BCIS Research and Development Project
Individual Reflective Report
Requirements and Assessment Guide

Date	Version	Author	Notes
Apr 2017	1.0	Anne Philpott	Contains collated notes from earlier project assessment resources.
Feb2015	1.1	Anne Philpott	Minor updates
July 2015	1.2	Anne Philpott	Minor updates
May 2016	1.3	Stephen Thorpe	Template revision, correction and addition of missing references and minor updates
May 2017	1.4	Stephen Thorpe	Minor updates
Aug 2020	1.5	Sarita Pais	Assessment weightage
Aug 2022	1.6	Jacqui and Ramesh	General update
Jan 2023	1.7	Jacqui and Ramesh	Submission format update

1.   Introduction

The reflective report offers an opportunity for you to reflect on what you have learnt, the work you have done, the problems you have overcome, and the significance of what you have achieved during your R&D project experience.

Reflection is something that should have occurred throughout the life of your project and is evidenced by: monitoring, controlling, and reflecting on all of the processes throughout your project's phases. This should have included reflections on the effectiveness and issues faced with respect to plans, tasks, roles and practices. You should also have reflected on any changes in your process and practices from proposal to handover and how these changes affected your project both at the time and in the final outcomes.

Reflecting on your project experience demonstrates your ability to be a reflective practitioner and effective problem solver, and to learn from your experiences. These skills are necessary to be an productive and valued IT professional and will stand you in good stead in your future working roles. Fincher, Petre and Clarke (2001), in their book entitled Computer Science Project Work: Principles and Pragmatics, place particular emphasis upon the value of reflection: "Reflection on experience underpins the process of successful learning and is essential to the success of education." (p. 226). Engaging in reflective practice creates a mindset invaluable for workplace performance beyond your degree qualification. It's a skill-set for attaining future roles, success and promotion. The Fincher et al. model is drawn from earlier work by Argyris and Schön (1974; 1996) and Schön (1987), in which professional work involves self-monitoring, continual improvement and planning cycles, putting things into action, observing how they work, and then reflecting on them. All of these are a critical part of the R&D project course.

Notably, the R&D project course (Parts 1 and 2) requires you to apply the knowledge, understanding and skills acquired from prior courses you have studied as part of your BCIS degree. As part of the project experience you should also have developed the skills to independently learn new concepts and skills as needed.

The learning outcomes associated with the reflective report assessment are:

1. *Show the ability to successfully undertake original work and demonstrate a professional attitude.*

2. *Demonstrate the ability to integrate the different skills required to bring a project to a successful conclusion.*

3. *Communicate effectively with clients and sponsors in written and verbal presentations and group situations.*

4. *Effectively manage, monitor and control the activities involved in a research and development project.*

5. *Determine an appropriate process and accompanying set of deliverables for their project by selecting and justifying an appropriate methodology for their project.*

6. *Show the ability to document appropriately the deliverables for their project (e.g. software specifications, project plans, source code, technical reports, white papers, literature reviews, academic articles for publication etc.), as agreed with the project supervisor(s).*

2.   Reflective Report Content

Your report should reflect on what you have gained both personally and professionally from the project experience and identify where you still need further development. As part of your critical reflection on your project you should reflect on lessons learned and identify and analyse critical incidences and learning points that occurred during the course of your project. These reflections should be contextualised by providing specific examples to support your discussion. The focus of your report must be not on mere description of your project and the activities you have undertaken, but on critical analysis, evaluation, and reflection that includes links to relevant literature (theories, conceptual frameworks, research papers etc.) that support your reflections. For example, your report may include the following aspects of your R&D project, as applicable to your project's context:

- Project management practices/processes
- Team work and dynamics, Client Relations, Negotiation skills
- Project methods and your role(s) in those practices
- Roles in context of team and chosen methods
- Skills both technical and non-technical
- Intellectual Property, Data Protection and Privacy, System Security
- Ethical and sustainability considerations
- Importantance of your final product(s) to your client's business, future business case for furthering the product
- Links to prior learning in your BCIS papers

It is important to note that your report's focus should be on critical analysis, evaluation and reflection **on how you performed** and your ability to demonstrate the application of relevant theory to the project experience. These critical reflections should be clearly contextualised in a real experience from your project and that experience should be seen through your own lens and relate to your role(s) within the project. No two team members will experience and view a shared incidence through the same lens.

In formulating your report you should consider questions such as:
- Is the theoretical framework, model, process, strategy, practice or technique we followed realistic?
  - Does it have weaknesses or deficiencies?
  - Do you have any recommendations related to the theories you have read?
  - What have you learnt about yourself in following this approach?

You must actively seek to link specific authentic examples of situations encountered in the project to the theories, frameworks, processes, techniques, practices or guidelines outlined in the literature. These could be in the form of Critical Incidents (see Fook and Cooper, 2003), as discussed in the workshop on Critical Thinking (week 8), which includes a structure for articulating your reflections and learning. Credible academic sources should be used. For example textbooks, journals and conference articles (such as those found in the ACM or IEEE Explore digital libraries - *not* websites or Wikipedia).

The feedback received from your client can be extremely helpful in preparing a reflective report. Therefore, it is strongly recommended that you provide the feedback form to your client to fill in before you finalise your reflective report as the client may highlight issues, weaknesses, or strengths that you may wish to address in your report.

Your reflective report must be presented in a form that is acceptable in a commercial environment. Hence, tools should be used, like MS Word's spell and grammar checkers or Grammarly, that help ensure a high-quality well structured report. It is essential that the report is edited and proofread before submission.

A template for the reflective report and guidelines for content are outlined in Appendix A.

3.   Submission and Marking Process

The reflective report is an **<u>individual</u>** assessment, which contributes 10% to your final grade. It will be marked by both your mentor and moderator and the final marks may also be reviewed by a moderation panel prior to arriving at a final mark for your reflective report.

Due Date: Monday 12th June @ 11:59 PM (Week 14)

Please note that unlike the other assessments for your R&D Project course **each student must prepare and submit their own individual reflective report**.

Submission details:

1.   You must submit your report using the Turnitin link provided on Canvas.

Appendix B provides the marking criteria for the reflective report. This and Appendix A should be considered as well as the content of this guide and the knowledge gained from the Part 2 workshop on critical reflection when writing your report.

References

Argyris, C. (1996). Unrecognized defenses of scholars: Impact on theory and research. *Organization Science, 7*(1), 79-87.

Argyris, C. & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness.* San Francisco, CA: Jossey Bass.

Fincher S., Petre M. & Clark M. (2001). *Computer science project work: Principles and pragmatics.* London: Springer.

Fook, J., & Cooper, L., cited in (2003) *Bachelor of Social Work Fieldwork Manual*, Dept. Social Work, School of Primary Health Care, Monash University.

Hinchcliff, J. (1974). *Values Integrating Education: An Exploration of Learning in New Zealand.* Pukekohe, NZ: Mirilea Press.

Schön, D. (1987). *Educating the Reflective Practitioner.* San Francisco, CA: Jossey Bass.

Appendix A - Reflective Report Template (Content Guide)

Font size 12, 1.5 spaced, no more than two standard fonts.

Cover page with a Title, Project, Name, Student ID, Date, and Supervisor's Name.
Abstract   ½ page
Acknowledgements   ½ page
Table of contents   1 page
Introduction   2 - 3 pages

Project evaluation   (2-5 pages)
- o Evaluation of the project achievements (scope, teamwork, and learning) against those outlined in the original project proposal. *What do you plan to do? What did you actually do? Did this achieve the goals?*
- o Evaluation of the project and product(s) significance to the organization (including both the short-term and the long-term significance). *Why does it matter to them?*

The link between theory and practice   (2-5 pages)
- o Analysis of the project with regard to relevant theory (such as frameworks, models, and processes), including critical evaluation of the application of those theories to the project. *Relevant areas of theory could include collaboration, project management, technology-related theory, tools, processes and practices etc. Review the theory you learned in earlier papers in your degree and identify how your project experience supported or did not support the theories.*
- o Critique the research or PM methodology, including method, phases, tasks, and techniques adopted in the project. *What worked? What did not? Why? Is this what the literature would predict?*

Personal and professional development   (2-5 pages)
- o Evaluate your personal and professional growth against the originally expected skills and knowledge to be acquired as stated in the project proposal. *Have you actually learned what you expected to learn? Are there other things you have learned that you did not expect?*
- o Identification of future learning needs. *What do you think your current gaps and weaknesses are? How could they be addressed?*
- o Evaluation of the team roles, the effectiveness of the team members, and your interaction with team members. For individual projects, evaluation of the limitations of working alone, the nature of individual processes, and their impact on your project.

Summary and conclusion of total project experience   (2-5 pages)

References
- o A suitably comprehensive set of references from quality sources are required **for works correctly cited in the body of the report**. Note that references must be in **APA 7th format**. *How many is enough? Quality and relevance count, so more irrelevant or low-quality references would not be better than fewer good relevant ones. However, it is expected a minimum of ten references would be used.*

Index of appendices.
If there is something that you believe is relevant and belongs in an appendix.

Appendix(ices)   No formal limit on size or content

Note: Past students who have linked **specific examples** of issues or experiences to fidnings and theories from academic journal articles, books or refereed conference papers have presented higher **critical thought <u>and</u>** as a result have <u>**received significantly higher grades**</u>.

Appendix B - Reflective Report Marking Criteria

Criteria	Mark [5]
Structure, format and introduction Length: 4-5 pages in total, excluding cover page – **Cover page** (must have title, student name, student id., version, date, supervisor's name and paper number). – **Abstract** ½ page – **Acknowledgments** ½ page – **Table of contents** 1 page – **Introduction** 2 - 3 pages	
Project evaluation Length: 2-5 pages in total, excluding images **Presents an evaluation of the:** – Project achievements (scope, teamwork, and learning) against those outlined in the original proposal. – Significance of the project and final product(s) to the organization (including both the short term and the long term significance).	
Link between theory and practice Length: 2-5 pages in total, excluding images Analysis of the adopted approaches (such as research methods, PM methodology, agile development, etc.) and theories (such as frameworks, models, processes) with links to appropriate literature must be presented. This discussion must include justifications for the adoption of these approaches, and any changes made during the project, and reflect critically on the impact of these approaches on project outcome.	
Summary and conclusion of total project experience Length: 2-5 pages in total, excluding images	
References & quality of report The report should met the academic standards required including: – Content linked to relevant literature with references are expected to be from quality sources and correctly cited in the body of the report – Appropriate academic citation standards are applied (APA 7th) – Language contains very few, if any, errors in grammar or vocabulary. – Ideas are expressed clearly and concisely.	