Problem Solving Reflective Diary

This is my weekly reflective diary about the lectures I attended at Thames Valley University for the Problem Solving module. This diary is written in first person narration mode; the style is informal, full of metaphors and personal thoughts. After all, a reflective diary is a private record of experiences, either positives or negatives, during a given period of time.

For each week I have highlighted in bold and created a set of numbered heading of the main concepts or ideas that I have learnt, and then I have developed these ideas on extended paragraphs after the headings.

Week 1 - 3rd October 2009

1. Punctuality and synchronisation

On the first day at the University I realised the importance of the punctuality factor, stressed several times throughout the day in the speeches by the lecturers as the day went on. I did actually arrived on time this day, and that allowed me first of all to find a seat, with a few minutes spare before the lecture started to make up my mind and adjust it to the surrounded environment, gaining intellectual serenity. In fact, I realised that if arriving precisely on time is important, arriving a few minutes earlier is critical and more productive than arriving "just on time". Arriving earlier allows you to see the process starting from point -1, providing a security distance in time or buffer so that your brain can adjust to the new environment, making easier the digestion of new concepts.

I also realised that punctuality is synonymous of synchronization, and without synchronisation any given system is condemned to fail. My mind needed to be synchronised particularly with the lecturer, and be in the same wavelength as his so that we are all receptive of the material he is trying to teach us.

2. Learning techniques

If I ever was taught a technique to learn efficiently, I promptly forgot because I've got the sense that I've always used the same method for learning: sit down, put your hood on and dig into the book by reading it out aloud in your mind, again and again. Listening to the several theories about learning methods was really enjoyable and certainly a good help to achieve our goal of passing the Problem Solving module and gaining some knowledge during the process.

Throughout this week I researched the different methods for learning I was lectured, in an aim to discover what my learning style is. Exercise number 2 of the seminar (Learning Styles and Personal Objectives) was focus on that, and I decided it was a must to complete this exercise as soon as possible, so I skipped Exercise 1 and started with number 2. Did a few tests on the Internet and the result was that my learning style is more introspective than anything else, I learn better when I am alone and assimilate the best by reading and observing. I learn the least when I am instructed surrounding by people, in a group, or when I am force to listen only, without any interaction with the material that I need to learn.

3. Planning and organisation

I always consider myself very systematic and organised person at the time of picturing and achieving a given task. However, I realised that I needed the techniques

and theories that we were taught today to polish my self-taught planning skills and be more formal and efficient. For example, I never actually wrote a plan; only occasionally when we have complex upgrades at work that expand over the period of a year or more. For the rest of the tasks I have done, I always had the planning course in my head, which is not good as it doesn't really let you see with clarity what the outcome of the plan would be. Techniques like SMART objectives or ideas like monitoring the progress of the plan are really useful.

Organisation was other key factor that was hardly mentioned by the lecturer (the word 'organise' wasn't at all in the slides of the presentations), but that to my believe is critical and have to be set in place before the planning. As I said above, I consider myself an organised person, and this week at work I tried to push the boundaries of this thought and put into practice the organisation of the way I work, and then plan for the solution for the problems that could span for a period longer than a week. This really worked: you don't get the stress of trying to find out what happening with the problem (the solving-plan tells you at what stage you are now) or the pressure of having a dead-line on top of your head all the time (just be patience, look at the solving plan and act accordingly to the requirement following the schedule of the present date).

4. Deeper research

There is a risk of falling into the autopilot mode of using systems when you get accustom to do always the same things in the same way. You could easily fall into the routine of what you know, and I believe this is what happens to me in some areas of my work and my personal life. Like, for example, the way I use the Internet. I didn't realise that by putting a '+' symbol in front of a word you force the search engine to include this word into the search. The lecture of today gave me the idea that I should really come out of the framework of thought at the time of doing things, and research, research and research.

It is a bit embarrassing to be told by a new colleague at work about a completely new button to me on a program that manages the network and that I've been using for years. I dedicated part of this week to look for new ways of doing things at work by researching manuals of the software we use and questioning the daily routines that we perform with certain programs at work.

Hard / Easy Findings

During this first lecture we all heard the ambiguous term: "Reflective Diary", as if it was some sort of obscure requirement to enter on the upper levels of TVU, or a kind of Testament moments before crossing the threshold of the unknown. As the day went on the Reflective Diary concept took shape on our brains, becoming the most important task that we all had to complete in order to pass the Problem Solving module. That, in itself, was a problem of problems giving the fact that last time I wrote something similar to a diary I was a teenager.

I felt pleased with the overall view of the course, as it will give me value knowledge and tips about how to solve problems, taking steps methodically and systematically. And all I have to do to pass this module depends on the amount of work I will have to put on it. There will be no one to blame but me if I fail, and I am glad to see that everything depends of that: me working on something that I'm already willing to learn.

Week 2 - 24th October 2009

1. The power of the pencil

I have always been positive about the fact that I express myself better in writing than by talking, and at the time of facing a problem my natural tendency is to analyse it in writing. During today's lectures we've heard about the importance of reports as a way to transfer information related to a subject and for a specific audience. I actually liked to have learnt some techniques about how to write reports more professionally and effectively, and surely this will help me in the development of my career.

At work I am often required to do reports, though my only one audience is my boss, who does not care much about the quality of the presentation. He is more a person who expects to discuss a problem by talking, while I opt instead to write it down first and then discuss the issue with the writing report at hand. I believe that knowing how to professionally express yourself in writing is a key component of success. I called this the power of the pencil, where a small pencil is more powerful than the finest speech or the acutest memory.

2. Commitment

We were introduced in more detail during today's lectures about the aspects of group working and the fact that we have to do a small presentation in group, exercise that I am looking forward to do. I found really interesting the different roles that you could have in a group, and the point that, depending of the group you are part of, your role can change from being a team worker (at work, for example) to a leader (you have to look after your nephews underage for the weekend, for example). That means that our role depends mostly of the environment we are working on.

For a group to be successful each of the members has to have a real commitment to the tasks or goals for which the group is created for, making these tasks as clearly as possible to all members. For me, this commitment condition is like a lighthouse, a rope where I hold myself and climb upwards: I need to have a total commitment to the group I belong to, and to my experience I can't be part of a group if I don't feel compromise with the goal the group is trying to achieve.

3. My Group at work

Following the guidelines of today's lectures, I tried to analyse and study during this week the group that I am part of at work. We are a small group of four people, my boss who is the ICT Coordinator of the Secondary High School where we work, the ICT Teacher head of department, myself and a secondary IT Technician that I supervise. I've described the members of the groups on a hierarchic order, with my boss at the top. We also take part on maintaining, utilising and managing the different aspect of the school IT Network, and I strongly believe that the group is not running with the efficiency it should be.

By applying at my work some of the bullets points of the lectures, I discovered that there is a substantial lack of involvement and a weak atmosphere related to the tasks we supposes to do, with confusion and blurry lines of responsibilities. I talked to my boss and suggested that at least once a month we should organize a meeting among the four of us to discuss how the network is being used in the school. He told me there was no significant aspect that needed to be discuss, and that his current system of 'talking on the corridor as problems arise' is working very well. People is always scare of changes.

4. Be critical

The lectures about presentations, works in groups and empowering researches, give me the idea that we really have to be critical about everything that we take on board, anything from a small problem to a discussion with friends, arguing about different points of view of a given subject, should be taking with a critical thinking approach. Many times, at work, and because we continue on doing more or less the same autonomous things, I don't question the new tasks and problems that I am required to do and solve, and I should really start questioning and challenging everything I'm required to resolve, as the first step on a solid path towards a solution.

During this week I wrote down the word "Why?" in a yellow sticky note and put in on the top left corner of my screen at work. That way I'll remember to use it when new tasks for my work as an IT Technician support arrived. Without abusing the word and avoiding being cynic or grumpy, the regular use of it should give me a more rational view of the problems that occur every day, resulting in a prompt resolution and, more important, disclosing the root causes of the issues.

Hard / Easy findings

At first I thought that this part time module should not take an important amount of my time or much effort, but I have come to the conclusion after this week that, though not critical, I will have to dedicate some serious hours working and putting myself in the position of passing this module. Together with the Cisco course that I am also doing at TVU, this module gave the sensation that I am really at the University, and have to study hard. I should not underestimate this module just because it is a part-time course or because I solve problems at work every day.

Again, on the lectures for today, we were told about the dangerous of plagiarisms, and I discover that we even have to do an exercise about the consequences that this sort of academic behaviour can bring to you. I found this a bit too much "off course" (not moving in the intended direction). It was ok to be told about the plagiarism in the first week, but to be told again and to do an exercise about how to avoid is considered to me as a waste of time. I'd have preferred to have done an exercise about the different techniques to present a subject to the public for example. The plagiarism is to me so obviously wrong that it is just common sense to avoid it. It is like spending value lecture time telling you that murder is totally wrong (we all know that), and even doing a work about the consequences of murdering someone.

Week 3 - 21st November 2009

1. The art of selling

The part that I like the most about the lectures today were the one related to how do you present your work, idea or project to a group of people, how effective can you be and what things should you consider to perform a successful presentation. This is an area of the module that I will be paying close attention, because there are some hierarchical changes coming to the structure of my work: my boss is retiring soon and I am hoping to present soon to he head teacher and senior teachers of the school where I work, my proposal for the ICT development in the school, hoping to get the position of my boss once he leaves.

Self-confidence is a key factor to carry out a good presentation; however I am a bit worry to discover that a presentation is also a form of art, where the more you do the better you become in the future. I would probably be very bad at presenting, despite my solid self-confidence, and that lack of skills to present myself in a professional way and selling my ideas could be a restrain at the time of climbing steps in my career.

2. Presentation guidelines

More emphasis were placed on the tasks of planning and preparing the presentation during today's lectures, and we were given good tips to improve the effectiveness of our presentations like not including too many slides, asking short questions to the audience to get them interested (questions not too complex so that they can be answered with yes, non or by raising hands) and ensuring transparency an simplicity on your language with final the aim of getting the message across.

Once thing that I've learnt today and that I never considered was the importance of the body language, it basically acts as another instrument that will help the presenter engaging the audience and captivating their attention. Research on the subject presented and rehearsal of the presentation slides before exposing it to the audience are crucial. One of the best advices given by the lecturer was to start the presentation with a joke, something funny and simple in order to win the audience, because if you start been bored it will be very difficult to win them back later.

3. Visualising the problem

In this third session of the module we were shown the most significant and interesting power point presentation of all during the lecture, at least this is my sincere opinion. The presentation was called 'Problem Solving' and I had the sense that this was really the matter that gave name and shape to the module itself; all the contents of today's lectures were really helpful with hands-on techniques about identifying and understanding the problem, as well as evaluating the situation and selecting the best solutions for the problems.

With all these tips in my head and my notebook at hand, I took some significant steps to solve a major problem that we have at work: our Internet connection goes extremely slow at times. It was really difficult to find out what was causing the problem. Taking every part separate of the network was working fine and replacing parts like switches and cables had made no differences. I still haven't solved the problems but I've been gathering data systematically and continuously with the hope of identifying the bottleneck soon.

4. The flowchart strategy

I studied flowcharts ages ago at the school, but at that time their symbols and meanings passed through my eyes like the language of an ancient civilization, whose characters and lines had more resemble with Egyptians hieroglyphics than with our rich and more swift understanding language. Needless to say that, at that time, I considered the flowchart techniques a tedious obstacle towards the energetic way I had of solving problems: get it, sort it and fix it.

The new light of this module moved away the shadows of ignorance I had in the pass, and the first glances of the powerful problem analysis charts using flowcharts were shown to me during this lecture. The wise that normally walk alongside the age, approaching to the individual as they get older, suddenly bloom on my head and I re-discovered the flowcharts symbols as a way of undressing the problem in logical sequences interrelated with causes and effects, very practical strategy for showing a problem naked.

Hard / Easy findings

A few days after the lecture of this Saturday, I had the impression that I was approaching to the rapids sections of this modules' river, increasing the speed and turbulence of the amount of work I had to do to successfully pass this module, as well as the Cisco component. We were given exact deadlines dates for the reflective diary to be handed out, together with the exercises that we have to do and the ones that were discarded. I would have preferred to know this dates earlier in the module, when the waters of the river were calm, and though we still got plenty time to do all the tasks, I do feel now that we are immerse in the module and reaching the summit, hope not to run out of oxygen before that.

Despite of all the work and research that we suddenly have to do in order to complete exercises and diaries, I am very happy to have found the module notably relevant to the current period I am going through in my career, when my boss is leaving at the end of this year and I will be presenting fairly complex subject to a relative large audience. This module is not giving me just the techniques and methods for troubleshooting problems, but also the additional knowledge and experience of performing professional presentations, thus increasing my confidence.

Week 4 - 28th November 2009 and 9th January 2010

1. The programming jungle

The wall of programming raised in front of us today, it appeared out of nowhere in this module, as if there was some sort of strange relation between solving a problem (developing analysis, performing research and planning to solve a problem, terms that I understand and I am more or less familiar with) and programming, that task of developing a piece of software to carry out a given activity. I always found programming very difficult because it turns a simple task (for example, I want this button to do that when clicked) into a very complex paragraph and lines where the slightest mistakes is punished with an obscure 'unable to run' error message.

I have seen this wall of programming before, and I am scare of it. Names like Java, Delphi, Pascal, etc mean very little to me and I couldn't tell the difference between one line made with a programming language or another. Programming has always been the area of IT where every time I tried to step into I have finished in frustration. A few times I have been required to create .asp code to support the school website, or to create queries (fairly complex to my believe) using sql on our school database; an every time it has been a nightmare: me browsing the web like crazy trying to see examples of a code that could do exactly what I need, without understanding a word of what I was looking at. This is why I have paid close attention to this section of the module.

2. Operators and statements

The first thing you have to be familiar with in the world of programming is the concept of 'variable', a symbolic name associated with a value that could change. We spent a good deal of time understanding the concept of 'declaring variables', and how this crucial step needs to be perform at the beginning of the program. The user can then later add values to the variables by inputting them on the 'text boxes' that the programmer will have to design on their program. Lucky us, we didn't have to create any code to generate the text boxes, and this is one of the advantages of using a 'Visual' language for programming: you only have to worry about the code for the event handlers.

Statements were a bit more difficult to comprehend; they are like instructions that use the variables to execute something, returning a value or a result. Statements and operators are the core of every program, and I realised that a good understanding of their type and arithmetic expressions is crucial if you want to understand a paragraph of programming. The problem is that, for each different programming language, the nomenclature of statements and operations can change substantially, thus leading to confusion and presenting you with the question: what programming language do I want to learn? If they are so different, I better chose to learn the most popular one, because the last thing I want to do is to dedicate time an effort to learn a language that then nobody uses. It is like learning a foreign language, what would you choose: Spanish, Bulgarian or Senegalese? This has always been a bit of a concern to me in the rare occasions when I've been thinking about learning a programming language: which one do I choose?

3. The object concept

The explanation and examples given to us by the lecturer to get the message across about the concept of object-oriented-programming were really useful. The idea

that everything in the world is an object and that, as such, each object have got unique properties that can have different values, helped me out to digest the notion of objects in related to programming. The example of an object (a car) with a property (engine) and two different values (diesel or petrol) is a beautiful example for a novice like me to grasp the theory of what programming is all about.

It may sound very simplistic to someone who already knows something about programming, and is familiar with the idea of writing a paragraph in English that only a machine can comprehend. But to me it is totally gibberish when I have to read a paragraph of code, making it worse perhaps the fact that English is not my first language.

This concept of object oriented has faded away a little bit the fear that I had with programming, together with the idea that I really want to pass this module and therefore I got to be patience and assimilate all this. After a few days playing around with the program we use to create code, I began to understand a bit more, and when I look at a paragraph of coding the first thing I try to do is to identify where the possible objects, properties and its variables are. I have to admit though that it helped me out a lot, quite a lot, a book that I bought called "Visual Basic.net for Dummies". Good thing that it was a bargain.

4. Visual Basic

Though in some of the slides of the presentations that we were lectured with, we were shown that it will be Delphi the programming language that, by default, we were going to learn at the University, it was at the end Visual Basic the language that we were told would be the platform of our initiation to this complex world of programming. Visual Basic will therefore be the language by which our knowledge and assessment of this section of the module will be measured.

I've heard a lot about Visual Basic and I know it has been developed by Microsoft. I was comfortable with the idea of having to learn this language because all the application and Operating Systems that we have at work and that I've always use, have been developed by Microsoft. It makes sense to me to learn a programming language that is directly related to the popular products I use every day. This is why a few days after the lecture, I went ahead and bought the book for dummies about Visual Basic mentioned above. It is true that on the first lecture we were given a thick booklet with all the tips and exercises that we needed to know, but that booklet is very practical and concise, and it goes straight away to the core of the module without giving you, for example, a small introduction about the program that we are using (Visual Basic Studio 2005) and its many features. Fair to say that the lectured, on the first session, gave a small chat about how to use the interface for Visual Basic Studio 2005, but I am pretty sure that everybody forgot 10 minutes later. Even if I would have made notes about the interface, it is always better to have some sort of screen shots of the program on paper with a brief description of what everything does, so you can find your way around. And the dummies series books are perfect for this.

During the second Saturday of the programming module, the tag of 'basic' disappeared of the programming language that we are learning. It is still called Visual Basic but now is not basic anymore. We were shown about validation entries and code that add a number to the memory of the computer and then add it back to another value that we input. All these operations seems to be pretty complex, and I am afraid is only the beginning.

Hard / Easy findings

No need to say again that programming is the black hole of my IT skills: lots of energy inverted into it and the only result has always been blackness. These last two sessions of the module were for me the hardest, specially the last one that was based all about Visual Basic. And one of the things that made the last session so hard and tedious, was that we were told in the lecture about how to do programming in a passive way: the lecturer showed us some examples of programming, like creating a calculator using the Visual Basic Studio 2005, coding the buttons and checking for errors, but we could not experience what we were lectured because we weren't in a computer room. I strongly believe that there should be a designated IT room for lectures related to the concept of programming or coding where the use of a computer is vital. That IT room should have not Internet, of course; else students will waste their time on social networking sites and will pay little attention to the lesson. But if this IT room existed, students will have the possibility to recreate on their computers exactly the same steps that the lecturer is doing on the projector, thus enhancing their visual memory and learning.

We went to the labs in the 3rd floor after the lecture, and they are poorly design for teaching because half of the students face their back to the projector. In the labs we were supposed to so some practical, and I did not know what to do at all. All right, I have seen the teacher using the program in front of my eyes barely half an hour ago, but I could not possible replicate on the computer what I have seen, and I felt frustrated. We would have enjoyed a much better learning experience if we were to try the commands that we are learning at the same time that the teacher is explaining them to us.

One of the positive aspects I have found about these two sessions is that we were told from day one what is exactly expected from us, in other words what is required from our side in order to pass this module : the final assessment that we have to hand out. It turns out to be, naturally, a program that we have to design with lots of features and not a clear path that will show you how to develop the program properly. I just hope that in the next few sessions I will learn more about Visual Basic, and then be able to stand with confidence in front of the Visual Basic Studio 2005 program an extract from it gently the program that I need to create. I know from this very moment that the dummies book I bought will be of a great help, as well as the thousands of pages and tutorials that you can find on the Internet about Visual Basic. I am glad that the relevant board at the TVU chose such a popular language for the programming module.

Conclusion

At the beginning of the Reflective Diary experience I thought that the task would be hard and time consuming, with me spending hours squeezing my imagination trying to figure out what to write in the Diary. However, as I was written on, the thoughts, feelings and impressions about the module came out by themselves and I have to admit I have enjoyed this task of composing a Reflective Diary, specially when they could be as informal as you like, thus giving you green light to express yourself in a way that would be the best match for the learning process that the attendance of the module carries on.

I understand the purpose of the Reflective Diary as a way for the student to be rational and critical about his own learning experience, and that has given me a better understanding of myself and the things that I have done through this module: I didn't just turn up to the lessons and do as I was told, I actually learned something and most importantly acquire experience about how to deal with new knowledge.

I felt sometimes that this Reflective Diary has been in a way like a scientific experiment, when me (the doctor), armed with a white dressing gown, is sitting down in the lab looking through a microscope to a compound of chemical substances, taking notes about the chemical reactions that occurred every week. If we left fly our imagination we could say this compound is form of 90% me, 1% TVU environment, 1% the module coordinator, 1% the module subject, 0.1% flowcharts, 0.1% programming, etc. The hidden danger of this sort of experiment is that the doctor is actually the biggest part of the compound: he is indeed analysing itself and therefore can never be objective. He can never be sure if his notes (the Reflective Diary) are the output of the whole process he is observing or, because he is observing the process and is part of it, it has generated, as part of one particular reaction, the output of creating a Reflective Diary.