2024 ASSESSMENT REPORT
SDI1315117 STUDENT DIRECTED INQUIRY

The external assessment covers four sections in two main folios:

1 An Inquiry Folio, consisting of four parts –

1.1 Executive Summary

1.2 Inquiry Proposal

1.3 Inquiry Report

1.4 Inquiry Presentation

2 The Inquiry Oral Presentation, which is an oral assessment supported by the digital file (1.4 above) of the presentation included with the submission of the Inquiry Folio.

General Comments

On the TASC SDI1315117 course webpage, in a tab titled "Supplementary documents," the External Assessment Specification provides a description of the work requirements which must be followed by candidates to be meet the examinable elements in the external examination.

In the folio sections and the oral presentation, candidates are encouraged to demonstrate that they know, and can discuss, and reflect upon:

- the class teaching of the course content assisting in the choice, adoption and refining of a research question for an inquiry proposal, the research design, the research tools, or the methods adopted
- the critical task of bringing the inquiry research to a conclusion through an analysis of the findings and recommendations for future action, all relating back to the research question
- each set of relevant Criterion and Elements in each of the folio sections.

The external examiners will not assess the internal Criterion 2 and Criterion 5. Too much time and emphasis on these areas, such as project management skills or personal capabilities will detract from the limited oral presentation time for the critical criteria in an external assessment of:

- Criterion 1: resolving a transdisciplinary inquiry question
- Criterion 3 and Criterion 4: planning and conducting the research methods, including a literature review and making ethical decisions
- Criterion 6 and Criterion 7: creative and critical thinking in using and analysing primary and secondary sources, drawing conclusions and reflecting on those processes for the transfer of knowledge into new context
- Criterion 8: communicating in a range of contexts or modes.

Additional teachers and/or subject mentors having a role as a subject expert will provide their own *Subject Expert Declaration Form* in which they complete a statement indicating an acknowledgement that they have read and understand the course, the TASC External Assessment Rule 4 (a-b) and Academic Integrity of the Candidate Declaration Form. This form is countersigned as a verifiable acknowledgement by the subject teacher or course co-ordinator that there is no conflict of interest and submitted to TRACS with the folio.

Folio Component

1 An **Inquiry Folio**, consisting of four parts –

1.1 Executive Summary (300 – 500 words)

1.2 Inquiry Proposal (minimum 1000 words)

1.3 Reflective Journal and Inquiry Report (maximum 15000 words for parts 1.1 – 1.3)

1.4 Inquiry Presentation Slides (digital record or zipped file of slides, multimodal presentation, audio/video or website, exhibition material).

The 15,000-word limit for the Inquiry Report does not include the title page, contents list, the list of tables and figures; the acknowledgements, the subject expert, or mentor declaration form; intext references or the reference lists and bibliographies; additional material in the body of the report, such as charts, tables, diagrams, the appendices, questionnaire or interview survey forms; the Communications Log, or a Reflections Journal [diary].

Successful responses in the external assessment fully utilise both the maximum word count for the Inquiry Report and the maximum time allowed for the Inquiry Presentation. These successful responses provide and demonstrate understanding of each of the Elements in the six (6) Criteria externally assessed – Criterion 1,3, 4, 6, 7 and 8.

Responses need to demonstrate their theory-to-practice application of research methodologies, such as a qualitative or quantitative or mixed methods study, or an investigative, narrative or case study; and then reasons for their choice of research tools such as interviews, questionnaires, or surveys throughout their report in the required Reflections Journal or Communication Log. Summarising these research decisions in the written form or evaluating by using a SMART or SWOT table can be a strength of an Inquiry Report.

The presentation file included in the inquiry folio, such as MS PowerPoint presentation slides for support of the Oral Presentation must not be edited or extended once they have been uploaded to TRACS. It is intended to provide depth and support the oral presentation, so it is useful to use meaningful slide headings or prompts, such as Research Question, Transdisciplinary Focus, Literature Review and Methodology, Survey Results, Findings, Reflections on the evidence for each Criteria, and Communications Journal/Log.

Oral Component

The **Inquiry Oral** Presentation is an oral assessment supported by the digital file of the presentation included with the submission of the Inquiry Folio. It may be the oral presentation of the digital record or zipped file of slides, multimodal presentation, audio/video or website, exhibition material.

For the Inquiry Presentation, thirty (30) minutes is allocated with an additional ten (10) minutes for assessment panel questions and candidates' answers at the examination centres of each school or college provider.

Five (5) minutes at the beginning and at the end of each presentation is available for the candidates' setting up, whether the multimodal settings and data projection devices or the physical display of product/s or the material evidence. The evidence display is considered as supplementary or a prop which must be referred to in the report's slides, or its appendices. through a photographic image capture or other digital formats. A physical prop or product will not be accepted alone or be received alone for external assessment by the examination panel.

Successful responses in the Oral Presentation provide evidence of the inquiry process, and an objective or analytical summary of the generation of new ideas or new knowledge.

Criterion 1: apply self-directed, transdisciplinary inquiry skills

Successful responses show that a transdisciplinary lens or focus transcends, crosses, or dissolves the boundaries between disciplines (e.g., historical, scientific, and technological, mathematical, or STEM, humanities, aesthetics, philosophical or religious ethics), in a context of real-world problems and/or themes where the candidate can develop new learnings. Specialist knowledge in theories, concepts, methodology and terminology define a discipline, not the skills.

Less successful responses failed to take this problem-centred or inquiry research approach and resorted to listing linear skills, such as developing their creative writing, make a budget plan, creating an artistic piece, using ICT skills, or collating a survey as a mathematical task. These latter skills alone do not constitute an acceptable approach to the critical thinking that constitutes a "transdisciplinary inquiry skills" focus where outcomes are only possible through the intersection or cutting across the boundaries of the traditional or specialist discipline knowledge, theory, and methodology.

Successful responses will also demonstrate students' initiative and student agency in their responses. Such responses show why the overarching framework and intent of this course is to use two or more disciplines, to integrate or intermesh the different disciplines of knowledge, many of the problems in society, or even different ways of thinking and seeing. It is important to spend time, early in the academic year, understanding how research is an integral component of innovation and problem-solving strategies in real-life situations in society or local communities.

The transdisciplinary nature of human inquiry in society – life, work and research – can transcend the traditional subject studies or the tertiary subject specialisation boundaries in each substantive discipline. The aim is to examine or construct new knowledge for more realistic, economic, creative, and new meanings in natural contexts. Transdisciplinarity can then involve the rapid generation of new ideas or solve authentic real-world or complex problems for public good, as in the science, technology, engineering and environmental design, sustainability and social welfare research, or social wellbeing in national health or medical research.

Criterion 3: determine research methodologies and utilise appropriate tools and methods

Successful responses analyse or select appropriate research methodologies, often complex ones, and then design or apply research methods and tools to explore the problems, challenges or solutions identified in the investigation of their research question. In this process, successful responses may communicate succinctly with mentors or other researchers, and critically analyse the usefulness and effectiveness of these sources, databases, and other resources.

A research proposal can be stated in the form of a title, such as a proposition, hypothesis, or a statement that invites exploration; however, one research **question** can still enable further questions for closer interrogation, such as:

- What is the role of...
- What evidence is there to support...
- What is the impact of...
- Is there a correlation between...

Successful responses identify that research questions need information sources to backup or support the candidate's belief in the feasibility or value of undertaking the inquiry, such as a background research or literature review. Even though research is not always driven by a research question that steers the design and choice of research methods, a question may still arise for further investigation. Questions can concern description, function, characteristics or purpose, prediction, understanding, exploration, causation or cause-effect relationships, testing, or explanation, comparisons, or correlations.

Transdisciplinary questions often draw attention to both non-numerical and numerical, or mixed methods rather than just the causal 'What?' or 'Why?' questions. They often require both qualitative and quantitative methods – that is, a "mixed methods" approach in addressing a question. Methodologies for qualitative research differ widely in all areas – the arts, sociological, psychological, cultural/anthropological, linguistic, historical, economic, scientific, and technological disciplines. Similarly, theories of quantitative research methods and tools are varied, such as those in educational, ethnographic, ecological, environmental, or medical/health fields; and with the science, technology, engineering and mathematical (STEM) fields particularly with the advances of artificial intelligence (AI), human interface technologies and computational literacy.

Different methodologies bring different conventions in referencing styles, which are constantly being updated. For that reason, TASC accepts the Harvard referencing style as a default for covering the cross-disciplinary needs of transdisciplinary studies.

Successful responses demonstrate an understanding of the language of research, such as **qualitative data, quantitative data, primary data, secondary data, validity, reliability, and triangulation** using multiple or mixed methods to check the validity of findings, especially if using small school-based or informal surveys in social media. Thinking around methodology is different to resolving the mix of research tools or methods that can be useful to collect data. These tools or methods are variously questionnaires, interviews, focus groups, experiments, or investigative analyses.

Criterion 4: apply ethical understanding throughout all phases of the inquiry

Successful responses demonstrate an ethical approach to collecting and compiling information throughout all phases of the inquiry. It may involve assessing other research reports or evidence:

- in a 'literature review' of existing literature (print and digital) or community expertise
- observing protocols and ethical guidelines in conducting social research, such as surveys with reliable tools and samples
- providing valid results and reaching conclusions through either quantitative or qualitative research methods that can withstand scrutiny, be reliable and replicable, and are compatible or have a 'line of sight' back to the research question
- providing a verifiable set of communications through the Communications Log and the Reflective Journal to indicate a process of reflection throughout the year on the effectiveness or changing research question or the methodology; any changes to the proposal, information sources or data collected
- in reporting outcomes that are aligned directly to the research question and problem-solving
- following the default Harvard or other referencing conventions, not only in the reference and/or bibliography lists but how information is reported throughout the body of the documentation – the title page, the contents list, the list of figures or tables, how they are labelled, the in-text references, the bibliography, appendices including the description of Generative AI tools or methods used, such as in the Communications log.

Successful responses on this criterion show an understanding of the value of a literature review and referencing conventions such as Harvard for standard in-text citations to be able to easily acknowledge others' thinking. They provide clear and consistent styles of tabulating data or devising figures and tables in their results section; provide an indication of the size of their survey population. They then provide effective analysis and synthesis of their results; and include the ethics 'consent forms' for the information of those participating in surveys.

Less successful responses did not retain a focus on their research question/s throughout all phases of the study or write a conclusion about the success of the inquiry to respond to the questions raised or identification of possible solutions. Less successful responses commonly focussed on unrealistic intentions that drifted from the main investigation, such as an endeavour to produce a film or video, or a video game, or the failure to make it, or the failure to provide a significant research sample or gather representative interviewees or questionnaire respondents.

Criterion 6: apply creative and critical thinking to analyse and synthesise reasoning and procedures

Investigations which demonstrated creativity and critical thinking in the exploration of the main questions; in the methodology used; in the interpretation of findings, and in the final synthesis of their own learnings are important factors to do well on this criterion. An approach to an inquiry might simply be to reimagine the problem creatively and then seek alternative ways and means of seeing a problem, solving the problem, or designing a solution.

To do well on this criterion, there is a need to fully define a problem rather than jumping straight into an obvious, predictable, or common solution, taking the time to re-imagine the problem creatively and then to seek new or alternative ways of solving the problems.

Criterion 7: apply metacognition to reflect on processes and transfer knowledge into new contexts

This criterion demands that candidates reflect on the processes that they have used and show evidence for the transfer of their conclusions or knowledge to new contexts. Making a strong reflective statement in the report that examines the original research question and its stated intention and then examines what findings have occurred is important to do well.

Explaining new, unintended, or extended learning is helpful too. A concise summary paragraph as the conclusion of the study is not sufficient evidence. Further, the task of applying metacognitive strategies to reflect on learning and transferring knowledge into new contexts can be simply demonstrated by text types such as graphing, mapping or the tabulation of substantial amounts of data into a succinct written or table form. As this criterion asks that candidates reflect on the processes they have used and show evidence of the transfer of this knowledge to new contexts, successful candidates explicitly state this process in a reflective statement in the inquiry conclusion section or report on it in their journals.

Criterion 8: communicate in a range of modes and contexts

To do well on this criterion, candidates need to demonstrate a full year of study with written and oral communications, such as providing evidence in the Communications Log and Reflective Journal entries. They need to use their maximum word count to reflect a year's work [150 hours equivalence], to use the entire 30 minutes for presenting, and 10 minutes for questions, and then discuss their decisions for written, oral, digital, or multimodal communication modes. Oral communications need to reflect understanding of the research terminology and methods, ethical conventions, validity, and reliability of study outcomes at the Level 3 standard.

Less successful responses were reliant upon personal narratives of process, blockers, or enablers and often imprecise, overly casual, or vernacular language. Sometimes an oral presentation can be too informal focussing only on the year-long experience and incapacity to contact useful mentors or subject experts to provide motivation or prevent procrastination in search of self-directed learning. (The need to proceed with caution or change directions if the 1st, 2nd, or 3rd interviewees do not support the inquiry question is a milestone for good project management in the internally assessed Criterion 2.)

Insufficient raw data can often mean changing the approach as well. Frequently, candidates had too many questions hindering their sharp focus in communications. Some reported that they had 'given up,' not approached other participants or were unsuccessful, and did nothing further. Successful candidates seek out other options for gaining the data or they refine their question. Candidates who identify the need for a change in direction or select a different inquiry are supported in assessment of their endeavours.

Simply reading continuously, from a script of the Executive Summary from cue cards, is not a convincing way to present the oral Inquiry Presentation or do justice to the work on each Criterion. Given a year-long study and immersion, knowing the material well enough to speak about it and to not completely read or recite a written component is encouraged. Mid-year internal examinations can be an ideal practice assessment on choice of research methodologies, methods and tools are often addressed in the Communications Log and Reflective Journal, and successfully tackle this lack of confidence in communication skills.

External Assessment Panel commended:

1. Candidates who declared their word count in each section.
2. Candidates who demonstrated skills such as succinct writing of an abstract of their research in their Executive Summary, paying attention to only Criteria 1, 3, 6 and 8.
3. Candidates who showed new learning/s through their mastery and use of language that was sophisticated or highly technical, or both.
4. Candidates who addressed the six criteria and explicitly referenced them in the presentation or written work, e.g., “the ethical processes that I needed to consider were…
5. Candidates who kept their eye on their research question throughout the inquiry, even if changed, or not easily resolved, and then aligned their results, analysis, and conclusions sections to reflect on the final inquiry question.
6. Candidates who used and reported on a full range of communication modes – email, interviews, face-to-face discussions, phone conversations or website/blog feedback to interrogate a problem seriously and extensively.
7. Candidates who kept all the criteria and important Elements nearby, to discuss and manage these in both the written Inquiry Report and Inquiry Presentation.
8. Candidates who reflected on research methods to apply creative thinking, critical thinking, or metacognition to their own quantitative or qualitative analyses. Examples were adhering to principles of ethical research; creative summary use of VENN diagrams, concept maps or mind maps to define the transdisciplinary study; using SMART goals or SWOT analysis; or multimodal representations of data and evidence that were not too ambitious to steal time from the other elements of the folio.

Referencing conventions and the use of AI tools

Harvard referencing convention is the default, as it is the common convention and logical solution to legitimise a transdisciplinary approach. It does not mix, or duplicate in-text citations or footnote styles, and it does not need a numbered reference list for footnotes as well as a bibliography. The Harvard style enables a good flow of text with in-text citations, encouraging academic integrity in writing; clear styles and advice on tabulating data, devising figures and tables, with labelling for each; or analysing and synthesising results effectively, without resorting to lengthy footnotes.

Other referencing conventions may be considered relevant, such as MLA 9th or APA 8th editons, but they should be selected through being able to stand the most important and practical test of being relevant to more than one discipline, such as English/Language/Philosophy and Life/Natural or Health and Behavioural Sciences respectively.

Teachers should advise candidates on the use of generative AI tools as defined in each Provider’s Academic Integrity Policy and the use of AI Policies and Procedures. The External Examination Panel will not expect to see a non-recoverable AI source that cannot be hyper-linked or retrieved later in time, listed in an in-text citation or end reference. However, candidates are advised that there are several options or personal preferences that can be exercised concerning their ethical use (Criterion 4) or acknowledgement of information sources in referencing styles. This may include a candidate’s decision to include illustrative prompts used in a generative AI query to strengthen academic integrity, or provide evidence of creative, computational or critical thinking modes, such as:

- Adding a “personal communication/date” listing the AI tool used in the list of references, or the publisher of the tool and the date used.

- Using a recommended convention description listed in the relevant discipline style, e.g., MLA 9th edition where the AI result is recoverable via a website.
- Including in an Appendix an “Acknowledgement” to indicate where and how an AI tool is used, providing such details as the prompts or the outputs (e.g. audio transcription to text, images, code, formulas).

Marking guide

The marking scheme summary for the external assessment follows and indicates those Elements in their listed number order within each externally assessed Criterion on each part of the folio and presentation.

Criteria	1	3	4	6	7	8	
EXECUTIVE SUMMARY							
Elements	1	2		2		1	
	5	3		3		5	
	7	6		4		6	
TOTAL							
Criteria	**1**	**3**	**4**	**6**	**7**	**8**	
INQUIRY PROPOSAL							
Elements	1	1				1	
	2	2				5	
	7	3				6	
TOTAL							
TOTAL	1	3	4	6	7	8	
INQUIRY REPORT							
Elements	3	1	1	1	2	1	
	4	2	2	2	3	2	
	5	3	3	3		3	
	6	4	4	4		4	
		5	5	5		5	
		6	6			6	
TOTAL							
Criteria	**1**	**3**	**4**	**6**	**7**	**8**	
INQUIRY PRESENTATION							
Elements	5	1	1	1	1	1	
	6	2	2	2	2	2	
	7	3	5	3	5	3	
	8	4	6	4	6	4	
		5		5		5	
		6				6	
TOTAL							
Overall							