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# **In Our Own Words: The Triumphs, Trials and Tribulations of our Self-directed Learning Experience**

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## **Abstract**

*As long as technological and social innovation and change continue at the current rapid pace, the profile of the ideal IS graduate and perfect undergraduate IS curriculum will remain open for debate. What is, however, gaining more general acceptance across many professions and disciplines including IS, is the need for university graduates who are ready and able to embrace and succeed in self-directed lifelong learning. In support of this, many undergraduate programs now include self-directed learning (SDL) projects as an integral part of their teaching and assessment. This paper presents the students' own experience of a SDL experience undertaken in conjunction with a team-based systems analysis project in their second year of study. Using extracts from learning journals, learning contracts, portfolios of evidence and reflective writing pieces, I aim to present a student account of their successes and challenges in undertaking SDL, as one evaluation of the experience.*

**Keywords:** Self-directed Learning, Lifelong Learning, Personal Development Portfolios, Reflective Writing, Learning Journals

## **1.0 Introduction**

Complex and dynamic, Information Systems (IS), grows and changes its knowledge domain as rapidly as its underlying enabling technology, resulting in educational challenges for industry and academia alike. Organisations and practitioners need effective lifelong (career-long) learning coupled with tolerance for on-going change. Academics must design curricula to support graduates' immediate and longer term career success.

This challenge is not unique to IS with the half-life of knowledge of many professions being variously estimated at between two and twelve years (Wulf & Fisher, 2002; Dublin, 1988; Livneh, 1988; Frandson, 1980). Countless studies in health sciences, education, law and engineering attest to the urgency of developing capacity for self-directed lifelong learning in future professionals.

Responding to this, a Personal Development Portfolio (PDP) was incorporated into a second year systems analysis course in order to raise awareness amongst students of

the “real world” need for on-going self-development based on individual skill and knowledge requirements. In addition, it would provide students with the opportunity to experience SDL within the context of more traditional guided learning.

In order to evaluate the design and implementation of the PDP intervention in terms of its ability to respond to the challenge of preparing graduates as willing and able self-directed, lifelong learners, a case study based research project was undertaken. In this paper, selected aspects of the on-going wider research project are presented, with an emphasis on giving voice to the students’ experience of the PDP. The aim is to identify and understand both the learning and successes that occurred, as well as where students are experiencing challenges or problems.

## **2.0 Background and Context to the PDP and Research Project**

The PDP forms part of a second year IS course for BCom students majoring in IS at the University of the Witwatersrand (Wits). In common with local and international curricula, the second year of study in IS at Wits focus strongly on systems development, covering the systems development lifecycle (SDLC), from initial business problem or opportunity through to the delivery of a working information system.

The PDP was conceptualised around stakeholder roles in the SDLC, specifically the knowledge, skills and values required by the various stakeholders. This exposed students to SDL in a meaningful but focused area, strongly linked to the core learning, team project work and assessment of the overall course. Complex core disciplinary knowledge (where selection, sequence and progression are vital in ensuring coherence in the curriculum) is therefore not compromised.

## **3.0 Review of Guiding Literature and Design of the PDP**

Driven and supported by technological and social change, the workplace of IS and IT professionals has changed in terms of its structure, worker location, type and nature of work and the way it is done, and the communication tools used (Lynch, 2004). “[R]outine processes, individual tasks and isolated work” are being replaced by

“mobility, technology supported, group and individual projects” (Kaplan, Docherty and Fitzpatrick, 2002, pg. 2).

McMurtrey et al. (2008) and Lynch (2004) suggest universities have a responsibility to ensure that new graduates are prepared from the start of their careers with skills that will allow success in the continually changing IT industry. Ross and Ruhleder (1993, as cited in Turner, 2004) argue that IS curricula should instil sensitivity to change in social and organisational settings, and develop the ability to self-learn in an environment of rapid technological change.

### **3.1 Lifelong Learning (LLL)**

Lifelong learning traces its roots back to the UNESCO document “Learning to Be” (Faure, 1972) which promoted democracy through education, self-actualization and the pursuit of the “whole man” and “learning society” through life-long education.

Accreditation standards for the majority of professions now include both continuing professional education and that graduates are prepared to undertake lifelong learning (Houle, Cyphert and Boggs, 1987). Knowles (1975) and Tough (1979) were early supporters of the need to incorporate SDL into formal learning, while Candy, Crebert and O’Leary (1994), and Knapper and Cropley (2000) all propose supporting students in higher education in learning how to learn.

### **3.2 Self-directed Learning (SDL)**

“Self-Directed Learning is that process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing learning strategies, and evaluating learning outcomes” (Knowles, 1975). The term “self-directed learning” variously describes two distinct aspects of SDL; self-direction in terms of approach, method or process, and secondly characteristics, goals, products or outcomes in terms of learner orientation. Little evidence exists relating the process of SDL and the goal (Candy, 1991; Brockett & Hiemstra, 1991; and others). Candy (1991) views the process of SDL as consisting of learner-control (self-direction) in an instructional situation as distinct from autodidaxy in a self-instructional situation. From the ‘product’ perspective, Candy separates self-

management (willingness and ability to undertake one's own education) from self-determination (personal autonomy).

SDL is often linked with adult education and andragogy (Brookfield, 1985; Brockett & Hiemstra, 1991; Pratt, 1988), with a core underlying assumption "that learning in adulthood means growth in self-direction and autonomy (Candy, 1991; Knowles, 1980; cited in Caffarella, 1993).

### **3.3 Teaching for Self-direction**

Brookfield (1985) argues against the assumption that all adults are by nature self-directed learners, with clearly defined "felt needs", simply requiring educators to facilitate learning to meet these. He acknowledges the importance and role of the learner in determining what they wish to learn, but argues that educators have a responsibility to provide guidance and support to learners in determining their educational needs. Hiemstra (1994), too, recognizes that learners need support in learning the skills necessary for SDL; how to learn, what approaches and resources are available or suitable, and how to self-evaluate learning. He further argues that creating opportunities for some learner control is, in most cases as important if not more so, than the content of what is being learnt, despite the challenges and complexity this adds to the teaching process.

Pratt identifies self-direction as "a situational attribute, an impermanent state of being dependent on the learner's competence, commitment, and confidence at a given moment in time" (Pratt, 1988, p. 162). Caffarella (1993) suggests that the desired level of learner control varies by situation, depending on learner readiness, knowledge content and necessary instructor control. Instructors using SDL approaches should expect "diversity both among students and across situations for the same individual and be prepared to make adjustments in expectations or level of support" Ross-Gordon (2003, p. 44). Brockett and Hiemstra see self-direction as a continuum "for all persons and in all situations" (1991, pg. 11).

Grow (1991) developed a Staged SDL (SSDL) Model based on Hersey and Blanchard's Situational Leadership Model (1988, as cited in Grow, 1991), which aims to identify students' current readiness for SDL and teaching accordingly. Readiness is

defined as a combination of motivation and ability, and is seen as potentially situational or task specific.

Stage	Student Readiness	Ideal Teacher Role	Examples
1	Dependent – low self-direction	Authority, Expert, Coach	Informational lectures Immediate feedback
2	Interested – moderate self-direction	Motivator, Guide	Inspirational lectures Guided discussion Goal setting, learning strategies
3	Involved – intermediate self-direction	Facilitator	Facilitated discussion Seminars Group projects
4	Self-directed – high self-direction	Consultant, Delegator	Dissertation Internship Individual work Self-directed study group

**Table 1. Grow's Staged Self-directed Learning Model (1991)**

Although the SSDL model is designed with progression through the various levels in mind, the progress of both individual students and classes is unlikely to be linear as SDL is situational, and any class is likely to have a mix of levels of SDL readiness amongst the students. This led to Grow's non-linear iterative SSDL in which a program is organized around one particular stage but draws on other as appropriate (Grow, 1991).

Other models and ideas for incorporating SDL into formal learning are proposed by Candy (1991), Hammond and Collins (1991), Hiemstra and Sisco (1990), Knowles (1975 and 1986), and O'Donnell and Caffarella (1990).

### **3.4 Skills, Values and Learner Attributes for SDL**

Knowles and Tough identify the following skills as necessary for SDL as the ability to self-analyse and diagnose learning needs and set appropriate learning goals, develop learning plans, specify appropriate resources and strategies, and implement the plan and evaluate the learning.

Similarly, Brookfield (1985), Candy (1991), Candy, Crebert and O’Leary (1987, 1994), Hiemstra (1994), Knapper and Cropley (2000) and Knowles (1984) define the characteristics of effective LLL as the ability to: set learning goals; identify and apply appropriate knowledge and skills; undertake self-evaluation; identify and obtain required information, and use varying learning approaches. Guglielmino and Guglielmino (2003) further identify the skills of time management and organization as critical for SDL.

Candy identifies the values of self-restraint, self-discipline and persistence, and a willingness and ability to undertake one’s own education (1991). Garrison (1997) introduces self-monitoring “through critical reflection and collaborative confirmation” of learning (pg. 24) and self-management of learning tasks. Brockett and Hiemstra (1991) identified learner self-direction as “being a personality construct”, with taking personal responsibility and ownership for the required behaviors and thinking as being fundamental to self-direction.

Guglielmino’s (1977) Self-Directed Learning Readiness Scale (SDLRS) measures openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility for one’s own learning, love of learning, creativity, future orientation, and ability to use basic study and problem solving skills. She also identifies “a willingness to seek help” and “valuing your own learning” as important attitudes for success in SDL (Guglielmino and Guglielmino, 2003).

### **3.5 Challenges of Developing Students as SDL**

Readiness for SDL has an impact on what students learn from an SDL intervention and the degree to which their skills for on-going SDL are enhanced (Dynan, Cate, and Rhee, 2008). Dynan et al investigated the importance of structure for students undertaking SDL studies, and found that a level of structure and guidance was important for those students scoring low on the SDLRS at the start of a SDL experience if they were to enhance their skills for SDL during the task and undertake SDL tasks in the future.

Fellows, Culver, Ruggieri and Beston describe the majority of contemporary students as “Utilitarian Academics” for whom “the goal of gaining an education as a means of becoming a total person has become lost in the drive for certification in a professional field with prestige and high financial compensation” (2002, pg. F2A-12). They further suggest that these students “rarely put effort into anything for which they do not get academic credit” (2002, pg. F2A-13).

Similarly, Morton et al (1999) report that one of the challenges encountered in introducing learning contracts and self-directed learning as part of a final year law program, was a lack of internal motivation. Despite being voluntary, many students felt pressurised into doing the program in order to enhance their resume, and their motivation was therefore external. Knowles (1984) does not believe external motivation to be sufficient to drive self-directed learning.

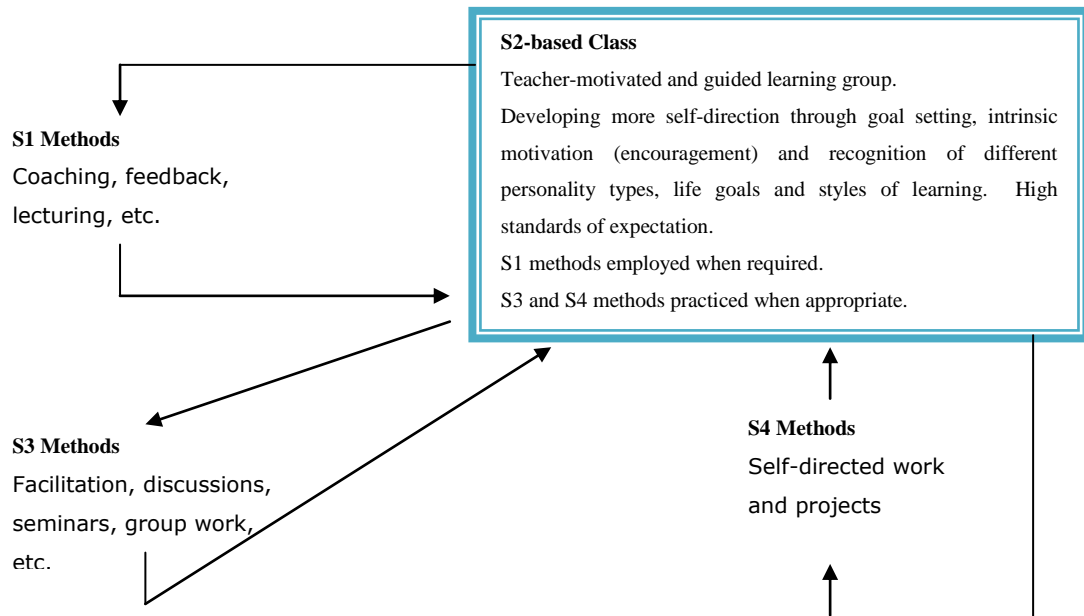
### **3.6 Designing the Self-directed Learning Experience**

When designing the SDL experience, the focus was on developing an awareness of the need for SDL skills for on-going professional development, as well as developing some of the skills necessary for undertaking SDL. The students in question are young “soon-to-be” adult learners and therefore do not as yet necessarily display the typical characteristics of adult learners such as felt needs, self-direction, voluntary participation, critical reflection, and so forth (Brookfield, 1985, Morton et al, 1999).

The SDL experience was organised around the Stage 2 level of the non-linear iterative Staged SDL Model. The role of the teacher at this stage is supportive, enthusiast and motivational, and promoting the importance of knowledge and skills. Goal setting and various learning strategies are used.

Students are helped to progress towards the stage 3 level of self-directedness, where goal setting, moving from extrinsic towards more intrinsic motivation, and using encouragement and support rather than rewards and praise, is appropriate. Over time students should develop a deeper sense of their goals, personality type and preferred learning styles (Grow, 1991).





**Figure 1: A Stage 2 based class - Adapted from The Staged Self-Directed Learning Model – Non-linear, Iterative Approach (Grow, 1991)**

### 3.7 The Personal Development Portfolio (PDP)

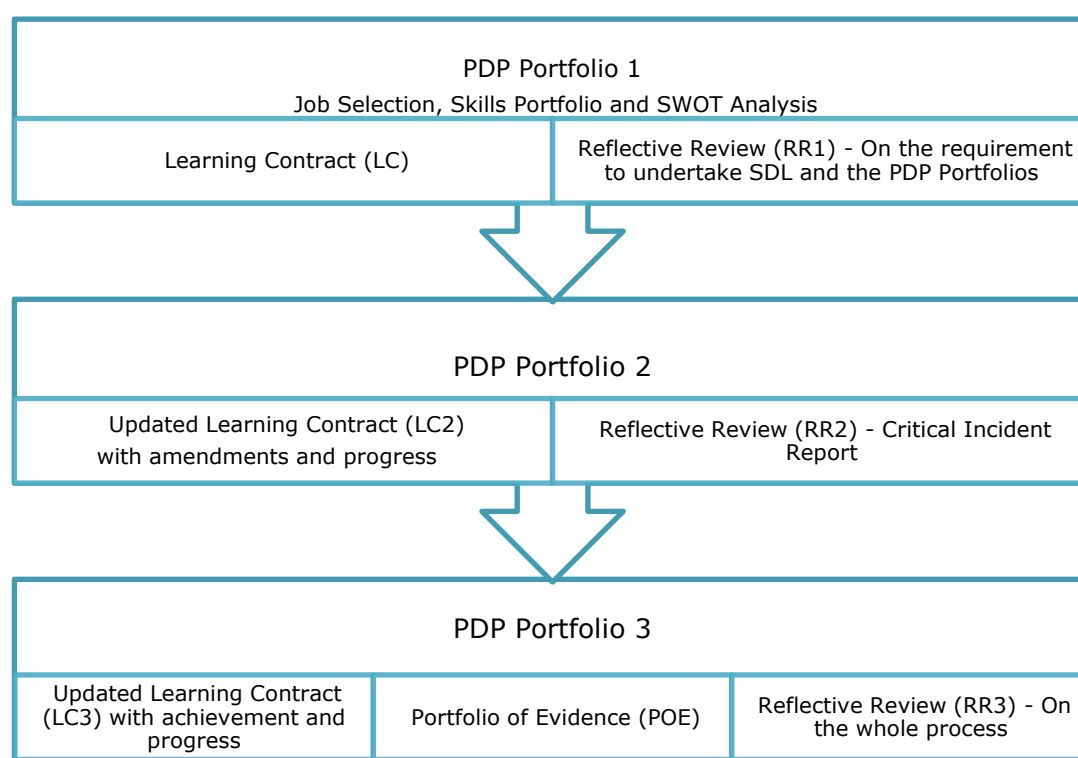
The SDL experience was conceptualized around a PDP in which students are challenged to start developing a professional identity. The PDP was completed over the first semester, with 3 submissions occurring at the beginning, towards the middle and end of the semester.

**PDP Submission 1:** In the first submission, students were asked to do the following:

- **Ideal Job Profile** – find an advertisement for their dream job, and draw up a profile of the knowledge, skills, experience, attributes, interests, and attitudes, that an ideal candidate for the position would possess. This created a relevant context for SDL and included an aspect of the curriculum.
- **Personal Analysis** – position themselves against the required criteria they had identified using a SWOT analysis. This was used to establish “felt needs” (Brookfield, 1985) and to provide students with the opportunity to self-analyse their knowledge and skills in a particular context and identify any knowledge or skills gaps (Knowles, 1984; Tough, 1979, and others).
- **Personal Development Plan** – choose **two or three** aspects of the knowledge, skills, values, etc. that they would need to acquire or develop prior to landing their dream job and define these as learning goals using a learning contract - specifying resources and strategies, how they would demonstrate, measure and evaluate their progress towards attaining these goals, and their motivation for selecting them (Tough, 1979, Knowles, 1984). Students were not expected to reach the final point for a goal, but to make progress towards it.
- **Reflective Review** – keep a learning journal to both to record and report on work towards their goals, and reflect on their progress, successes, difficulties, etc. The

journal should be used as a resource for writing their reflective reviews. The reflective review for their first submission asked them to write about their feelings relating to this portfolio with guiding questions.

**PDP Submission 2 and 3:** The two subsequent submissions required students to report on progress and update their learning contract, and to write a reflective piece; in PDP 2 on a critical learning incident relating to their learning goals, and in PDP 3 relating to their overall experience engaging with the SDL portfolio. The final portfolio piece also required the inclusion of a portfolio of evidence (PoE) in which students would include aspects of their resources, strategies, and demonstrations of learning and achievements as specified in their earlier learning contracts.



**Figure 2. The Personal Development Portfolio (PDP)**

## 4.0 Research Methodology

This paper reports on aspects of a larger study which had a twofold objective: evaluating a particular learning intervention in terms of the opportunity it provided students for developing as self-directed learners, while also exploring the potential for mediating change in the learning environment.

Conceptualised as an evaluative case study (Bassey, 1999), the research project was empirically based, and organised around the collection, analysis and interpretation of data relating to a specific cohort of students undertaking a SDL based learning intervention, the PDP. The case study was thus largely intrinsic in nature (Stake, 1995) as the overall interest lay in evaluating the PDP in terms of the opportunity it creates for students to develop the capacity for SDL.

The stories portrayed in this paper provide some illumination on the first aspect of the research, the use of the PDP to facilitate development of SDL. Preliminary work relating to the second aspect, mediating change in a learning environment, has been reported in a working paper (Benvenuti, 2011).

#### **4.1 Towards Rigor and Quality Assurance**

“While the inquiry paradigm in which one works establishes “limits of legitimate enquiry” (Lincoln and Guba, 1986), the unique nature and demands of each qualitative or naturalistic research project ensure that researchers need to make methodological choices. In aiming to satisfy Bassey’s urging for “the ethic of respect for truth in case study research” (1999, p 75), the approach used in this evaluative case study (Bassey, 1999) draws on Maxwell’s strategies for minimising validity threats (2005); Lincoln and Guba’s concepts of trustworthiness, authenticity and dependability (1986); Patton’s Social Construction and Constructivist Criteria for judging quality (2002); and Morse, Barrett, Mayan, Olson and Spiers’ verification strategies (2002).

#### **4.2 Data Selection and Sampling**

Purposive sampling was used in this study, taking into account Maxwell’s goals of representativeness, heterogeneity, inclusion of critical cases and comparison (2005). Furthermore, as recommended by Merriam (2011), criteria relating to the purpose of the study were established both for identifying the specific participants, as well as the actual data sources. Care was taken to ensure that information-rich data was available for all the chosen participants (Patton, 2002).

A set of quantitative data was generated (the whole population’s marks for the various parts of the PDP together with their exam marks) and used to inform the sampling.

The data was used to rank the class by exam mark and divide the class into four groups; top, upper-middle, lower-middle and bottom based on their final exam mark, in line with Cohen et al's dimension sampling (2007) in which achievement in exam marks relative to PDP marks was of interest.

The sampling was further informed by looking at the top 10 PDP based on PDP average over the three submissions, as well as top 10 achievers based solely on the PF3 submission. This identified students who had excelled in the PDP but who were not necessarily in the top 10 students based on exam results. Students in the bottom 10 of the class by PDP average were also identified. One or two participants from each group were selected to represent that set of students with interesting (outlying) students whose PDP achievements were markedly different from other students within the same group also included.

#### **4.3 Data Types, Sources and Methods of Collection**

Several different types and sources of data were used in examining this case study. The criteria for data selection included the need for data that allows for the examination of the students' experience, progress and achievements. In particular evidence is needed of the opportunity for developing skills, attributes and values relating to SDL, and the acquisition of these by students.

The data used comprises a variety of student submissions for the PDP including learning contracts (initial, revised and final versions; LC1, LC2, LC3), various reflective writing pieces responding to questions or issues related to doing the PDP (RR1, RR2, RR3), portfolios of evidence, and learning journals (LJ). Cohen et al (2007) suggest possible benefits associated with learning journals and student work are "little or no reactivity on the part of the writer, particularly if the document was not written with the intention of being research data" (pg. 201); evidence of change over a period of time; the dynamics of a situation at a point in time if the documents are written " 'live' and *in situ*" (pg. 201); and the surfacing of "personal details and feeling" which might otherwise not be drawn out.

This data provides several different perspectives for the study; student accomplishment is present in learning contracts and portfolios of evidence; their views or beliefs of their accomplishment is evidenced in their reflective writing, progress claimed in learning contracts and portfolios of evidence, and journal entries.

Their feelings and emotions as reported in their reflective writing and learning journals provides yet another perspective on the PDP experience.

## **5.0 Findings: The Students' Stories**

A full narrative describing their SDL journey was constructed for each of the eight students chosen as the sample. On average the narratives were around 2200 words conveying detailed accounts of each SDL experience. Narrative maps and thematic analysis was used in constructing and interpreting the narratives. Excerpts from these narratives are used here to paint a more general picture of how the sample group of students experienced the PDP. In particular, their view on the importance and value of SDL, and the benefits and challenges of completing the PDP are portrayed.

*Note: The students' own words have been used as far as possible to illustrate their stories in order to allow their voices to be heard. Out of respect for their efforts, I have not edited the extracts, quoting them verbatim. Many of the students are not first language English speakers and their journals in particular contain unstructured or colloquial language, though often very expressive or revealing. Extracts are drawn from Portfolios (PF1, PF2, PF3), Learning Contracts (LC, LC2, LC3), Learning Journals (LJ), and Reflective Reviews (RR1, RR2, RR3) and coded as shown here.*

### **5.1 Meet the Students**

The sample of students was selected purposely based on their representativeness of segments of the whole cohort of students in terms of their achievement in the three parts of the PDP and the results they obtained in writing the final course exam. Marks obtained for the team project and class tests were not considered. Students are referred to by coded initials as aliases might imply particular demographics or groupings which were not taken into account in this research.

Table 3, showing the sample mix and Table 4, giving a brief description of each of the students included in the sample is included in the appendix to this paper.

### **5.2 The Perceived Value and Importance of SDL to Students in Relation to their Future Careers**

Few students commented on the value or importance of SDL in relation to their future careers. NS sees benefits early on, ending her initial reflective review saying “With the constant changing technology so does the requirements for careers change, in any

career especially my own, motivation, experience and the continual aptitude to learn are the foundations of a successful career...” (NS-RR1).

CB, a strong student, initially dismisses the PDP, “At first I thought this was just a run of the mill research piece that would serve no meaning...I was even annoyed to discover what comprehensive research was required...” (CB-RR1), but later realises that “... the field is not really about how much you know. With rapidly advancing technology and languages and tools being constantly invented, it is rather about how much you are prepared to learn and whether you will be self-motivated enough to teach yourself” (CB-RR1). “I must be willing to persevere and overcome difficulties... The IT and IS environments evolve rapidly and it is essential ... to be confident in my own ability to learn continuously if I am to become part of the professional environment” (CB-RR2).

HL eventually perceives value in SDL in her final reflective review “looking back, I understand the relevance of this development plan to my studies and my career in the long term.” (HL-RR3), while SE acknowledges the need for “an IS professional to be open and willing to try new forms of technology” (SE-LJ).

### **5.3 Perceived Benefits of Participating in the PDP**

The majority of students identified at least one benefit to participating in the PDP, with some identifying several. In most cases these only emerged after some period of engagement with the task. Students also expressed negative views towards the PDP or identified challenges which are described later.

Not surprisingly, given the focus of the PDP, many benefits identified by the students related to jobs or careers. Increased awareness around career options and variety of jobs was raised by students. CB reports “Once I managed to start researching I was surprised by the number of job types available...I had always thought if you were not a programmer, you were most probably a systems analyst or did technical support. I did not realise how complex and extensive the field really is (CB-RR1). HL explains how “Searching for a job and doing research on it has helped me to do away with the misconception I had had about finding a job in the IS sector...this has motivated me to continue studying in this field” (HL-RR1).

Furthermore, the portfolio encouraged student reflection on career choices and paths. SD commented that “This really helps to investigate the area that will best suit your personality and goals in the industry”. HL realises that “before doing this portfolio [she] had not had clearly defined goals” (HL-RR1) while CB confesses that “I have never actually thought carefully about exactly what career I want, beyond being involved in the IS profession. This somewhat shocks me now as I’m not sure how I thought I was going to achieve finding a job without knowing what my options are and what I need to work towards to get there” (CB-RR1).

Strongly related to this, was actually planning towards their careers. MJ acknowledges that “even though I didn’t like this portfolio and even though this portfolio has been a big headache for me, it has helped in a few ways... [making] me aware of what kind of people the companies are looking for”, “how far behind I am in terms of knowledge and skills” and “has motivated me to improve on the skills that I lack for this job” (MJ-RR1). For IC, a career planning benefit was “identify[ing] objectives (soft skills) that will help me to grow as an individual and survive in the corporate world” (IC-RR3).

PDP helped students realise the need to take responsibility for their career development. “[I] realised how much work I need to do outside the scope of my courses if I am to achieve...” (CB-RR3). MJ too realises the need for responsibility. “I had thoughts of replacing my goals with some easier ones that I would be able to achieve easily. Although that would help me now in the short term, I still require those other skills for my career and things will get much easier for me if I start working on them from now” (MJ-LC2).

A second major emergent theme was a developing personal awareness and desire for self-development. HL describes “the highs of completing these portfolios are that I gained a greater insight to my feelings and thoughts because reflective writing forced me to explore them further and I learnt how to recognise how a particular event can affect the way I think and can change the way I react to similar events in the future” (HL-RR3). SE identifies “compiling this portfolio and starting a learning journal” as providing the benefits of “set[ting] me on the road to self-discovery” and “arousing in

me a sense of self-motivation that was previously unbeknownst to me". (SE-RR1). AG sees "this portfolio as a useful tool for working towards self development", acknowledging that "This way of self development only works if the person sets ~~aside~~ goals that he or she would like to achieve" (AG-RR1). For IC, "Doing a personal development plan helped me to reflect and identify myself" (IC-LJ). "It was challenging, stressful and at the same time motivating because it helps you identify your personality" (IC-RR3).

This was coupled with a growing awareness of personal strengths and weaknesses. CB "ultimately discovered a few things about myself such as that I will need to work on self-motivation if I am to achieve any of the goals I set myself ... and that I am definitely capable of teaching myself new things" (CB-RR1). HL describes how "I embarked on this short journey of 'self-discovery'... I came to the conclusion that it's not often that people look internally to evaluate or even reflect on their flaws" (HL-RR3). SE realises that "I had made a great personal discovery during this time...it came as quite a surprise to discover that good communicational skills are invaluable to a team leader. ...I am determined to further develop these skills" (SE-LC2). AG learnt "that I am a good leader and that I have certain skills that I never even thought of, such as conflict management skills" (AG-RR3).

Students took pride in achieving meaningful goals. AG indicates "Overall the experience of pursuing these development goals was a positive one ... some goals I viewed as more important and my efforts and motivation towards achieving them were according to that" (AG-RR3). His original goals "were formed by direct influence of what I think my future career would require me to do, but it later turned out to be helpful skills to have in everyday life" (AG-RR3). NS describes how "I was eager in starting my goals as I thought it would be achievable within 5 months time...but I realised how hard the actual undertaking of a goal is. It's easy to state goals but another in achieving them as there has to be an incentive or lasting motivation for me...I haven't totally reached it but it is in the process" (NS-RR3). CB concludes by saying "although I did not give myself all the opportunities to grow during this project that I should have, I did progress towards my goals and I am proud of what I have achieved" (CB-RR3).



IC indicates in his writing that despite making little effort and achieving little progress, that he has learned something from the PDP experience. “I always thought to myself, ‘be positive and everything will work out fine’. The portfolios and the milestones taught me something different in a way that sometimes you have to sacrifice everything even your social life if your want to survive” (RR3 and LJ). AG makes progress in realising that despite not achieving a goal, “this was not a major upset because I can still continue to pursue this goal ... I consider this goal as unachieved and plan to continually work on it until I perfect it, maybe even changing the title of the goal” (AG-LC3).

#### **5.4 Student Difficulties and Challenges in Participating in the PDP**

Participants also expressed some negatives towards the PDP, particularly early on in the process. For several participants, the issue was time. “Although this portfolio has been a little helpful I still think that it wasted a lot of time...” (MJ-RR1). “...and completing these portfolios would take me a considerable amount of time” (HL-RR3). “I had lots of fun working on my developmental goals, but hated having to take out time to document them for submission” (SD-RR3).

Time management appears to have been an inhibitor for students in pursuing their PDP goals, with several issues arising. It was also a popular learning goal, chosen by MJ, SE, AG, IC and NS. Time management was also identified by HL as a goal in her LC, possibly as a *felt need*. “I spent most of today putting my file together...I was really trying to avoid doing things last minute but things never go as I plan! I barely had enough time to do my portfolio” (HL-LJ).

CB responds to her time management problem by adding it to her development plan during PF2. “I originally thought I was reasonably good at this but I have found that I have felt rushed and stressed this entire block in terms of finishing projects and studying for tests” (LC2). CB hopes for immediate benefits in working towards this goal, being able to “apportion time for myself to study and work on projects each day, as well as being able to give myself slots for free time ... [which ] helps me work better during the times I assign for myself to work.” (CB-LC2)

Conflicting demands on student time is also problematic. A heavy workload across all subjects “which is making me feel very stressed” (CB-LJ) results in CB juggling to keep up. “I missed this week’s lab to try to catch up my marketing work which was really stupid because now I’m behind in programming again.” (CB-LJ). MJ explains “It was hard for me to work on all my goals because of the other subjects. It is hard to concentrate on too many things at the same time ... sometimes I would have a milestone or portfolio due and a test in the same week ...” (RR3). Juggling work and studies “sometime one face tradeoff between part time work and studies” is also making it difficult for IC to cope. “Time has never been on my side this whole teaching block, things move quicker test, assignment, etc.” (IC-LC2)

Procrastination has been a challenge for some, with HL reporting that “I finally decided to stop prolonging my work and started my research” (LJ) and SE confessing, “I have been procrastinating...once again I have been putting off studying...I must start implementing my time management strategy.” (SE-LJ)

Students describe underestimating the time needed to do things. IC confesses that “Honestly I didn’t do the portfolio properly because I remember [it] took me 2 hours because I was busy doing the milestone” (LJ).

A benefit from this was that students started identifying and experimenting with time management tools and techniques. HL reports using a detailed calendar to manage time between tasks and short-term goals, because “our MS2 is a disaster. Although we said that we would not leave work for the last minute, its happened again...” (HL-LJ). She demonstrates how important her improved time management is to her, “I’m a bit annoyed because I have a clear idea of the work that I need to complete for each day up until next week and him [a team member] springing questions like the above to me shows that he doesn’t” (HL-LJ).

SE’s 3<sup>rd</sup> goal has evolved into a *felt need*. “I have begun to draw up prioritised ‘TO\_DO’ Lists as per my personal development plan. I hope that it will help me to improve my time management skills.” And later “TO-DO” lists are helping but I am going to start drawing up weekly plans as well” (LJ). AG learns from an earlier incident: “For the next milestone and the portfolio 2 deliverables I planned in

advance, putting time in place for to space out the coursework I had to do” (AG-RR2). NS time management involves “doing a bit of each thing i.e studying in moderation each course which is good” resulting in “a sense of urgency which is good cause I won’t laze around” (NS-LJ).

SE’s time management goal “helped me to stay focused... As team coordinator, I was entrusted with many responsibilities and this forced me to use my time effectively so that the work of the team as well as my own work was completed on time” (SE-RR2). “Weekly-Planners are proving to be of a great help as I am becoming more time conscious and I procrastinate much less” (SE-LJ).

NS is “more conscious of time and I prioritize the work that I have according to the importance or submission time. I was really delayed in the starting and completion of portfolio 1 which really stressed me; I got started as soon as possible with portfolio2” (NS-LC2). “I found time management a vital goal as this semester was hectic with respect to workload, and I found this goal applied in everything...I need to grasp and maintain [this]” (NS-RR3).

Another negative arise was lack of relevance or meaning for the students. “At first I thought this was just a run of the mill research piece that would serve no meaning...I was even annoyed to discover what comprehensive research was required...”(CB-RR1). “My view was that these portfolios would only entail extra work that would bear no significance or have any impact on our coursework and syllabus” (HL-RR3).

Reflective writing and keeping journals was also not popular. Virtually everyone commented on their dislike or difficulty with the journals or reflective writing. NS describes reflective writing as “such a pain, I thought of it as a good way of self discovery but its really lame and boring especially when you writing your thoughts down for marks!!” (NS-LJ). CB “did not enjoy writing in the journal to start with ...” (CB-RR1) while for MJ, “Regarding the journal, I have never kept one before so it was weird, I didn’t write that much in it and I think this is the only year I will be writing in a journal because I am not planning to keep a journal again, unless it’s absolutely necessary” (MJ-RR1).

HL writes diligently and prolifically in her journal from the start, but comments how “at the moment I don’t see how keeping this journal is relevant to the course work or even to my growth/development” (HL-LJ). Discusses this with other students she reports “they also think that keeping a journal can be tedious and seems unrelated to IS” (HL-LJ). A short while later however, she is “really proud of myself for reflecting my thoughts in this journal, or trying to at least” (HL-MJ). The “downside of the portfolios was that I found it challenging to reflect on my thoughts...it was necessary to think deeply...” (HL-RR3).

While writing prolifically, SE explains “I was filled with a sense of dread at having to keep a journal” and “had the preconceived idea” that it would be “unhelpful, boring and a waste of time” (SE -RR1). Later, “surprisingly enough, this journal has begun to grow on me...I find it helpful as it has become a means to record all my emotions and thoughts” (SE-LJ).

## **6.0 Discussion and Way Forward**

Despite a fair amount of recognition of benefits arising from participating in the PDP (such as exploring career options, developing a personal awareness and desire for self-development, examining personal strengths and weaknesses, and achieving meaningful goals) there was a lack of recognition of the value or importance of SDL by the majority of the students. This suggests that the majority of the students did not fully grasp the reason or motivation behind the introduction of the PDP. This is a critical issue, in that it may well explain some of the lack of initial (or in some cases, continued) interest in doing the PDP and the resistance expressed by students at various stages of the PDP.

It is interesting that while students initially engaged in the PDP only in order to meet academic requirements and to obtain the associated marks, over time the emergence of some of the goals as felt needs encouraged students to pursue them more actively. Grow suggests that Stage 2 students are “...available. They are interested or interestable. They respond to motivational techniques. They are willing to do assignments they can see the purpose of” (Grow, 1991). This implies that an approach that conveys the potential value and importance of SDL to the students at

the outset of the PDP should in theory motivate and encourage students to participate more readily.

An overwhelming success of the PDP is the way in which most students became more engaged in reflective thinking, learning and writing over the period. Their open, honest and at times moving writing was humbling to read and will contribute enormously to improving both the PDP and hopefully their on-going learning. The results presented here, together with those relating to other aspects of SDL such as students skills, values and attributes demonstrated in their work, will be used to enhance and refine the PDP for the future.

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## Appendix

	Student	Exam Mark %	PF 1	PF 2	PF 3	Avg PF Mark	Top Ten Avg PF	Top Ten PF 3	Bottom Ten Avg PF
Top (9)	CB	68.9	82%	95%	83%	86.6%	✓	✓	
	MJ	71.9	75%	70%	60%	68.3%			
Upper Middle (9)	HL	64.3	69%	88%	90%	82.3%	✓	✓	
	SD	61.2	0	63%	48%	37%			✓
Lower Middle (17)	SE	54.6	88%	85%	81%	84.6%	✓	✓	
	AG	58.04	57	75	67	66.3%			

	IC	49.8	38%	60%	43%	47%			✓
<b>Bottom (13)</b>	NS	47.3	75%	83%	76%	78%			

**Table 3. Students included in Study Sample**

A brief description of the students and their journeys	
<b>CB</b> represents high achieving students in terms of both exam and portfolio work. Reluctant to start, CB is hard-working and diligent and part of a strong project team, and puts great effort into her PDP work. While her reflective writing pieces were comprehensive and well done, she wrote only sporadically in her learning journal.	
<b>MJ</b> achieved the highest mark for the exam, but is not representative of the level of achievement in portfolio work for high achievers, placing 25 <sup>th</sup> in class on the un-weighted portfolio average. MJ is clear from the outset that he is completing his portfolio under duress reporting only intermittently in his learning journal.	
<b>HL</b> represents the majority of the students in the Upper-Middle group achieving strongly in the PDP portfolios. HL embraces the concept of the learning journal, writing prolifically, openly and with careful thought about her learning and experiences.	
<b>SD</b> falls into the Upper-Middle Group, but performs poorly in the portfolios, placing in the bottom 10 by average. He is included for variance in the Upper-Middle group. SD did not submit work for PF1, made little effort subsequently, and does not submit a learning journal he did not submit one.	
<b>SE</b> represents a 3 <sup>rd</sup> of students in the Lower-Middle group achieving strongly in the PDP, while achieving exam marks spread between 50 and 59%. SE describes the SDL journey as a rollercoaster ride, and writes prolifically and well in both the journal and reflective writing pieces.	
<b>AG</b> represents a similar group of students to SE. His SDL journey started slowly and included little journal writing, but continued demonstrably beyond the PDP.	
<b>IC</b> falls into Lower-Middle Group and features in the group achieving the lowest overall average for PDP portfolios. IC completed all three portfolios but battled to progress on his journey, representing several students in the Lower-Middle Group as well as those from the Bottom Group.	
<b>NS</b> achieved below 50% for the exam and yet obtained an average of 78% for the portfolios, representing over a third of the bottom group who achieved very good portfolio marks. Excellent effort and focus allowed students like NS to achieve well in the PDP despite generally lower academic achievement.	

**Table 4. A brief description of Students included in Study Sample**