



RECCS RESEARCH SKILLS LEARNER REFLECTION AND SELF-ASSESSMENT

Directions:

1. Please review the list of research skills.
2. Choose 10 skills from the list that you feel you demonstrated during your RECCS experience.
3. For each of your 10 skills, self-reflect by writing a brief response to these prompts:
 - What steps did you take to achieve this skill?
 - Describe what you learned during the process of acquiring the skill.
4. Turn in your self-assessment to the RECCS Program Manager at the end of the program.

RECCS RESEARCH SKILLS		
Conduct a literature review	Keep a detailed lab notebook	Read and understand journal articles
Develop a research question	Figure out the next steps in a research project	Defend an argument when asked questions
Develop a research methodology	Use statistics to analyze data	Calibrate instruments needed for measurement
Conduct observations in the lab or field	Conduct database or internet searches	Identify limitations of research methods and designs
Understand the theory and concepts guiding my research project	Problem-solving	A skill you gained that isn't listed here

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Research Skills Self- Assessment

1. Develop a research question
 - How is land-cover change disturbed due to urban development over the course of one year?
2. Develop a research methodology
 - Utilizing drone and satellite images captured months apart and digitizing, in a mapping software, the varied levels of disturbance present, then calculating and comparing the images' areas of disturbance.
3. Conduct observations in the lab or field
 - Visited West Stroh Gulch in person and took pictures of surrounding disturbed and undisturbed land, as well as witnesses drone flight.
4. Figure out the next steps in a research project
 - Quantifying and analyzing raw data from QGIS maps into Excell spreadsheet
5. Use statistics to analyze data
 - Statistics of disturbed areas collected over approximately one year to calculate percentage of disturbance to varied degrees and percent increase.
6. Calibrate instruments needed for measurement:
 - Calibrated QGIS coordinates to digitize maps.
7. Read and understand journal articles:
 - Read multiple reading materials and watched videos
8. Conduct database or internet searches
 - Searched for information pertaining to Urban Development, effects of Land-cover change, and the Hydrologic cycle.
9. Identify assumptions and limitations of research methods and designs:
 - Limited by condensed time of internship, as well as quality of satellite and drone images collected.
10. Understand the theory and concepts guiding the research project
 - Developed understanding of Water Cycle, Urban development, Green Infrastructure, Presenting scientific information, seeing hydrologic events like flooding as opportunities for research, etc.,
11. Problem-solving
 - Overcame challenges in learning QGIS Software, filling gaps in my understanding, and effectively designing and delivering presentations with information gathered.