Scaffolding the Research Project: Using building blocks to design and synthesize research project

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The Writing Across Curriculum team of which I was apart, presented a scaffolding for writing intensive success. The presentation was laid out as follows: research project plan, the proposal, a synthesis matrix and full research paper. At this conference, I presented the last part of the outline – full research paper. My topic was titled "*Using building blocks to design and synthesize research project*". My presentation was aligned to the course that I teach in Geography Department – GGS 303: Geography of Resource Conservation. This course provides analysis of world resources distribution, conservation, and preservation; and problems resulting from their natural occurrence and utilization. The main assignment for this class is a research project.

In this class, students are asked to develop any researchable topic they are interested in related to the themes of the course. For this research project, educational scaffolding assignments are provided to guide them towards completing this semester project. Clear assignment guidelines and tilted purpose statement for each small assignment help students to understand the key skills/knowledge they will gain and how they can be applied to the real-world issues.

Feedback at each stage focusing on areas where students did well and areas for improvement is provided. The research paper/project is broken down into smaller, more manageable parts. The assignment ideas are presented in form of a detailed rubric for each stage such as: selecting a topic, finding background information, source evaluation including annotated bibliography, draft and peer review, and final draft. Besides the rubric, a multi-layer grid for planning research is also designed to help in the process of this research project. A modified multi-layer for planning research project is presented below:

Modified multi-layer Grid for Planning Research Project

Assignment/Task	Relevant Course SLO(s)	Relevant Learning Support Task [LSTs] or Collaborative Activities to Support Learning	Learning Goals	Cross Modality	For Instructor Only: Prep or Feedback
What content or issue will students address? [Connect <> TILT Purpose Statement]	How are the assignments relevant to SLO? E.g. Evaluating conservation and planning methods using scholarly articles.	Activities or tasks that enable student learning, e.g. [sheltered, formative, applied, & (inter) active]. Group Discussion, Writing, etc.	What smaller skill or concept should students be able to know or do better today for their assignment/project? Articulate key terms, identify popular topic published within the discipline. [Extend knowledge and understanding]. Locate scholarly articles, collect and maintain research records using Zotero, etc.	What can students do in an alternate modality (e.g. Blackboard asynch.) in preparation or follow-up for assignment, watch documentary, etc.	What items are needed to conduct this week's activities/assignments? What will students need to prepare? Will there be feedback you need to provide (automated, peer, instructor)?

I have participated in two professional development training sessions this year – thus, the teaching research writing across curriculum (WAC) and the open course ReDesign Academy. Both sessions helped me to learn subject matter and develop strategies for effective research project assignments. The skills and knowledge gained from both training sessions helped me to share lessons learned with other participants at this year's Annual Innovations in Teaching & Learning (ITL) conference. Additionally, by attending and presenting at this conference, I plan to integrate the learning experiences especially active learning and new technologies approach into my course(s) to enhance student learning.