University of Saskatchewan

Identifying Your Research, Scholarly, and Artistic Skills Workshop

11 January 2024
Mandy Fehr & Brette Kristoff

University of Saskatchewan

Territory Acknowledgement

As we gather here today, we acknowledge we are on Treaty 6 Territory and the traditional Homeland of the Métis. We pay our respect to the First Nations and Métis ancestors of this place and reaffirm our relationship with one another.

The Undergraduate Research Initiative is committed to reconciliation in our research, scholarly, and artistic work. This means always learning and relearning, supporting work that is led by Indigenous peoples and communities, and committing to work that is beneficial and accessible to Indigenous communities.

University of Saskatchewan

In the chat:
1. What is your area of study?
2. What do you want to learn today? (for example, job applications, NSERC USRA etc.).

BE WHAT THE WORLD NEEDS

University of Saskatchewan

Session Outline / Our Process

Defining Skills & Competencies

Reflecting on Our Experiences and Identifying Our Skills & Competencies

Identifying the Skills & Competencies for an Award or Job

Connecting Our Skills to a Specific Award or Job

Review & Resources

BE WHAT THE WORLD NEEDS

University of Saskatchewan

Defining Skills & Competencies

BE WHAT THE WORLD NEEDS

University of Saskatchewan

Defining Research

*Research is defined as the **creation of new knowledge and/or the use of existing knowledge in a new and creative way** so as to generate new concepts, methodologies and understandings.*

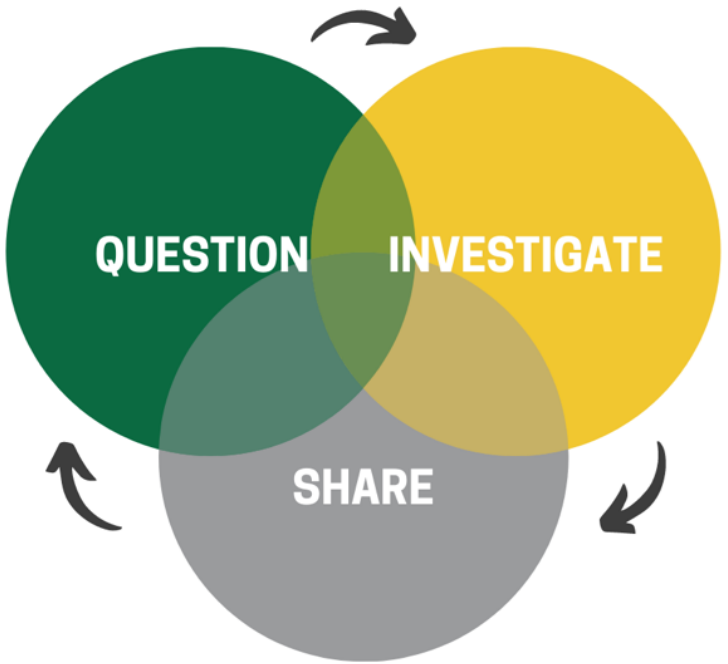
https://www.westernsydney.edu.au/research/researchers/preparing_a_grant_application/dest_definition_of_research

UNIVERSITY OF SASKATCHEWAN

The Research / Scholarly Process

UNIVERSITY OF SASKATCHEWAN
Research Acceleration and Strategic Initiatives
OFFICE OF THE VICE-PRESIDENT RESEARCH
RESEARCH.USASK.CA

FYRE
FIRST YEAR RESEARCH EXPERIENCE



- Having Curiosity
- **Question**
- **Investigate**
- Create
- **Share**
- Reflect

BE WHAT THE WORLD NEEDS

UNIVERSITY OF SASKATCHEWAN

Research Skills Development (RSD) Framework

Table 1: Researcher Skill Development Framework

Creative Commons 3.0

A conceptual framework for the explicit, coherent, incremental and cyclic development of the skills associated with researching. ©Willison & O'Regan, August 2008/October 2015

RSD7

www.rsd.edu.au
john.willison@adelaide.edu.au

← supervisor instigated →← researcher instigated →← discipline leading →

Researchers...	Prescribed Research Level 1 Highly structured directions and modelling from supervisor prompt the researcher(s) to...	Bounded Research Level 2 Boundaries set by and limited directions from supervisor channel the researcher(s) to ...	Scaffolded Research Level 3 Scaffolds placed by supervisor enable the researcher(s) to independently...	Self-initiated Research Level 4 Researcher(s) initiate and supervisor guides.	Open Research Level 5 Researcher(s) determine guidelines that are in accord with discipline or context.	Adopted Research Level 6 Researcher(s) inform others' agendas	Enlarging Research Level 7 Researcher(s) enlarge the field of inquiry.
Facets of Research: **a. Embark & Clarify** Respond to or initiate research and clarify or determine what knowledge is required, heeding ethical, cultural, social and team (ECST) considerations. — Curious	Respond to questions/ tasks provided explicitly. Use a provided approach to clarify questions, expectations and ECST issues.	Respond to questions/ tasks implicit in directions. Choose from several provided structures to clarify questions, expectations and ECST issues.	Respond to questions /tasks generated from instructions. Choose from a range of provided structures or approaches to clarify salient elements including ECST issues.	Generate questions/aims/ hypotheses framed within structured guidelines. Anticipate and prepare for ECST issues.	Generate questions/aims/ hypotheses based on experience, expertise and literature. Delve into and prepare for ECST issues.	Identify previously unstated gaps in literature and articulate research directions and ECST issues in response to gaps.	Articulate research directions that expand or direct the field and anticipate the corresponding ECST issues.
b. Find & Generate Find and generate needed information/data using appropriate methodology. — Determined	Collect and record required information or data using a prescribed methodology from a prescribed source in which the information/data is clearly evident.	Collect and record required information/data using a prescribed methodology from prescribed source/s in which the information/ data is not clearly evident.	Collect and record required information/data from self-selected sources using one of several prescribed methodologies.	Collect and record self-determined information/ data, choosing an appropriate methodology based on structured guidelines.	Collect and record self-determined information/ data, choosing or devising an appropriate methodology.	Synthesise others' methods to formulate novel methods/ methodologies or apply existing methods to novel applications.	Generate new methods/methodologies that are used widely.
c. Evaluate & Reflect Determine and critique the degree of credibility of selected sources, information and of data generated. Metacognitively reflect on processes used. — Discerning	Evaluate sources/ information/data using simple prescribed criteria to specify credibility and to reflect on the research process.	Evaluate sources/ information/data using a choice of provided criteria to specify credibility and to reflect on the research process.	Evaluate information/data and inquiry process using criteria related to the aims of the inquiry. Reflect insightfully to improve own processes used.	Evaluate information/data and the inquiry process using self-determined criteria developed within structured guidelines. Refines others' processes.	Evaluate information/data and inquiry process using self-generated criteria based on experience, expertise and the literature. Renews others' processes.	Generate substantial research outcomes, so that ideas, practices or interpretations are cited/implemented by others.	Generate substantial research outcomes, so that ideas, practices or interpretations become foundational in field or discipline.
d. Organise & Manage Organise information and data to reveal patterns and themes, and manage teams and research processes. — Harmonising	Organise information/data using prescribed structure. Manage linear process provided (with pre-specified team roles).	Organise information/data using a choice of given structures. Manage a process which has alternative pathways (and specify team roles).	Organise information/data using recommended structures. Manage self-determined processes (including team function) with multiple pathways.	Organise information/data using self-or-team-determined structures, and manage the processes, within supervisor's parameters.	Organise information/data using self-or-team-determined structures and management of processes.	Form a research team or a team of community-based practitioners.	Form and develop research networks/communities.
e. Analyse & Synthesise Analyse information/data critically and synthesise new knowledge to produce coherent individual/team understandings. — Creative	Interpret given information/data and synthesize knowledge into prescribed formats. *Ask emergent question.*	Interpret several sources of information/ data and synthesise to integrate knowledge into standard formats. *Ask relevant, researchable questions.*	Analyse trends in information/data and synthesises to fully integrate components specified. *Ask rigorous, researchable questions.*	Analyses information/data and synthesizes to fully integrate components, consistent with parameters set. Fill knowledge gaps that are stated by others.	Analyse and create information/data to fill researcher-identified gaps or extend knowledge.	Synthesise others' concepts or interpretations to frame novel outcomes. May also address substantial concerns of a community.	Develop new concepts or interpretations that expand the field or discipline. May also address substantial concerns across communities.
f. Communicate & Apply Discuss, listen, write, present and perform the processes, understandings and applications of the research, and respond to feedback, accounting for ethical, cultural, social and team (ECST) issues. — Constructive	Use prescribed genre to develop and demonstrate understanding from a specified perspective. Apply to a similar context the knowledge developed. Follow prompts on ECST issues.	Use discipline-specific language and prescribed genre to develop under-standing, and demonstrate it to a specified audience. Apply to different contexts the knowledge developed. Clarify ECST issues.	Use discipline-specific language and genres to demonstrate scholarly understanding for a specified audience. Apply the findings to diverse contexts. Specify ECST issues that emerge.	Use appropriate language and genre to address gaps of a self-selected audience. Apply innovatively the knowledge developed to a different context. Probe and specify ECST issues in each relevant context.	Use appropriate language and genre to extend the knowledge of a range of audiences. Apply innovatively the knowledge developed to multiple contexts. Probe and specify ECST issues that emerge broadly.	Change the conversation within the discipline/field through publicly- available communication of knowledge/understanding. Articulate and promote relevant ECST issues.	Change the direction of the conversation across disciplines/ fields. Articulate and promote ECST issues that were previously unstated.

University of Saskatchewan

USask graduates are the LEADERS OF TOMORROW

The knowledge, skills, and perspectives you gain while attending the University of Saskatchewan prepare you to become tomorrow's leaders—contributing to societies and addressing the greatest challenges and opportunities the world faces.

You will achieve this success by becoming proficient in these six competencies and the courses you take at USask will help get you there.

BE WHAT THE WORLD NEEDS

1

Engaging in our intercultural society

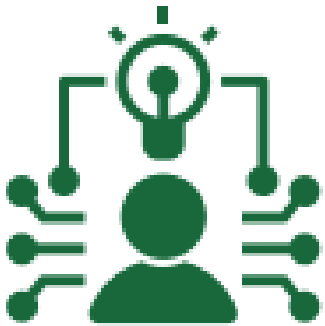
Students who thrive as members of a diverse society handle diversity in perspective, position, and approach adeptly. They communicate and collaborate effectively within diverse groups and an increasingly global society.

2

Nurturing successful relationships

Students who nurture successful relationships can describe their values and beliefs while embracing diversity in others. They are accountable for their actions, manage conflict, successfully prioritize, and negotiate for successful results.

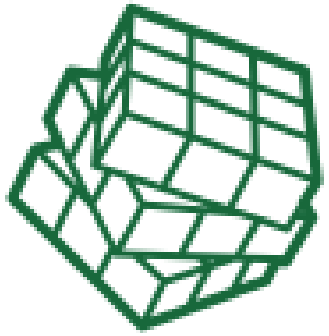
3



Leveraging technology

Students who can leverage technology are able to use digital/technological tools and systems ethically, appropriately, and effectively to complete tasks and accomplish goals.

4



Adaptive Design and Problem Solving

Students who effectively solve problems and create work that is adaptable are strong and creative thinkers. They exercise innovation, critical thinking, and risk taking in the design, implementation, and evaluation of an approach to achieve a desired goal.

5

Communicating meaningfully

Students engage in meaningful communication when they exchange ideas, facts, and perspectives with others. They use different strategies to communicate depending on the context and audience.

6

Cultivating well-being

Students effectively engage in cultivating well-being when they reflect on what they are doing and on their personal and academic needs, and then make appropriate adjustments to be successful. They engage in thoughtful decision-making and are self-aware and reflective, so they can purposefully navigate adversity. Students respect personal limits and boundaries of themselves and others, and persist in the face of change.

University of Saskatchewan

Our Process: THE 4 R'S OF PREPARATION!

Research the position / company or award - look at their website, social media, etc.

Reflect and take inventory of your skills and abilities - use a t-chart to compare your skills and experience to the requirements of the position.

Read and re-read your resume / cover letter /application and make sure that it meets the requirements for the application.

Review - ask your potential supervisor (for an NSERC USRA) or a friend / mentor to review your application.

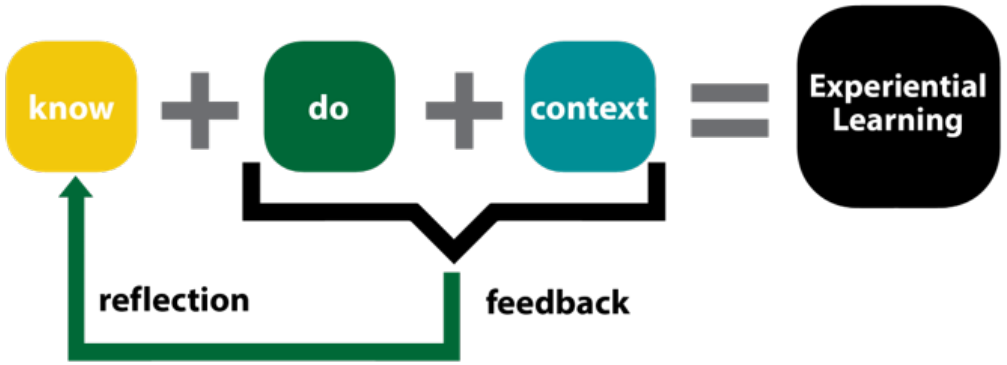
University of Saskatchewan

Identifying Our Skills & Competencies

BE WHAT THE WORLD NEEDS

Why Reflection?

Reflecting on a situation, experience, or specific context can help us to better understand what happened, why it happened, what went well, and perhaps what we would do differently.



Preparation – Take Inventory

Spend some time reflecting on your what you have done (experience) and the related skills and abilities; think in terms of school, work, extra-curricular activities etc.

Transferable skills - you have them! Keep and update a record!

BE WHAT THE WORLD NEEDS

UNIVERSITY OF SASKATCHEWAN

Practice

What do I do (School)	Specific Tasks	Related Research Skills	Related Competencies
Write Research Papers	-Pick a topic -Review literature -Develop a research question -Find additional sources in the library (primary and secondary) -Summarize sources/take notes -Ask Professor for feedback -Create an outline -Develop an argument -Draft Paper -Create bibliography -Cite Sources -	-Curiosity -Generate questions based on the literature -Identify and collect sources to answer research question -Summarize academic articles -What else?	-Adaptive Design and Problem Solving -Communicating Meaningfully
Group projects	-		
Lab work			
?			

University of Saskatchewan

Practice

What do I do (Work)	Specific Tasks	Related Research Skills	Related Competencies
Organize a workshop	- Identify goals / outcomes -Develop a budget -Book a venue -Create posters -Organize a meeting with co-worker -Create a facilitation plan -Create social media posts -Create newsletter post - Create registration site -Order food ...		

Practice

1. Make a chart that includes:
   - What I do
   - Specific Tasks
   - Related Research Skills
   - Related Competencies
2. Pick an area: school, work, extra-curricular activities and begin to fill out the chart. Don’t worry about wording.

University of Saskatchewan

Identifying the Skills or Competencies in a Job or Award Posting

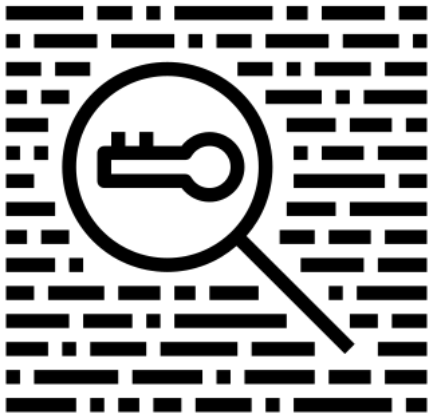
BE WHAT THE WORLD NEEDS

University of Saskatchewan

PREPARATION- REVIEW THE JOB POSTING

Carefully read through the job posting and note the **KEYWORDS** that describe the ideal candidate and the work that they will be doing (abilities, skills and values you should possess).

Include these **keywords** in your application (cover letter / resume / application)



- Skills/Competencies/Abilities
- Characteristics/Personality Traits
- Knowledge/Education
- Experience/Duties/Responsibilities

University of Saskatchewan

Preparation – Do your Research!

Know the employer and the industry!

Jobs

- ✓ Browse through the company website, and social media (Facebook, LinkedIn)
- ✓ Review the Job Post
- ✓ Do you know anyone that works at the organization?
- ✓ Make it easy for the search committee to see how you meet the criteria
- ✓ Stand out by incorporating words from the company mission statement and values into your resume and cover letter
- ✓ Look for connections

Awards

- ✓ Browse through the website and any social media
- ✓ Review any criteria or rubrics provided
- ✓ Can you find information about past winners?
- ✓ Make it is easy for evaluators to see how you meet the criteria
- ✓ Look for connections

Practice – Identify the Skills

The Research Assistant will work on dedicated tasks. These include conducting several literature reviews such as on food security, or on the impact of various government policies on (sustainable) food consumption. The RA will be required to support the Principal Investigator (PI) in developing the best methodology to investigate issues relating to sustainable food consumption, by, for instance, checking the model equations against literature in the field.

The Research Assistant will provide support with the testing of the model(s), by for instance cleaning up the dataset, as the Principal Investigator writes the code for the main model(s). The position might also involve some data collection and the creation of a data bank regarding, for instance, the carbon/water/land footprint of various food items. The RA might also be asked to conduct coding of policy documents using appropriate software and assist the PI in providing a quantitative analysis of those policy documents.

University of Saskatchewan

Practice – Identify the Keywords & Skills

1. Pick a job post or award that you want to apply for. For NSERC USRA applicants use both the project description from your supervisor and the rubric.
2. Highlight or circle keywords
3. Write down any skills that you can think of that would be needed for the position or strengthen an application.
4. Share!

University of Saskatchewan

Connecting Our Skills to a Specific Award or Job Posting

BE WHAT THE WORLD NEEDS

University of Saskatchewan

WRITING TIPS

- ✓ You need to **customize** your materials to the specific company and position or award that you are applying to by including keywords and relevant experience.
- ✓ Ensure the language in your documents matches the description of the ideal candidate in the job posting – this makes it easy for hiring committees or evaluators!
- ✓ Provide enough detail so they understand what your examples mean. They may not know what taking a specific class means in terms of your skills or your suitability for the role, and some experiences, such as an Honours Thesis can mean different things depending on your department or university.
- ✓ Avoid generic, cliché statements.
- ✓ Answer the question: "Why should we hire / pick you"
- ✓ Bullet points for your resume; short paragraphs for your cover letter. Follow instructions for awards.
- ✓ Proofread to ensure there are no grammatical or spelling errors
- ✓ Follow any instructions provided!

BE WHAT THE WORLD NEEDS

University of Saskatchewan

STATEMENTS

Write accomplishment statements to highlight your skills, experience, and achievements. Avoid duty statements, where you simply state your responsibilities or duties for a position. Use the framework below to help you craft a strong accomplishment statement:

Action Verb + Task (skills) + How you demonstrated or developed it

Ex) Maintained positive collaborative relationships with internal and external stakeholders to effectively coordinate a two-day conference on environmental engineering

Ex) Organized staffing schedules and managed production capacity for 50 employees at McDonalds

Tip: Quantify (#, %, $) wherever possible

University of Saskatchewan

Practice!

- Make a T-chart on a separate piece of paper: on one side identify the skills needed for one of the job postings or the NSERC USRA (or another award or job you are interested in).
- On the other side of the T-chart add information from your skills table that relates to the skills needed for the job
- It’s okay if there are places where you need to develop / learn

Practice

- Pick one of the skills from the T-Chart and write a sentence using the following formula:

Action Verb + Task (skills) + How you demonstrated or developed it

University of Saskatchewan

Overview and Resources

University of Saskatchewan

Process Review

1

Identify your skills

- Use tools like the RSD Framework or Competencies for inspiration
- Map out all of the “things you do” in the various components of your life: school, work, extra-curricular to find skills and examples
- Look for patterns and examples of research skills or competencies.

2

Identify the skills that are required for the job or award

- Review the Job Posting and any relevant materials. For NSERC USRAs look at both the rubric and the project description from your supervisor
- Identify key words in the post and write down any skills or experiences needed.

3

Match your skills and experiences to those required for the job or award!

- Use a T-Chart to map out the skills needed for the position and the corresponding skills/or examples that you have.
- Draft some sentences using action verbs, the task required for the job, and how you have demonstrated/developed it.

4

Create your materials!

- Follow the instructions for the award or job application. Career Services provides great instructions for formatting cover letters, resumes, and a CV
- Tailor your materials – pick the best examples from your experiences.
- Review your drafts to make sure they meet the criteria / follow the instructions. For NSERC USRAs ask your supervisor to review and provide feedback.

University of Saskatchewan

Additional Links and Resources

Identifying Your Skills

Research Skill Development Framework

Career Services Resources

Resume / CV Development (Including Verb Lists)

Job Postings

Support Services

NSERC USRA Process for 2024

NSERC USRAs - Office of the Vice President Research - Research | University of Saskatchewan (usask.ca)

University of Saskatchewan

Undergraduate Research Initiative

Questions? Send an email!

Mandy Fehr

Coordinator, Undergraduate Research, Scholarly, and Artistic Work

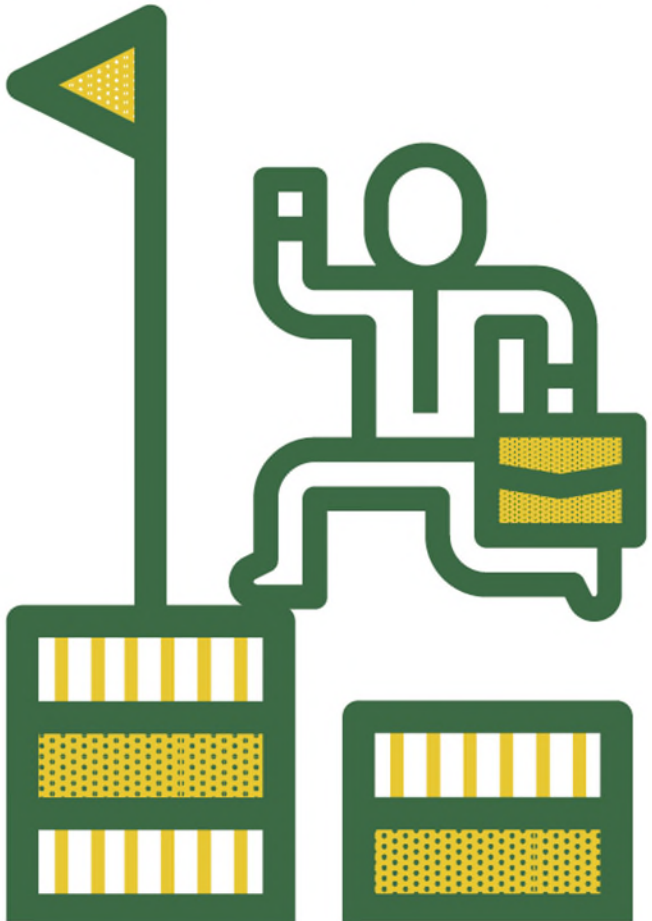
Undergraduate.research@usask.ca

See the Undergraduate Research Initiative webpage for more resources

CAREER SERVICES

As a student or alumni, Career Services is here to help with every step in your career journey!

YOUR **CAREER PATH** STARTS **HERE**



USASK.CA/ CAREERSERVICES

UNIVERSITY OF SASKATCHEWAN