2022 ASSESSMENT REPORT

SDI315117 – STUDENT DIRECTED INQUIRY
FEEDBACK FOR FUTURE STUDENTS AND TEACHERS

The external assessment covers four sections in two main folios:

1. The Inquiry Folio consisting of
    a. Executive Summary
    b. Inquiry Proposal
    c. Inquiry Report or Product
2. The Inquiry Presentation including a file to support the Oral Presentation

The External Assessment Specifications in the supplementary documentation on the TASC SDI315117 course website provides the minimum word limits for each section and a total maximum word limit for the Inquiry Report. 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 the Reflections Journal [diary].

The presentation file, 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.

For the Oral Presentation, thirty (30) minutes is allocated with an additional ten (10) minutes for assessment panel questions and students' answers at the examination centres of each school or college provider. Five (5) minutes at the beginning and the end of each presentation is available for the students' setting up, whether the multimodal settings and data projection devices or 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 or its appendices through a photographic image capture or other digital formats as a physical prop or product will not be accepted alone or received for external assessment by the examination panel.

Subject Coordinators or teachers need to ensure that additional subject mentors or experts provide their own *Subject Expert Declaration Form* for each of the student's community-based subject experts or teacher mentors, wherein these mentors complete a statement to indicate an acknowledgement that they have read and understand the TASC External Assessment Rule

4 (a-b) and Academic Integrity of the Candidate Declaration Form, the course documents and the work requirements. This form must also be countersigned as a verifiable acknowledgement by the course or Subject Coordinator that there is no conflict of interest and submitted to TASC.

INQUIRY PRODUCT AND PRESENTATION

Students do well in the external assessment when they fully utilise both their maximum word count for the Inquiry Report and their maximum time allowed for the Inquiry Presentation.

Students do well when Criteria 1, 3, 4, 6, 7 and 8 are covered in the teachers' lesson delivery of the mandatory course content and when students can demonstrate their understanding of each of the Elements in the six (6) Criteria externally assessed.

In addition, successful responses demonstrated theory-practice applications of research methodologies and research tools throughout their report with discussion of these Elements in their Inquiry Presentation, supporting the documentation of these aspects in their required Reflections Journal or Communication Log. Student summaries of their research decision, choices, or application of the mandatory content in the written form, such as summarised in a SMART or SWOT table form or added as appendices, can be a strength of an Inquiry Report.

CRITERION 1: apply self-directed, transdisciplinary inquiry skills

Successful responses show that a transdisciplinary 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 to develop new learnings.

Less successful responses failed to take this problem-centred or inquiry research approach and resorted to listing a few linear skills, cross-disciplinary skills, or inter-disciplinary skills, such as developing creative writing skills as an English Language/Literature study, using ICT skills as Digital Technologies, or collating a survey as a mathematical task or providing a Sociology or Psychology experiment focus, seemingly reflecting their previous experience in undertaking independent studies in these subjects. These latter skills do not constitute an acceptable approach to the critical level of thinking that constitutes a "transdisciplinary inquiry skills" focus.

High performing students will demonstrate 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, problems in society, or even ways of thinking and seeing. It is important for teachers to spend time, early in the academic year, engaging students in an understanding of 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 study or the deeper dives into tertiary specialisation boundaries of 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, such as in the following areas: science, technology, engineering and humanities, environmental design, sustainability and social welfare research, social wellbeing, national health and medical research.

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

Successful responses analyse or select appropriate research methodologies, 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, more successful students 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, a research **question** enables further questions for closer interrogation, such as:

- To what extent...
- How successful...
- What is the role of...
- What evidence is there to support...
- What is the impact of....
- Is there a correlation between...
- How reliable is...

Successful responses identify that research questions need information sources to assess or support the student's belief in the feasibility of undertaking the inquiry, such as background research or a 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 to 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.

These different methodologies bring different conventions in referencing styles, that are constantly being updated. For that reason, TASC accepts the Harvard referencing style as a default for selecting the most useful 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. 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 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, and
- following all 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.

It may also involve:

- 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 or 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
- successfully reporting outcomes that are aligned directly to the research question and problem-solving.

Students who did well on this Criterion: showed a deep understanding of the value of a literature review and referencing conventions such as Harvard* to enable standard in-text citations to acknowledge others' thinking; provided clear styles of tabulating data or devising figures and tables in their results section; provided an indication of the size of their survey

population; provided effective analysis and synthesis of their results; and included ethics 'consent forms' for those participating in surveys.

Less successful students did not retain a focus on the research question/s throughout all phases of the study or write a conclusion about the success of the inquiry which responded to the questions raised or identification of 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 failing to ensure availability of a significant research sample or representative interview / questionnaire respondents in any population sample.

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

To do well on this Criterion, student investigations needed to demonstrate the important factors of creativity and critical thinking in the exploration of the main question; in the methodology used; in the interpretation of findings; and in the final synthesis of their own learnings. 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 the 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 problem.

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

This Criterion demands that students reflect on the processes that they have used and show their evidence for the transfer of their conclusions or knowledge to new contexts. In order to do well, it is important to make a strong reflective statement in the report that examines the original research question and its stated intention and then examine what findings have occurred. Explaining new, unintended, or extended learning is helpful too. A short 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 cannot be simply demonstrated by text types such as graphing, mapping or the tabulation of large amounts of data into a succinct written or table form. This Criterion asks that students reflect on the processes they have used and show evidence of the transfer of this knowledge to new contexts. Successful students explicitly state this process in a strong 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, students need to demonstrate a full year of study with written and oral communications, such as providing evidence in the communications logs 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 featured vernacular language. Sometimes an oral presentation can be too informal, focussing only on the year-long experience and an incapacity to contact useful mentors or subject experts to provide motivation or prevent procrastination in search of self-directed learning. (There is a need to proceed with caution if the first, second or third interviewees do not support the inquiry question. This is a milestone for good project management in the internally assessed Criterion 2). Insufficient raw data can often mean changing the approach! Frequently, students had too many questions hindering their sharp focus. Some reported that they had 'given up,' not approached other possible participants or were unsuccessful, and did nothing further.

Successful students seek out other options for gaining the data or they refine their question, identify the need for a change in direction or select a different inquiry.

Simply reading continuously from a script of the Executive Summary or from cue cards is not a convincing way to present the Oral Presentation. Given this is a year-long immersive study, it is important that students know the material well enough to speak about it confidently. Reading or reciting a written component is not encouraged. A mid-year internal examination or practice assessment on choice of research methodologies, methods and tools can tackle this lack of confidence in communication skills.

EXTERNAL ASSESSMENT PANEL COMMENDED:

1. Students who showed new learning through their mastery and use of language that was sophisticated or highly technical, or both.
2. Students 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…."
3. Students who kept their eye on their research question throughout the inquiry, even if it was not easily resolved and then aligned their results, analysis, and conclusions sections to reflect back on the inquiry question.
4. Students 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.

5. Students who kept **all** the Criteria close at hand and asked themselves if they were addressing the important Elements and kept in mind how to discuss and manage these in both the written Inquiry Report and Oral Presentation.

6. Students who reflected research methods discussed in the class or class online teaching component of the mandatory content of the syllabus to apply creative thinking, critical thinking, or metacognition to their quantitative analyses. Examples included: adhering to principles of ethical research, creative use of VENN diagrams, concept maps or mind maps to define the transdisciplinary study, using SMART goals or SWOT analyses, or multimodal representations of data and evidence that were not too ambitious (avoiding stealing time from the other elements of the folio).

*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 footnotes and in-text citations, 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 for tabulating data, devising figures and tables, or analysing and synthesising results effectively without resorting to lengthy footnotes. Other referencing conventions may be considered more relevant, such as MLA8e or APA7e, but they should 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.