# **TIMELINE: P-Curve Analysis**

**Topic: XXX**

**NAME: XXX**

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| **STEP** | **EXPECTATION** | **TO BE COMPLETED BY** | **CHECKLIST** |
| PRE-PROPOSAL PLANNING | | | |
| **Preliminary research** | Understand if there’s enough literature on the topic |  | Can you identify 20-30 papers on the topic? |
| **Refine the topic of interest** | Formulate a clear research question |  | Can your question be answered but is not too easy to answer? Is it researchable? Is it analytical? Can you rephrase it into a ‘how’ question? |
| **Familiarize yourself with p-curve analysis** | General understanding of how the method works |  | Do I know what ‘p-curve analysis’ means? |
| **Meet with your supervisor to discuss the topic suitability, research question, and methods** |  |  | Did you leave the meeting with a good understanding of your question + a good sense of direction? |
| **PROPOSAL** | | | |
| **Read 3-5 papers that seem the most interesting to you out of the literature that you identified** | Get a sense of general findings in the field and how can your work contribute to it |  | Can you identify theories and findings that could partially answer your research question? |
| **Writing the proposal** | 1-3 page document that demonstrates your understanding of your research question, background materials, thesis goal, and significance, approach/methodology, planned analysis, and preliminary structure |  | Is my research question concise and realistic? Did I describe how I will tackle the question? Did I briefly summarize the general knowledge of the field? What are my initial instincts about the findings? |
| **Meet with the supervisor to review the proposal and finalize the research plan** |  |  | Do I understand what literature to search for now? |
| **LITERATURE REVIEW AND ANALYSIS** | | | |
| **Search for relevant literature** | Identify the journal + papers that are relevant to your analysis |  | Did I document my search criteria?  Did I save the papers I intend to read in Zotero library?  Do I have enough material to work with? |
| **Familiarize yourself with the literature** | Read through the materials gathered and start picking out common themes and debates |  | Is this relevant to my research question or just good-to-know? How can I structure my thesis now? |
| **Summarizing literature** | Summarize the results via qualitative (e.g., descriptive, tabular) and/or quantitative methods (e.g., frequencies of significant findings, weighted effect sizes, meta-analysis). |  | Did I document all the papers that I read? What does this summary of results signify? |
| **P-curve** | Conduct the p-curve analysis |  | Do I understand the output? |
| **DRAFT** | | | |
| **Finish the first draft** | Introduction + Methods + Literature Review at least 75% done |  | Did I proofread the work at least via a grammar editor?  Can the reader clearly identify the research question and a narrative thread? |
| **Send the first draft to the supervisor** | Share a google doc and continue advancing your work while awaiting feedback |  |  |
| **Review and incorporate feedback** | Seek to schedule a meeting if necessary |  | Do I understand the comments? Do I know how to address them? |
| **Finish formatting** | Add front page, contents, appendices, charts, reference list, etc. |  | Does it match the COBE template? |
| **SUBMIT THE THESIS ON LEARN** | | | |

# **TIMELINE: Literature Review**

**Topic: XXX**

**NAME: XXX**

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| **STEP** | **EXPECTATION** | **COMPLETE BY** | **CHECKLIST** |
| PRE-PROPOSAL PLANNING | | | |
| **Preliminary research** | Understand if there’s enough literature on the topic |  | Can you identify 20-30 papers on the topic? |
| **Refine the topic of interest** | Formulate a clear research question |  | Can your question be answered but is not too easy to answer? Is it researchable?  Is it analytical? Can you rephrase it into a ‘how’ question? |
| **Meet with your supervisor to discuss the topic suitability, research question, and methods** |  |  | Did you leave the meeting with a good understanding of your question + a good sense of direction? |
| **PROPOSAL** | | | |
| **Read 3-5 papers that seem the most interesting to you out of the literature that you identified** | Get a sense of general findings in the field and how can your work contribute to it |  | Can you identify theories and findings that could partially answer your research question? |
| **Writing the proposal** | 1-3 page document that demonstrates your understanding of your research question, background materials, thesis goal, and significance, approach/methodology, planned analysis, and preliminary structure |  | Is my research question concise and realistic? Did I describe how will I tackle the question? Did I briefly summarize the general knowledge of the field? What are my initial instincts about the findings? |
| **Meet with the supervisor to review the proposal and finalize the research plan** |  |  | Do I understand what literature to search for now? |
| **LITERATURE REVIEW AND ANALYSIS** | | | |
| **Extend your body of literature** | Identify the most relevant papers (ideally published in the last 5 years in high-impact journals or have a lot of citations) |  | Did I document my search criteria? Did I save the papers I intend to read in a reference management software? Do I have enough material to work with? |
| **Familiarize yourself with the literature** | Read through the materials gathered and start picking out common themes and debates |  | Is this relevant to my research question or just good-to-know? How can I structure my thesis now? |
| **Summarizing literature** | Summarize the results via qualitative (e.g., descriptive, tabular) and/or quantitative methods (e.g., frequencies of significant findings, weighted effect sizes, meta-analysis). |  | Did I document all the papers that I read? What does this summary of results signify? |
| **Send the outline to your supervisor** | Map out your line of argumentation in bullet points. After you’ve written the first few pages, choose the strongest two and share them with your supervisor |  | Is my narrative persuasive? Can I see the flow of my argument? Are the transitions between points logical? |
| **DRAFT** | | | |
| **Finish the first draft** | Introduction + Methods + Literature Review at least 75% done |  | Did I proofread the work at least via a grammar editor?  Can the reader clearly identify the research question and a narrative thread? |
| **Send the first draft to the supervisor** | Share a GoogleDoc and continue advancing your work while awaiting feedback |  |  |
| **Review and incorporate feedback** | Seek to schedule a meeting if necessary |  | Do I understand the comments? Do I know how to address them? |
| **Finish formatting** | Add front page, contents, appendices, charts, reference list, etc. |  | Does it match the COBE template? |
| **SUBMIT THE THESIS ON LEARN** | | | |

# **TIMELINE: Empirical Study**

**Topic: XXX**

**NAME: XXX**

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| **STEP** | **EXPECTATION** | **COMPLETE BY** | **CHECKLIST** |
| PRE-PROPOSAL PLANNING | | | |
| **Preliminary research** | Understand if there’s enough literature on the topic |  | Can you identify 15-20 papers on the topic? |
| **Refine the topic of interest** | Formulate a clear research question |  | Can your question be answered, but is not too easy to answer? Is it researchable?  Is it analytical? Can you rephrase it into a ‘how’ question? |
| **Meet with your supervisor to discuss the topic suitability, research question, and methods** |  |  | Did you leave the meeting with a good understanding of your question + a good sense of direction? |
| **PROPOSAL** | | | |
| **Read 3-5 *empirical papers* that seem the most interesting to you out of the literature that you identified** | Get a sense of general findings in the field and how can your work contribute to it?   * Replication and extension of a study (e.g, Adding a new IV, a different DV) * Explore a new design/RQ |  | Can I identify theories and findings that could partially answer my research question?  Why and how an empirical study can help to answer my research question? |
| **Writing the proposal** | 1-3 page document that demonstrates your understanding of your research question, background materials, thesis goal, and significance, approach/methodology, planned analysis, and preliminary structure   * have a preliminary experimental design |  | Can I identify relevant theories and findings?  Why and how can an empirical study answer my question?  Is my research question concise and realistic?  Do I have a preliminary experimental design?  ​ |
| **Meet with the supervisor to review the proposal and finalize the research plan** |  |  | Do I understand what literature to search for now?  Do I know the method that I want to use to collect data? Do I have access to the sample? Do I have the basic required skills for the implementation and analysis of the proposed study? |
| **LITERATURE REVIEW AND PRELIMINARY EXPERIMENTAL DESIGN** | | | |
| **Extend your body of literature** | Identify the most relevant papers (ideally published in the last 5 years in high-impact journals or with a lot of citations) |  | Did I document my search criteria? Did I save the papers I intend to read in a reference management software? Do I have enough material to work with? |
| **Familiarize yourself with the literature to design an experiment** | Read through the materials gathered and start picking out common themes and debates  Identify theories and the most relevant papers to your RQ.  Design a detailed experiment that can answer your questions, and hypotheses. |  | Is this relevant to my research question or is it just good-to-know?  Do I have theories from which I can derive hypotheses?  Do I have enough knowledge to finalize the design and experiment?  Does my experiment contribute to the literature? |
| **Send the outline to your supervisor** | Map out your line of argumentation in bullet points, including your **final RQ**, **preliminary experimental design,** and **hypotheses**. After you’ve written the first few pages, choose the strongest two and share them with your supervisor. |  | Is my narrative persuasive? Can I see the flow of my argument? Are the transitions between points logical? Is my design feasible within the timeframe? |
| **DESIGN AND IMPLEMENTATION** | | | |
| **Implementation** | Implement a study based on literature and RQ  Internal and external validity considerations  Practical checklist for implementation |  | Can I collect the required data?  Do I know how to analyze data using R/STATA/Python?  Implement your experiment (in Qualtrics, PsychoPy, oTree, etc) |
| **Sample characteristics** | Identify and estimate your sample size   * How do you want to collect data * Do the power analysis to estimate your sample size (optional) |  | How many participants do I need?  Can I access them? |
| **Plan your analysis** | How do you want to analyse your data?   * Are you familiar with R/STATA/Python to analyse your experimental data? |  | Do I store all my required variables? |
| **Send the design to the supervisor** | Share the experiment with your supervisor. Meanwhile, **write your method section.** |  |  |
| **DATA COLLECTION AND ANALYSIS** | | | |
| **Pilot data collection** | Pilot your study with a small group of friends (3-5). Ensure that the instructions are clear and assess if you are capturing the necessary data for your analysis. |  | Do I have a working experiment?  Are my experiment instructions understandable for everyone? |
| **Pre-register your study in AsPredicted.org** | Write a pre-registration draft and check with your supervisor Pre-register study on AsPredicted.org  Submit it to AsPredicted.org and keep it **Private!** |  | Can I answer all asPredicted.org questions?  Does my supervisor review the pre-registration (before submission) and approve it?  Do I have a pre-registration on asPredicted.org? |
| **Send the final experiment to the supervisor** | Share the experiment with your supervisor |  | Get the approval for your data collection |
| **Collect data** | Collect data from your sample |  | Do I have enough data for my (pre-registered) analysis? |
| **Analyse** | Analyze your data and interpret it in accordance with your research question (RQ) and hypotheses. Utilize data visualization techniques, engage in confirmatory analysis, and supplement your findings with exploratory analysis.  Write your result section |  | Do I have the result for all my main hypotheses?  Do I have the result for my exploratory analysis?  Can I write the result section of my study? |
| **DRAFT** | | | |
| **Finish the first draft** | Introduction + Literature Review + Methods + Results + Discussion at least 75% done |  | Did I proofread the work at least via a grammar editor?  Can the reader clearly identify the research question and a narrative thread? |
| **Send the first draft to the supervisor** | Share a GoogleDoc and continue advancing your work while awaiting feedback |  |  |
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