SEMESTER TWO REFLECTIVE REPORT

Version 1.0
BSc Computing for Games

Dr Michael Scott

Introduction

In this assignment, you are required to critically reflect on your progress across the Semester and, in particular, review the strengths and weaknesses of the key skills that are influencing the quality of your work. You will also develop plans of action to overcome your weaknesses and thereby improve the quality of your work in future assignments.

Such reflection and planning is an extremely important part of learning games development, and in particular computer programming. They are key components in a technique known as deliberate practice, which research has shown to be very successful at nurturing expertise in software engineering. Everyone that properly adopts this technique eventually succeeds, despite the challenging nature of the subject. It is, therefore, very important that reflection and planning are not dismissed as an afterthought at the end of the course. For this reason, this assessment has two components, A and B, as follows:

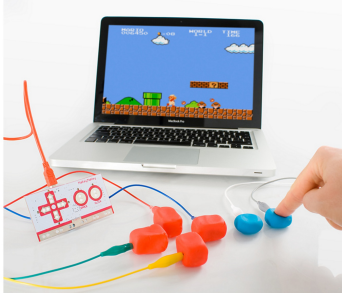
(a) A series of brief weekly reports that must:

   i. **describe** your progress;
   ii. **assess** any problems or issues that you have encountered;
   iii. and then **outline** some specific actions to take to overcome these problems.

(b) A final 500-word report that must:

   i. **identify three** key skills that you consider weaknesses;
   ii. **assess** your application of **each** of these skills, *describing how* they affected the quality of your submissions **and suggesting why** they became challenges;
   iii. and then **identify how** to improve **each** of these skills, with reference to SMART actions.

Part A consists of **multiple formative submissions** with deadlines at the end of each week across the Semester. This work will be assessed on a **threshold** basis. The threshold is set at 15%. This means that 15% of the total marks available for the coursework overall are awarded on a pass or fail basis. In other words, satisfactory submissions will be awarded 15%. However, unsatisfactory submissions will receive 0%.



The *MaKey MaKey* allows a multitude of materials to be used to create videogame controllers.

The following criteria are used to determine a pass or fail for each submission in Part A:

(a) Progress has been described with adequate detail;

(b) Problems and issues have been clearly explained and assessed;

(c) There is evidence of reflection;

(d) At least one SMART action, appropriate for resolving the issue, has been outlined;

You will receive ongoing feedback through your fortnightly tutorials and will have the opportunity to revise the work prior to the final deadline based on this feedback. It is especially important that work that is not yet satisfactory is revised based on the feedback provided as **all reports must be satisfactory to pass**.

Part B is a single summative submission and will be assessed on a criterion-referenced basis. This submission is expected to take students from the threshold of 15% (F) up to the maximum of 100% (A*). This means that 85% of the total marks available for the coursework overall will be awarded.

The following criteria are used to allocate marks:

(a) Appropriateness and Specificity of Selection of Key Skills;

(b) Adequacy of Self-Appraisal in Relation to Key Skills;

(c) Depth of Reflection on Key Skills;

(d) Appropriateness of Plan for the Future;

(e) Quality of Academic Writing;

"Remember, learning to program can take a surprising amount of time & effort — students may get there at different rates, but all students who put in the time & effort get there eventually. Making good use of (reflection and deliberate practice) are an essential part of this process."

— Professor Quintin Cutts

Submission Instructions

Part A

Part A must be completed as a formative submission on GitHub. Fork the GitHub project at the following URL:

`https://github.com/Falmouth-Games-Academy/comp110-evaluation`

Write your weekly reports in the `readme.md` file. Also use this repository for any other digital assets you create (e.g. images), checking them in regularly as you work on your projects. For the reports, images should be embedded directly in the `readme.md` file. Videos should be uploaded to a video sharing site (e.g. YouTube, Vimeo, Vine) and linked from the `readme.md` file.

You will need to show your most recent weekly reports to your tutor during each of your fortnightly tutorials, at which point they will be signed-off.

Part B

Part B must be completed as a single PDF document, prepared in LaTeX. The LaTeX source files should be hosted on GitHub in the same repository as Part A. The single PDF document must be submitted to the LearningSpace by the final submission deadline as shown on LearningSpace. Please note that the LearningSpace will only accept a single PDF document.

You will receive formal feedback three weeks after the submission deadline shown on LearningSpace.

Rhythm games such as *Guitar Hero* and *Rock Band* are excellent examples of games which make use of unique input devices to enhance gameplay.

Additional Guidance

Reflection is taking time to examine thoughts, feelings, beliefs, values, attitudes and assumptions in the context of a specific topic, situation, problem, issue,

or process. Part of reflection is relating these varied understandings to your experiences of or within the context. Then analysing that relation to work out how and why an understanding arose. Further to this is projecting that relationship into the future, drawing on the how and the why, to identify future activities. Thus, combining these leads to a plan on how to develop your knowledge and improve your skills.

A common mistake made by beginners to reflective writing is to use many words to describe the context and/or the experience. Avoid this. The description of an experience is not particularly important. It is the analysis and evaluation of that experience which is important because this will reveal interesting insights about yourself and your actions which will be useful when planning more effective actions in the future.

Computing knowledge and, in particular, programming skills require a significant investment in time and energy to develop. However, quality of practice is more important than quantity of practice. Your readiness, the suitability of the form of practice, and the relevance of the skill being practised are all important factors which affect quality. Given that you must work to tight deadlines, it is very important that time and energy is used effectively to optimise progress. A strategy that has shown success at achieving this optimisation is deliberate practice.

"The first 90 percent of the code accounts for the first 90 percent of the development time.

"The remaining 10 percent of the code accounts for the other 90 percent of the development time."

— Tom Cargill

A continuous cycle of reflection and planning forms the cornerstone of deliberate practice. Unfortunately, however, another common mistake that students make is treating this reflection as an afterthought. This is a problem because rather than focusing on the development process, there is often too much attention on the end-product: the actual submitted work. However, it is important to consider that software development is a process. It is the experience of that process and how to change that process that is important. This is what will lead to higher quality submissions in the future and forms the underlying purpose of this assignment. Subsequently, failing to record experiences and failing to engage in regular reflection will not only slow your progress substantially but will also result in a poorly focused report.

"Hofstadter's Law:

"It always takes longer than you expect, even when you take into account Hofstadter's Law."

— Douglas Hofstadter

So what is deliberate practice? Briefly, it is practice which is: conscious and intentional; designed with your current skill level in mind to force an exerted effort but avoid frustration; provides relevant and measurable feedback to track progress; and follows a repeatable structure.

A common mistake when planning such practice is being too general. It is, therefore, important to consider SMART actions: specific; measurable; achievable; relevant; and time-bound. Also note, problem solving and designing are particularly important programming skills and approaches to developing skills in these areas can be relevant.

The *Dreamcast Fishing Controller*, released as a peripheral for the game *Sega Bass Fishing*. Even peripherals which appeal to only a small audience can enjoy moderate commercial success.

Additional Resources

- Ericsson, K.A., Krampe, R.T., and Tesch-Romer, C. (1993)The Role of Deliberate Practice in the Acquisition of Expert Performance. Psychological Review, 100(3), 363-406.
- Bolton, G.E.J. (2014) Reflective Practice: Writing and Professional Development. SAGE Publications: London.

Marking Rubric

Criterion	Weight	F (0 – 39)	D (40 – 49)	C (50 – 59)	B (60 – 69)	A (70 – 79)	A* (80 – 100)
Satisfactory Preparation of Weekly Reports	15%	At least one weekly report has not been submitted, is incomplete, or is unsatisfactory.					All weekly reports have been signed-off by your tutor by the deadline.
Appropriateness, Specificity, and Relevance of Selection of Key Skills	10%	Less than two appropriate key skills are mentioned.	At least two appropriate key skills are mentioned.	At least three appropriate key skills are mentioned.	At least three appropriate key skills are mentioned. At least two of the key skills are both specific and relevant.	At least three appropriate key skills are mentioned. At least three of the key skills are both specific and relevant.	At least three appropriate key skills are mentioned. At least two of the key skills are both specific and a priority.
Adequacy of Self-Criticism in Relation to Key Skills	20%	No self-criticism is made.	Little self-criticism is made.	Some self-criticism is made.	Much self-criticism is made.	A significant level of self-criticism is made. Some of the self-criticism is accurate and pertinent.	An exception level of self-criticism is made. Much of the self-criticism is accurate and pertinent.
Depth of the Reflection on the Application of Skills	20%	No reflection is evident.	Little reflection is evident.	Some reflection is evident.	Much reflection is evident. Some depth of insight is demonstrated.	Significant reflection is evident. Much depth of insight is demonstrated.	Exemplary reflection is evident. Significant depth of insight is demonstrated.
Appropriateness of Plan for Future Development	20%	No appropriate plans are proposed.	At least one generally appropriate plan is proposed.	At least two specific and achievable plans are proposed.	At least three specific and achievable plans are proposed. At least two of the plans are also relevant.	At least three specific, relevant, and achievable plans are proposed. At least two of the plans are also measurable and time-bound.	At least three specific, measurable, achievable, relevant, and time-bound plans are proposed.
Appropriateness of Reflective Writing Style	5%	Demonstrates no evidence of ability in reflective writing.	Demonstrates evidence of little ability in reflective writing.	Demonstrates evidence of some ability in reflective writing.	Demonstrates evidence of partial mastery of reflective writing.	Demonstrates evidence of mastery in reflective writing.	Demonstrates significant evidence of mastery in reflective writing.
Appropriateness of Spelling and Grammar	5%	Substantial spelling and/or grammar errors.	Many spelling and/or grammar errors.	Some spelling and/or grammar errors.	Few spelling and/or grammar errors.	Nearly no spelling and/or grammar errors.	No spelling and/or grammar errors.
Appropriateness of Essay Structure	5%	There is no structure, or the structure is unclear.	There is little structure.	There is some structure. A few sentences and paragraphs are well constructed.	There is much structure. Some sentences and paragraphs are well constructed. There is a clear introduction and conclusion.	There is much structure, highlighting the key skills. Most sentences and paragraphs are well constructed. There is a clear and well-constructed introduction and conclusion.	There is much structure, highlighting the key skills. All sentences and paragraphs are well constructed. There is a clear and well-constructed introduction and conclusion.