# *Research Design and Proposal Writing*

**Activity #2**

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# Due Date: *155hApril 2025, 12 noon*

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This assignment is an individual assignment and counts for 10% of your overall mark.

The goal of the activity is to write a detailed description of your methodology and your evaluation approach.

* METHODOLOGY SECTION
	+ At least 500 words, looking at some of the following questions:
		- What are you trying to achieve?
		- What are your research aims or objectives?
		- Are you testing a hypothesis, building a system, comparing algorithms, etc.?
		- What approach will you take and why?
		- Did you use a qualitative, quantitative, or mixed methods approach?
		- Is it experimental, design-based, data-driven, etc.?
		- Why is this approach appropriate for your goals?
		- What tools, technologies, or frameworks did you use?
		- Languages (e.g., Python, Java), libraries (e.g., TensorFlow, Scikit-learn), platforms (e.g., AWS, GitHub)
		- Why were these tools chosen?
		- What datasets or materials did you use?
* EVALUATION SECTION
	+ At least 350 words, looking at some of the following questions:
		- What will you evaluate?
		- Which parts of your system, model, or method will you test?
		- Do you focus on performance, usability, accuracy, robustness, etc.?
		- What metrics, benchmarks or criteria will you use?
		- What measures define success?
		- What is your evaluation method?
		- Will you run experiments, do benchmarking, user testing, case studies, or surveys?
		- Will it be quantitative, qualitative, or mixed?
		- How was the evaluation structured (A/B testing, comparisons, repeated trials, etc.)?
		- What data or participants did you use?
		- What datasets, environments, or user groups did you use?
		- If human participants were involved, how many, and how were they selected?
		- What type of results do you expect?
		- How will you present your findings clearly—tables, graphs, or summaries. Include both successes and issues. Highlight any trends or unexpected outcomes.
		- How will the results support (or challenge) your goals?
		- Does your system meet its original objectives?
		- What will the results suggest about your design choices or assumptions?
		- What are the limitations of your evaluation?
		- What are the constraints (e.g., small sample size, limited hardware, biased data)?
		- Could something affect the results?
		- Did you use baseline comparisons, user testing, or formal experiments?

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| **Submission of Activity:**You are required to electronically submit your activity on or before the due date. To electronically submit your assignment, e-mail it to Damian.X.Gordon@tudublin.ie with the subject heading: "RDPW Activity 2" as well as submitting on Brightspace. |

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| **Lateness Policy**: If you submit your activity late, you will be marked the normal way, and then I will have to multiply your result by 0.6. |