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# **Components of the Rubric**

	4 S	core → (3)	2	1	0
-RQ -Hypothesis -Rationale: Personal reasons and citations  Criterion	1. A well-written, succinct RQ 2. A complete hypothesis that is directly related to the RQ and includes a "because" statement. 3. A strong rationale that piques the reader's interest by providing 2 relevant and convincing personal reasons for why the study was conducted. 4. Two references /citations	Includes (in given order):  1. A well-written, succinct RQ  2. A complete hypothesis that is directly related to the RQ and includes a "because" statement.  3. A rationale that includes at least 1 personal reason.  4. Only 1 reference /citation from secondary research is actually woven into	Includes:  1. A complete RO 2. A partially aligned or incomplete hypothesis 3. A rationale with references /citations presented as links but not integrated into students' writing to present a convincing argument for why this research is important for their city / community.	The rationale does not include any citations that connect the research to the bigger picture or show the importance of the research to the city.  Condition1	Is absent  OR  ONLY includes the RQ  OR  ONLY includes the hypothesis
Indicator —	from secondary research that fortify the rationale and are woven into the narrative to present a convincing argument for why this topic is relevant to the city i.e., connects to the bigger picture  ***********************************	the narrative to present an argument for why this topic is relevant to the city. (This applies even if multiple citations are included in the bibliography but not referenced in the text to build a case)	OR  The introduction gives too much information on findings or nethods—reads more ke a conclusion or nethods section rather than the introduction	→ Condition2	



#### **Guidelines for Using the Rubric**

- 1. This rubric includes 8 criteria for assessment that will help you assess the different sections of the paper: title, abstract, introduction, methods, findings, discussion, reflection and paper presentation.
- 2. Each criterion is assessed on a scale of 0-4.
- 3. Read the paper once in entirety before using the rubric.
- 4. Read the entire rubric once before you start assessing the paper.
- 5. Assess each section of the paper by referring to the corresponding criterion and studying the indicators for that section. Start with the column for "4." In order to get a score of "4," every indicator in that column MUST be met. If ALL the indicators are NOT met, check the column for score "3" and so on. For example:
  - a. In order to score a "4" for the Title Page, all four indicators MUST be true.
  - b. If the title page includes a good title, author names and school name (but no mentor name) but is NOT on a separate page, the score will be a 2 as all indicators in the "3" column are not met.
  - c. If the title page includes a good title, ison a separate page BUT includes only the authors names (no mentor and no school names), the score is a "2" because all indicators are not met for a score of "3."
  - d. If there is ONLY a title with no other information, the score is a "1" even if it's on a separate page.
- 6. The word "OR" indicates that if even ONE of the conditions is true in that column, THAT is the final score. For example:
  - a. In order to get a score of "4" the abstract MUST meet every single indicator in the 4 column.
  - b. If the abstract includes all the components of a good abstract, is on a separate page, is written in paragraph form but has a word count of 350, the score is a "1."
  - c. If the discussion section includes the following: A well written conclusion statement, a statement on whether the hypothesis is true or not and one implication of the research for the city the score would be a 1. This is because in order to get a "3" or a "2" the section must also include one more indicators from the given options.



## **Criteria and Indicators**

	4	3	2	1	0
	Includes:	Includes:	Includes:	Includes only a	Is absent
Title Page	<ol> <li>A well-thought through, creative title that describes the research accurately and piques curiosity.</li> <li>Full names of all authors, with the teacher listed last.</li> <li>Name of the school.</li> <li>Title page is a separate page at the beginning of the document.</li> </ol>	<ol> <li>A logical title aligned to the research.</li> <li>Only two of the following:         <ul> <li>All author names</li> <li>Mentor name</li> </ul> </li> <li>School name</li> <li>Is a separate page at the beginning of the document</li> </ol>	<ol> <li>A title that seems partially aligned to the research.</li> <li>Only one of the following:         <ul> <li>Author names</li> <li>Mentor name</li> </ul> </li> <li>School name</li> </ol>	title.	OR  Title is inaccurate and doesn't align with the research.



	4	3	2	1	0
	Includes all given components of a	1. Includes any 5 of the 6	Includes any 4 of the 6	Includes 3 or	Is absent
Abstract	good abstract:	components of a good	components of a good	less	
	A. A clear, articulate RQ in	abstract (A-F).	abstract (A-F).	components	OR
-RQ	question form	2. Abstract is on a separate		of a good	
-Hypothesis	B. A complete hypothesis	page	OR	abstract	Does not
-2 implications	u	3. Abstract is written as one		(A-F).	include any
-Summary of	C. A statement whether the	paragraph.	Components are not in a		relevant
methods	hypothesis was proven true		logical order making it	OR	components
-Summary of	or false.	OR	cumbersome for the		of a good
findings and	D. A summary of the methods in		reader to understand the	Is more than	abstract i.e.,
conclusion	2-3 sentences.	Abstract is between 255-290	summary of the research.	320 words.	the abstract
	E. The most important findings	words.			says
	and conclusion.		OR		something
	F. 2 implications of the research				completely
	for the city.		Abstract Is between 291-		different
	******		320 words.		from what is
	1. Abstract is < 250 words. Word				expected.
	count is mentioned at the end		OR		
	of the abstract.				
	2. Abstract is on a separate page,		Abstract is written in a		
	after the title page but before		non-paragraph format		
	the rest of the report.		e.g., bullet points,		
	3. Abstract is written as one		numbered statements,		
	paragraph.		etc.		



	4	3	2	1	0
Introduction  -RQ -Hypothesis -Rationale: Personal reasons, 2 secondary references, connection to SDG	A well written introduction that flows smoothly and includes all of the following in given order:  1) A well-written, succinct RQ that mentions the selected SDG and corresponding strand  2) A strong rationale that piques the reader's interest by providing:  a. 1 relevant and convincing personal reason for why the study was conducted.  b. 2 references from secondary research that show why the RQ is important for the students' city. The references fortify the rationale and are woven into the narrative to present a convincing argument for why this topic is relevant to the city i.e., connects to the bigger picture.  c. A clear justification for how the RQ is aligned to the selected SDG and corresponding strand.  3) A complete hypothesis that is directly aligned to the RQ and includes a "because" statement. The hypothesis is testable.	To get a score of 3, the section MUST include:  1. A well-written, succinct RQ that mentions the selected SDG and corresponding strand.  2. A complete hypothesis that is directly aligned to the RQ and includes a "because" statement. The hypothesis is testable.  The rationale is present but it lacks the rigor¹ needed to get a score of "4"  OR  The section includes all the components of a good introduction but doesn't read very well as a coherent narrative.	To get a score of 2, the section MUST include a well-written, succinct RQ though it may or may not mention the SDG connection. If there is no RQ mentioned, students get a score of "1." If there is a research question, check for the following. If any of the conditions are met, you can give a "2"  1. There is an incomplete or partially aligned hypothesis / it is not clear how the hypothesis is testable.  OR  2. There is a rationale with relevant references /citations presented ONLY as links or bullet points but not integrated into the main body (the paragraph).  OR  3. Overall, the rationale is not written very well and makes a weak case for why this research is important to do	To get a score of "1" any one or more of the following conditions could be true: 1. There is no RQ 2. There is no hypothesis 3. There is no rationale 4. There is a rationale but it does not include any citations or the citations /references included are not relevant to the RQ/ hypothesis  OR  The introduction gives too much additional information that is confusing, irrelevant and distracts from the main point of an introduction section.	Is absent  OR  ONLY includes random information that belong in other sections of the paper (methods, findings, discussion)



	4	3	2	1	0
Methods  -Data collection methods - Data collection tool -Appendix	Includes all of the following components:  1. At least 2 data collection methods that are fully aligned, well suited & sufficient to answer the RQ in a reliable manner.  2. Detailed description of all data collection methods  3. An explanation for why those methods were selected over other potential methods. e.g., is it really necessary to do a survey? How will this type of data help you answer the RQ?  4. Rigorous data collection tools that consider key variables in their design & enable thorough data collection² that lead to forming reliable conclusions.  5. An appendix at the end of the entire document with the actual tools used - interview questions, survey, observation template, etc.	The section includes:  1. One well-described, justifiable and aligned method that is appropriate to answer the RQ but needs validation from one more source of data e.g, students could have included one more type of method to add greater validity to their findings.  2. A rigorous data collection tool that considers key variables in its design & enables thorough data collection.  3. An appendix at the end of the entire document with the actual tools used.	1 or more_data collection methods are mentioned and described well AND they are aligned to the RQ BUT  The rigor of data collection is not sufficient to draw very reliable conclusions from the data i.e., the data collection tools could've been more rigorously designed e.g., The sample size or No. of observations could've been greater, an expert could have been interviewed, the survey could've had a more questions or better designed questions, etc.  OR  The section ONLY includes a generic or broad overview of the data collection method/s. Some key details are missing & the reader is left curious about some aspects of data collection.  OR  All the conditions for getting a "4" are met but the actual research tools are NOT attached in an appendix at the end or anywhere else in the paper.	The methods selected to answer the RQ are only partially aligned for that RQ (e.g., one of the two stakeholders wrong was wrong or required field visits were not done, etc.)  OR  Methods selected are appropriate but many details are missing. The description of the methods or the rigour of the tool leaves the reader with many questions about how the research data were actually collected, if they are reliable or why certain methods were selected.	Is absent  OR  Is written in a manner that it is impossible to figure out how the data were collected.  OR  None of the methods chosen are aligned to the RQ and are not the best choice to answer this question <sup>3</sup> .



	4	3	2	1	0
Findings  -Data Summary  -Data Analysis	The section presents a rigorous, in-depth analysis of the data, described through clear, meaningful "findings" statements that answer the RQ. There is a clear link between the data analysis and the statements.  ALL the findings are insightful and either shed new light or present new or a more nuanced/contextualized perspective on 'well-established or well-known facts' i.e. the findings do not tell us something that is already blatantly obvious.	The section presents a rigorous, in-depth analysis of the data, described through clear, meaningful "findings" statements that answer the RQ BUT not all findings are insightful and "new"  OR  The section includes the	Includes data presented in a logical and easy to read format - tables, graphs, figures, etc.  BUT  Authors are not able to show clear connections between the data and their insights / findings.	Only raw data are included in the paper without organizing them in any way or showing HOW they were analyzed. Authors make broad claims but the reader has to go through the raw data to make	Is absent  OR  Findings are presented as statements but no supporting data are included in the paper. This includes findings from secondary
	AND	following components of a good findings section:  a. Appropriate amount	OR	sense of them	research also.
	The Section Includes:  a. Appropriate amount and type of data as described in the methods section to reliably answer the RQ.  b. Data presented in a logical & easy-to-read format - tables, graphs, figures, etc. For example, percentages could be presented via pie charts, bar graphs, tables.  c. Figures & tables labelled appropriately with a title for each figure (Figure 1: Comparison of temperatures across suburbs, etc.).  AND  The entire section is easy to understand, flows in a logical manner and leaves the reader with complete clarity on what the findings are.	and type of data as described in the methods to reliably answer the RQ b. Data presented in a logical and easy to read format - tables, graphs, figures, etc.  BUT Figures/tables are labelled incorrectly or labels /titles are missing.	The findings/ analysis presented feels incomplete or does not fully answer the RQ  OR  The findings are 'obvious' or 'well established facts' that do not present anything new or insightful to the reader.	<ol> <li>Full audio/video clips of interviews</li> <li>Raw survey or observation data</li> <li>Full transcripts of interviews</li> <li>Photos</li> </ol>	



	4	3	2	1	0
Discussion  -Conclusion statement -Implications -Solutions/ Action Steps -Factors affecting RQ -Test of the Hypothesis	Includes -  1. A correct, succinct, conclusion statement that directly answers the RQ.  2. A statement that mentions whether the hypothesis was proven right or wrong.  3. At least two meaningful, authentic implications of the findings for the students' community, city or a broader context.  4. A clear description of two factors that could have influenced the results, such as sources of error or bias in interpretation.  5. Two potential solutions and/or action steps that students can take after the research is complete.  6. One new research question that has emerged from this research i.e. what new questions are coming to students' minds after completing this research.	Includes:  1. A correct, succinct conclusion statement that directly answers the RQ.  2. A statement that mentions whether the hypothesis was proven right or wrong.  3. At least one implication of this research for the community, city or a broader context, that it is convincing and authentic.  4. One of the following:  One factor that could have influenced the results, such as sources of error or bias in interpretation.  One potential solution and/or action step that students can take after the research is complete.	Includes:  1. Broader implications that are related to the research.  2. Any one of the following components:  • A conclusion statement  • Factors affecting their research  • next steps/ solutions  • New RQ	Includes only two of the components of the discussion section:  • correct conclusion statement • implications • next steps/ solutions • New RQ • Factors influencing their research	Includes less than two components of a discussion section  OR  The conclusion is completely misaligned with the RQ and not based on the findings.  For example: RQ: "How much money do people donate to religious institutions?"  Conclusion: "People should not donate their hard earned money to religious institutions."



	4	3	2	1	0
Reflection  -Group reflection  -Individual reflection	Includes:  1. A completed group reflection template <sup>4</sup> , marked on all indicators.  2. Well described examples that showcase every skill and indicator marked by the students in the template.  3. Individual reflections from all authors based on the given questions. <sup>5</sup>	Includes:  1. Completed group reflection template marked on all indicators.  2. Well described examples that showcase at least 75% skills in the template.  3. Individual reflections from all authors based on the given questions.	Includes: 1. Reflection template marked on at least 75% indicators. 2. Well -described examples that showcase at least 50% skills.	Includes:  1. Reflection template marked on at least 50% indicators.  2. Well-described examples that showcase at least 25% skills.	Is absent  OR  Reflection template is marked on less than 50% indicators.

<sup>&</sup>lt;sup>4</sup> See Appendix A

<sup>&</sup>lt;sup>5</sup> See Appendix B



	4	3	2	1	0
Paper Presentation  -Neatness -Flow -Grammar, spellings -Section titles -Page numbers	Paper includes -  1. Content typed in size 12 font or written VERY NEATLY in clear handwriting (ONLY if NOT in English)  2. Portrait mode, using Microsoft WORD only with a white background  3. Section titles in bold or highlighted to help differentiate between different sections.  4. All pages are numbered.  5. There are less than 5 spelling mistakes or grammatical errors in the whole paper. All sentences are fluent and easy to read.  AND There is a flow to the entire paper where sections naturally transition into each other and the reader is able to follow easily.	Paper includes –  1. Content typed in size 12 font or written neatly in clear handwriting (ONLY if NOT in English.)  2. Portrait mode, using Microsoft WORD only with a white background  3. Transitions between sections may be abrupt. Some sections may be missing titles or there are too many sections and subsections making it confusing.  4. Some page numbers are missing.  5. There are less than 15 spelling and/or grammatical mistakes in the entire paper.	FORMATTING The content is not typed in a single font or there is no uniformity in formatting across the entire paper. For written papers, handwriting is not consistent or is too big or too small. Paper is not typed in Word or is not in portrait mode or the background makes it difficult to read  OR The flow is uneven; it is difficult to see the connections between different sections.; Page numbers not included.  OR There are more than 20 spelling and/or grammatical mistakes /errors in the entire paper.	The paper is very difficult to read. Sections do not flow naturally into each other. Reading is choppy, not smooth.  OR  There are more than 30 spelling and/or grammatical mistakes/ errors in the entire paper.	The paper is written poorly with more than 50 spelling and/or grammatical mistakes in the entire paper  OR  Major sections of the paper seem to not be written by the students.



## **Appendix A: Group Reflection Template**

**GROUP REFLECTION** - As a group fill this indicators checklist where 4 means STRONGLY AGREE, 3 means AGREE, 2 means DISAGREE and 1 means STRONGLY DISAGREE

STRUNGLY DISAGREE	1			_	
Indicators -Collaboration	4	3	2	1	Example
Every member of the team was always prepared, well informed on the project topic and ready to work.					
Every member of the team <u>always</u> completed assigned tasks on time without having to be reminded.					
As a team, we created a detailed task list that divided project work reasonably among the team members.					
As a team, we set a schedule and tracked progress toward goals and deadlines.					
As a team, we used time and ran meetings efficiently; kept materials, drafts, notes organized					
As a team, we developed ideas and created products with the involvement of <u>all</u> team members					
Indicators Communication					
Every member of the team listened to others' ideas without interrupting; responded positively to ideas even if rejecting.					
Team members communicated openly and treated one another with respect.					
Every member of the team felt safe and free to seek assistance and information, share resources and insights, provide advice, or ask questions of each other.					



#### **Appendix B: Individual Reflection Questions**

Individual Reflection - Each student in the group individually answers the following two questions -

- 1. Describe one thing which was the most enjoyable for you during the CaL project.
- 2. Describe one thing which you struggled with the most during the CAL project.
- 3. What skills did you develop during the CaL process? Explain with one example.