# *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](mailto: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. |