

Literature-based Research Skill Development (RSD) Task 1: **Note Taking, Synthesis and Integration of Scientific Literature**

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The submission deadline for this task is 4.00pm Monday 19th March 2007 (week 4 of semester). Late submissions will be subject to marking penalties as outlined in the Human Biology IA & IB Course Handbook, 2007.

The marks allocated to this task contribute 15% towards the final grade for Human Biology IA.

Background:

Part of being a sound scientist involves being "information literate", i.e. having the research skills that enable you not just to locate or collect information related to a topic, but to also critically evaluate, process, integrate and apply that information (which may be collected from a range of different sources), to a specific situation or within a specified context. The Lit-RSD tasks that form part of the assessment for Human biology IA are aimed at assisting you to develop and/or refine these essential research skills while studying the structure and function of the human body.

Lit-RSD Task 1 expands upon and extends the RSD diagnostic task introduced in O-week, and focuses on the identification and appropriate acknowledgement of key scientific information about a specified topic and its effective use in constructing a coherent written summary of the topic.

Aims:

Through the completion of Lit-RSD Task 1 each student will have the opportunity to develop and refine the following research skills: -

- Effective note taking, using a framework that identifies key terms, ideas and/or concepts, and organises relevant points and information in relation to these terms in a hierarchical manner.
- Synthesis and integration of key terms and information derived from different sources to form a single set of structured notes that accurately and efficiently conveys the scientific message without duplication of ideas or data.
- Production, from the notes taken, of a logically presented, coherent, piece of writing that conveys the key scientific concepts or findings related to the topic.
- Accurate tracking and documentation, both within the notes and piece of writing, of the origins and/or "ownership" of all key terms, information and ideas derived from the literature provided about the topic (i.e. referencing).

Resources and Requirements for Task:

In order to complete Lit-RSD Task 1, you will need to access the following file, which is available from the Human Biology IA Assignments folder on MyUni: -

- "Bone" Information File – this file contains copies of articles and links to websites from which the notes for the task are to be taken.

You might find the following resources useful in completing the task: -

- Anderson J and Poole M 2001 *Assignment and Thesis Writing 4th Ed.* Wiley Brisbane. Chapter 2 Planning the Assignment, pages 9-17. – The chapter provides general guidelines on taking reliable notes, organising information and planning a piece of writing.
- Marking Criteria for Lit-RSD Task 1 (available in the Human Biology IA Assignments folder) – This document provides an indication of the characteristics that will be assessed.
- Guidelines explaining the Harvard System of reference citation – The Barr Smith Library website links to several useful documents on referencing. We will provide specific guidelines on application of Harvard referencing with Lit-RSD Task 3 later in the semester.

A Research Skills Support Session, run in conjunction with staff from CLPD (Centre for Learning and Professional Development) will be held in the Laboratory Session times scheduled in week 2 of semester (i.e. Wednesday 7th Mar 2-4pm and Thursday 8th Mar 9-11am). The venue is Lab S210a, Medical School South on both days. At the session we will:

1. Provide feedback about the O-week Diagnostic Task.
2. Discuss how to approach the RSD tasks.
3. Explain the marking criteria used for RSD tasks.
4. Introduce some of the tools available for finding scientific information.

Summary of Task:

Students will access the "Bone" Information File, which contains articles and links to information about bone structure and remodeling. From these sources, students will take structured, dot point notes, based around 3 or 4 key scientific concepts or ideas presented in the articles. The notes will then be used to prepare a short, written summary or abstract (not more than 1-1½ A4-sized pages, single spaced) that integrates each of the key concepts and ideas and accurately reports information from the original sources. Throughout the task, the sources of all information will be appropriately tracked, and the final written summary will use the Harvard system of reference citation to acknowledge the origins of data and ideas.

Specific Instructions:

Follow the steps indicated to ensure that each aspect of the competency exercise is undertaken.

STEP ONE

Access the "Bone" Information File.

The file is available in the Assignments Folder of the Human Biology IA MyUni website and contains various information sources about bone structure and remodeling. Read each of the articles or web pages indicated.

STEP TWO

Construct notes from the sources provided.

1. Identify a theme or context around which you will base your notes. Use this to formulate a title for your notes and subsequent summary or abstract (see Step Three).
2. From the sources provided, identify 3 or 4 key terms, ideas and/or concepts and use these as sectional headings for your notes.
3. Under each of your headings, organise the relevant information and data in dot point format, using symbols and abbreviations where appropriate.
4. Indicate the origins of all information, i.e. use a tracking system that links the information with the article or web page from which it was taken. [The designated system of reference citation for Health Sciences courses (with the exception of Psychology) is the Harvard system. Find out information about this system and have a go at using it. The finer details of how to apply Harvard referencing will be presented in the tutorial session in week 5.]

STEP THREE

Write a short summary or abstract that presents the key findings as identified in your notes.

The summary or abstract should incorporate the following features: -

1. A readily identifiable organizational framework or structure that is consistent with the overall context and title of the summary (e.g. introductory sentence, body of discussion of key areas, iterative or concluding sentence).
2. Integration of materials from the various sources in relation to each of the key concepts/ideas documented.
3. Logical linkage of key concepts and their synthesis into a coherent whole.
4. Evidence of understanding (e.g. provision of definitions and explanations) of all scientific data and the context in which they are presented.
5. Documentation of sources, both within the written text, and through the provision of a reference list.

STEP FOUR

Edit/review your work and check that you have addressed all aspects of the task before submitting it for assessment.

1. Check what you have written against both the specific task instructions given in this document, and the Research Skills Assessment Criteria.

2. Check your assignment using an editing checklist. The Centre for Learning and Professional Development Language and Learning Service provides an editing checklist via its website http://www.adelaide.edu.au/clpd/lis/stud_resources/
3. Attach a completed assignment coversheet (available via MyUni) to the front of your Lit-RSD Task 1 and lodge it before the deadline in the locked assignment box in the corridor outside of the School of Medical Sciences Office, level 3, Medical School North. The declaration on the coversheet must be signed. Please retain a copy of your assignment for your records.






Literature Task 1: Marking Criteria

Student Name: _____ Student ID: _____

Marker: _____

 Facet of Inquiry	Student Autonomy Level 1 <i>Students research at the level of a closed enquiry and require a high degree of structure/ guidance</i>	Student Autonomy Level 2 <i>Students research at the level of a closed enquiry and require a some structure and guidance</i>	Student Autonomy Level 3 <i>Students research independently at the level of a closed enquiry</i>
A. Students embark on inquiry and so determine a need for knowledge/understanding	<input type="checkbox"/> Identifies some peripheral or duplicated ideas as key	<input type="checkbox"/> Identifies key ideas based on several sources	<input type="checkbox"/> Identifies key ideas utilising all sources
B. Students find/generate needed information/data using appropriate methodology	<input type="checkbox"/> Points/notes generated partially relate to the headings under which they are listed (some points not relevant to heading) <input type="checkbox"/> Notes produced are sourced predominantly from 1 text only	<input type="checkbox"/> Points/notes generated elaborate on the key ideas to which they are linked, but relevant data from some sources omitted, e.g. <hr/> <input type="checkbox"/> Notes produced draw on ideas from several texts	<input type="checkbox"/> Points/notes generated fully and completely elaborate on the key ideas to which they are linked <input type="checkbox"/> Notes produced draw on ideas from all texts
C. Students critically evaluate information/data and the process to find/generate this information/data	<input type="checkbox"/> Identifies indicators of source credibility and reliability but does not fully apply them in evaluating data or process	<input type="checkbox"/> Identifies several relevant indicators of source credibility and reliability and provides appropriate rationale for usage/ inclusion of information	<input type="checkbox"/> Identifies a wide range of indicators of source credibility and reliability and fully applies these in selection of data for inclusion
D. Students organise information collected or generated	<input type="checkbox"/> Has attempted a note-taking framework, but information is organised predominantly as a list of undifferentiated bullet points <input type="checkbox"/> Report structure follows general layout of notes, and has a beginning, middle and end	<input type="checkbox"/> Uses a hierarchical note-taking framework that organises related information under the appropriate key headings <input type="checkbox"/> Report based on notes; Ideas/data linked within sections/paragraphs, but no clear linkage between sections Poor linkage of: _____ <hr/>	<input type="checkbox"/> Uses a hierarchical note-taking framework that appropriately organises related information according to sub-headings under key headings <input type="checkbox"/> All sections of report linked with coherent flow both within and between sections
E. Students synthesise, analyse and apply new knowledge	<input type="checkbox"/> Produces point form notes (information not directly copied or in sentence format) but notes are separated according to source <input type="checkbox"/> Report largely restates original data with minimal integration across sources	<input type="checkbox"/> Combines and integrates ideas/data from different sources to generate notes, but some inaccuracies or misinterpretations evident <input type="checkbox"/> Report presents integrated ideas/ data but overall theme closely resembles that of original sources	<input type="checkbox"/> Combines and integrates ideas/data from different sources to generate notes that accurately reflect sentiment/ideas portrayed in the original sources <input type="checkbox"/> Report incorporates paraphrasing of data/ideas and presents "new" interpretations/ context from that of original source(s)
F. Students communicate knowledge and the process used to generate it with an awareness of ethical, social and cultural issues	<input type="checkbox"/> Title is present <input type="checkbox"/> Partial and/or incorrect acknowledgement of sources within notes and/or report <input type="checkbox"/> Partial/incorrect reference list provided	<input type="checkbox"/> Title relates to the key ideas within the report, but requires some refinement <input type="checkbox"/> Full acknowledgement of all sources within notes and report <input type="checkbox"/> Reference list contains all sources cited	<input type="checkbox"/> Title clearly and succinctly reflects contents of the report <input type="checkbox"/> Full and correct acknowledgement of all sources within notes and report, with differentiation between quotation and paraphrase <input type="checkbox"/> Reference list contains all sources cited and follows referencing conventions