Continuing Professional Development - Semester Two

COMP130 - CPD Report

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Introduction

My overall career goals are still somewhat vague in my own mind. It's more likely than not that I will end up in another programming based role at a company not necessarily based around games. Knowing this, I intend to learn at wide variety of programming skills during my time at university. Having said that, I still have the wish to be an indie developer and possibly create my own games one day, I'm not entirely sure which field would be best to focus on, but I have enjoyed programming gameplay elements in our group project and would also like to delve deeper into the code designs of resource management in games as I didn't really get to do this in any of our projects this year.

1 Affective - Lack of Enthusiasm

I found that at the start of the group project I had such a lacklustre understanding of Unreal and C++ that it was very difficult to motivate myself to do much work on the game. There was little drive amongst the group as a whole to actually stay focussed

on the game for long periods as well. Very little Art or Design was implemented until very late in the project. Later on in the project I would get bursts of enthusiasm and make a lot of progress with the game but would ultimately become dejected at the lack of enthusiasm from the majority of the rest of the team and stop working on it. I understand that enthusiasm naturally waxes and wanes but this would be a disaster in a real world scenario in the games industry.

To fix this for the next project, I aim to take a little but often approach to the group project. As well as the scheduled studio practice sessions, I intend to spend at least an hour each day working on the project in some form, no matter how big or small. I will keep track of this by making a commit message via version control each day at least 5 times a week. Hopefully this will keep me interested and thinking about the project.

2 Interpersonal - Asking for Help

I have a tendency to shy away from asking for help. Particularly from lecturers. I sometimes feel like I should know a lot more than I do and the confidence in my abilities isn't very high most of the time when I'm learning new things. I can feel like I don't want to waste somebody's time with a trivial matter that I think I should already know. It sounds akin to the imposter syndrome that Gareth has talked about in his lectures. I understand that it's counter-productive to think like this. This kind of irrational thinking just leads to a snowball effect where I needlessly waste a lot of time on things that would be much easier to just ask someone's advice or help with. I know this from experience in the group project, on the few occasions when I would be so stuck that I had no choice but to ask for help, it would speed up my understanding of things many times faster than self-directed learning would. This is not to say that I don't understand the benefit and need to problem solve on my own of course. I understand that coming to your own conclusion often leads to a better understanding of the subject.

Reducing my anxiety over asking for help is difficult to quantify using a SMART goal.

However, I will be sure to include in my weekly journal at least one specific query I resolved by asking a lecturer for advice at least once every week. This will ensure I get more used to admitting when I need help.

3 Dispositional – Setting Targets

Other than university set deadlines, I rarely set myself time-specific goals. A lot of the first year assignments had been split up into parts to help guide us towards the overall assignment goal in a timely fashion. This was incredibly helpful but this meant that I didn't have to rely on setting myself deadlines as much as I should have and I know that this will likely be lessened in the 2nd and 3rd years as study becomes more hands off and more self-directed. Therefore setting my own targets would be highly useful to keeping myself on track next study block. It would also be very useful in the games industry at large and specifically if I were ever to design games on my own as I would have to set my own deadlines.

Therefore, at the start of next semester I will go through the assignment briefs thoroughly and map out specific targets on a timetable and adjust them throughout the semester where needed.

4 Cognitive – Object Pooling

During the group project I noticed an issue with some of the gameplay mechanics that I never got around to adjusting due to my lack of knowledge in that area and time constraints. Specifically there was a noticeable fps lag when the number of bullets being spawned by the shotgun character was set too high. Luckily our game didn't require that the variable be set that high in the final game but it highlighted an issue that I would likely come across in other games. I learned that this could be fixed using object pooling to manage the memory usage of the bullets.

I therefore intend to learn more about the use of this design pattern. I'm going to use tutorials specific to C++ in Unreal to create a basic object pooling system for bullets and measure the fps rate before and after. I originally intended to create one for the group game using blueprints (which is what most of our game is using) but I will prioritise making one using just C++ code during the summer period.

5 Procedural - Continuing Logical Problem Solving

I have spent time playing logical problem solving games such as ***TIS-100*** and ***Opus Magnum*** over the last semester and have found them very enjoyable and useful. However, I have often still found myself at a loss at where to begin when trying to solve real code specific problems. Particularly with regards to the efficiency of my solutions. I believe a lot of my group project work is plagued by inherent inefficiency.

To help remedy this, I have signed up to ***www.codewars.com*** to help further improve my problem solving skills with specific regards to coding related problems. I will aim to complete at least 3 challenges per week over the summer period. I will be able to compare and contrast my solutions with better solutions proposed by professional programmers. This should really help to improve my software practices.

Conclusion

I have been introduced to many new practices this semester that all require more time and effort to master. Particularly, working on a big group project has been enlightening. I now know that keeping involved and interested early on is vital in any given professional environment for the project to succeed. I also intend to continue improving my Alt-Controller game over the summer, as well as complete a Udemy course - ***Complete C# Unity Developer 2D - Learn to Code Making Games*** - to help prepare me for using Unity next year. Planning and improving my coding skills are

key focusses of mine and hopefully my SMART goals will help me in this endeavour throughout the summer and during the next year of university.