Blog Template. Think about:</td>
</tr>
<tr>
<td>a. What will you develop?</td>
</tr>
<tr>
<td>b. How will you use the materials you develop</td>
</tr>
<tr>
<td>c. What is the timeline for implementation?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oct. Meeting 1</th>
<th>Discuss individuals’ ideas as to how to introduce the RSD framework to students/peers and begin a discussion related to analyzing the framework within a specified context with personal relevance.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select scope, assignments, projects, class, assignment</td>
</tr>
</tbody>
</table>

| Activity 2 Backward design. |

| Oct. Meeting 2 | Look at project idea and select level of framework to be addressed. Formulate project ideas and actual pre-post assessments. Get ready for IRB question |

| Nov. Meeting 1 | Elizabeth Buchanan and IRB – write IRB up |

<p>| Nov Meeting | Work on IRB |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec Meeting 1</td>
<td>Course syllabus tied to project. Work integrating RSD project into course</td>
<td></td>
</tr>
<tr>
<td>Dec Meeting 2</td>
<td>Participants present their final plan (including assessment) for incorporating the RSD framework into assignments, courses, or programs for Spring 2015. <strong>At Meeting:</strong> 1. Review blog 2. Listen to presentations 3. Generate spring semester timeline</td>
<td><strong>Preparing for Discussion:</strong> 4. Finalize plans RSD integration into your course 5. <em>IRB forms submitted for approval – and submitted</em></td>
</tr>
<tr>
<td>Prof. Dev. Week</td>
<td>A 2 hour block of time scheduled to work on project implantation SEDL’s “Stages of Concern Questionnaire” (permission pending)</td>
<td></td>
</tr>
<tr>
<td>Feb Week 2</td>
<td>Alignment with department and program goals 1. Complete part of Worksheet 3: Aligning with program and course goals.</td>
<td></td>
</tr>
<tr>
<td>March Week 1</td>
<td>Update on data collection</td>
<td></td>
</tr>
<tr>
<td>March Week 2</td>
<td>Anecdotal evidence related to project</td>
<td></td>
</tr>
<tr>
<td>April Week 1</td>
<td>Places for publication and dissemination</td>
<td></td>
</tr>
<tr>
<td>April Week 2</td>
<td>Participants will discuss dissemination plans and platforms for their individual projects. Participants will finalize data analysis.</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>May Day presentation. Participants will debrief and discuss next steps/continuation (presentation/publication). Prepare final reports SEDL’s “Stages of Concern Questionnaire” (permission pending)</td>
<td></td>
</tr>
</tbody>
</table>
Activity 1: Applying the RSD

The RSD Framework is a flexible tool that can be used at the course, the program and at the college level. Its flexibility and ease of adaptation, while creating a common framework, adds to its appeal. In our RSD Community of Practice we will be tailoring the RSD to your needs. The established goals of this community of practice are to:

1. Begin a campus dialogue for understanding how RSD Framework skills are embedded in courses and degree programs.
2. Refine the RSD framework for a selected program (or course) in a college
3. Collect baseline data to inform the campus of how the RSD Framework profile aligns with selected programs, college and university missions.

As we continue with our RSD Community of Practice will be expected to

- Create a refined RSD framework that meets the needs of a selected course/program
- Create a course/program-based tool for assessing the RSD.
- Reflect on how our RSD efforts align with course/program outcomes and the campus mission.
- Report on the process to program directors, Deans’ Council, Assistant Chancellor, Associate Vice-Chancellor and the Chancellor’s Advisory Committee.

Task:

Read:
Up to “Project Deliverables” on page 13.

Answer the following questions using method agreed to by UW-Stout’s RSD Learning Community. Use the Activity 1 Worksheet to help frame your answers,

1. How are you planning on using/modifying the RSD? Please identify specifically how you are using the RSD within a course or program context.
2. Who is your target audience (students, peers, program director, other)?
3. What is your timeline for implementation?
Activity 1 Worksheet

Name:

Target Audience:
Describe your target audience: (Who will you target in your activity? Students? Peers? Number of individuals involved, etc.)

Plans for using/modifying the RSD within a course/program context:

Timeline for implementation: (note that IRB approval needs to be obtained before mid-December)
Activity 2 Worksheet
Backward Design

Use the questions and the chart below to help you outline a project implementing the RSD framework into your area of interest.

Name:

Briefly describe your project:

What goals do you hope to accomplish?

How will you measure the success of the students and of your own teaching? (You may find Thomas Angelo’s Suggestions for Assessing Student Learning on the following page helpful).

Timeframe for implementation
Describe how long you anticipate it will take to implement this activity

Backward Design

<table>
<thead>
<tr>
<th>Goals to accomplish</th>
<th>Measures of success (student and instructor)</th>
<th>Timeline and strategy for implementation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use this space to indicate the goals you wish to accomplish</td>
<td>How will you know when you have accomplished your goals?</td>
<td>List the strategies, methods and suggested dates for accomplishing your goals.</td>
</tr>
</tbody>
</table>
Thomas Angelo’s Suggestions for Assessing Student Learning

Assessment Questions
Relative to assessment, although some of you have extensive backgrounds in this area, here are some examples of reflective questions you might ask your students. They come from T. Angelo and others. This may be especially helpful for those of you wondering how to capture your students’ thoughts about your inclusion of the RSD Framework. We do not suggest that you use all of these questions but just offer them up for possible consideration. Please insert such words as “undergraduate student research” and/or “RSD Framework” where you feel they are most appropriate and support what you did in your course.

1. What was the most significant thing that you learned from this activity, assignment and/or project?
2. In what ways has this course experience impacted the way you think about the subject matter?
3. What aspect of the assignment, activity or project contributed the most to your learning?
4. What specific, practical change would you suggest be made to improve the assignment, activity or project for future students?
5. Overall, how useful was this assignment, activity or project in helping you learn the subject matter?
6. What did you learn from the assignments, activities or projects your classmates produced and shared with you?
7. How do you feel about the actual assignment, activity or project you produced? What are your perceptions of this experience?
8. If you were the teacher, what would you have done differently to include a more effective student research experience within the course?
Goals: Activity 3 Worksheet

Complete the chart below after reading the WGS STAR Report at [http://www.research.usp.ac.fj/wp-content/uploads/2013/11/WG5_REPORT_on_RSD.pdf](http://www.research.usp.ac.fj/wp-content/uploads/2013/11/WG5_REPORT_on_RSD.pdf). Use your identified project and the class/program context you are targeting to more clearly define how your project ties to the university/college/program/course goals.

**Name:**

<table>
<thead>
<tr>
<th>UW – Stout 2020 Goals</th>
<th>Explanation of ties to your project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1: Offer high quality, challenging academic programs that influence and respond to a changing society.</td>
<td></td>
</tr>
<tr>
<td>Goal 2: Preserve and enhance our educational processes through the application of active learning principles.</td>
<td></td>
</tr>
<tr>
<td>Goal 3: Promote excellence in teaching, research, scholarship and services.</td>
<td></td>
</tr>
<tr>
<td>Goal 4: Recruit and retain a diverse university population.</td>
<td></td>
</tr>
<tr>
<td>Goal 5: Foster a collegial, trusting and tolerant campus climate.</td>
<td></td>
</tr>
<tr>
<td>Goal 6: Provide safe, accessible, effective, efficient and inviting physical facilities.</td>
<td></td>
</tr>
<tr>
<td>Goal 7: Provide responsive, efficient and cost-effective educational support programs and services.</td>
<td></td>
</tr>
</tbody>
</table>

**College Goals:**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

**Program Goals:**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

**Course Goals:**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>
What was my goal?

Here is what I accomplished.

These were my successes.

These were my challenges.

Resources I need to be successful.

Next steps:

Additional comments (optional):
Application to Join a Community of Practice (CoP)

Applying the Research Skill Development Framework

Sylvia Tiala (CoP facilitator)
Kim Zagorski (CoP facilitator)

Name:
Department: Telephone Number:
College/Division: E-Mail:

Complete if you are applying to participate in the NTLC RSD Framework CoP:

Statement of Intent: The goal of this faculty CoP is to characterize the research and skill profile of programs across campus using John Willison’s Research Skill Development Framework (RSD). Members learn about the framework and adapt it to the needs of 2-3 programs/courses in their college. Then, members will use the RSD to create profiles about undergraduate research within these programs/courses. Assistance for data collection, analysis and assessment will be provided. Members will be asked to reflect critically on both their results and the process of applying the RSD, and will share this information with the University community.

Goal: The primary goal of our CoP is to characterize the research and skill profile within the curriculum of 16-24 programs/courses across 4 different colleges using John Willison’s Research Skill Development Framework (RSD) and the accompanying resources at http://www.adelaide.edu.au/rsd/.

Member Selection: We intend to select 2 representatives from each college to participate in the CoP based on the following criteria:

1. Participants will represent different program areas within their respective college.
2. Participants should be engaged with or interested in undergraduate research.
3. Participants should be well-connected within their respective colleges.
4. Participants must be willing to commit to the time needed to develop the RSD profile of selected programs/courses. Those who successfully complete their project IRB and fulfill the yearlong project requirements will receive a $500 financial incentive.
5. Additionally, it would be helpful (though not required) for participants to have served in program development in some capacity (e.g., membership on a program advisory board; reviewed a program/courses or similar experience).

Member Activities:

**August 25th:** CoP participants will participate in a day-long workshop that will introduce them to the RSD Framework and examples of last year’s course projects and outcomes, and involve them in research related geocaching activity.

**August/September:** Facilitators will launch the yearlong RSD Framework CoP. Participants will engage in more detailed discussion of the RSD Framework, how it can be applied to programs, and begin brainstorming assignments and assessment tools that they will eventually be applied to their courses.

Desired Outcomes: By the end of the CoP, participants will:

1) Begin a campus dialogue for understanding how RSDF skills are embedded in degree programs.
2) Refine the RSD framework for 2-3 selected courses/programs in their college.
3) Collect baseline data to inform the campus of how the RSDF profile aligns with the selected programs, college and University missions.

Participants will be expected to produce:

1) A refined RSD framework that meets the needs of their selected courses/programs.
2) Reflections on how courses/programs align with course/program outcomes and the campus mission.
3) A report on their accomplishments to program directors, Deans’ Council, Assistant Chancellor, Associate Vice Chancellor, the Chancellor’s Advisory Committee, and NTL.C.

*Participants must meet bi-weekly throughout the fall and spring semesters. Dissemination of CoP outcomes is also required.*

*Answer the following questions with one to two paragraphs; please limit your answers to two pages.*

1. Explain why you want to participate in the 2015-16 RSD Community of Practice.
2. In what ways do you think that this experience will benefit you as a teacher, other colleagues, and even students? How will it personally support your faculty development?

3. If this CoP is course-focused, indicate a course(s) and topic you would like to apply the Research Skills Development Framework in and describe what you want to take away from the discussion/research experience.

4. Since some participants struggle with effectively assessing student learning and project outcomes, how have you previously assessed your students’ learning especially related to undergraduate student research projects.

Once this application is completed, please send it in an electronic format to Renee Howarton. The application is due on or before Friday, August 21, 2015. Thank you for completing this form.

Revised 7/6/15
Application to Join a Community of Practice (CoP)
Nakatani Teaching and Learning Center

2015-16
Advanced Application of the Research Skill Development Framework

Sylvia Tiala (CoP facilitator)
Kim Zagorski (CoP facilitator)

Name: 
Rank/Position:

Department: 
Telephone Number:

College/Division: 
E-Mail:

Complete if you are applying to be a member of a NTLC Communities of Practice:

Answer the following questions using one to two paragraphs.

1. Briefly describe why you would like to be a member of this Research Skill Development Framework CoP again for a second or third time.

2. What ideas do you have for advancing the infusion of the Research Skill Development Framework into one or more of the classes you will be teaching next year? How will you take this CoP experience to a more advanced level (develop a module, disseminate to your program/college, etc.)? What could you do to design, implement and assess a research project involving your students and that intentionally incorporates the use of this framework?

3. In 2015-16, this CoP experience will be course-focused, therefore, indicate a course(s) you would like to incorporate this undergraduate student research project into and describe what you want to study regarding the framework and its impact on student learning.
4. In what ways will an advanced version of the RSD Framework CoP benefit you as a teacher and your students as learners? How will it support your faculty development?

Members of a CoP are expected to:

- meet at least twice a month throughout the fall and spring semesters
- assess their work and their students' learning outcomes for the CoP
- present at the NTLC annual Celebration held in April or May 2016; they are encouraged to share their results in other venues as well

Participants will receive a financial incentive and the outcomes of the CoP will be shared across the campus in a variety of ways.

Once this application is completed, please send it in an electronic format to Renee Howarton. Thank you for completing this form.