

CHAPTER A6

Learning to be a Self-Regulating Professional: The Role of Personal Developing Planning (PDP)

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Norman has a strong connection to the development of PDP. Between 1998-2000, while working at the Quality Assurance Agency, he led the development of the policy and produced the Guidance for the Progress File & Personal Development Planning. After moving to the Learning Teaching and Support Network in 2000 he worked closely with the Centre for Recording Achievement to support the implementation of practice. More recently he has sought to embed PDP within a new framework for promoting lifewide learning (Jackson 2010).

Summary

Personal Development Planning (PDP) is the only approach to learning in UK higher education that is actively encouraged through a policy. The dispositions, thinking, behaviours and habits that PDP is intended to promote are closely aligned to the processes identified in self-regulation. The paper examines these relationships and asserts that if PDP is implemented in ways that learners find engaging, and can be related to real world experiences, it offers the promise of enabling them to develop and practice capabilities that are important to being an effective self-regulating professional.

Origin of PDP Policy

Personal Development Planning (PDP), is the only policy approach to learning in UK higher education that is actively encouraged through a policy. It's an unusual policy in the sense that it is not a Government requirement but an expectation set out by Universities themselves (in the form of a statement agreed by the Universities and Colleges representative bodies).

The idea and practice on which PDP policy is based lies in the recording achievement movement which in this country began in the 1980's and was supported through the Enterprise in Higher Education initiative through which the Centre for Recording Achievement (CRA) was established in the early 1990's. The practice-based movement with the support of people from within the Department for Education and Employment and other national bodies like the Higher Education Quality Council, influenced the National Committee of Inquiry in Higher Education which recommended:

‘...that institutions of higher education, over the medium term, develop a **Progress File**. The file should consist of two elements: a transcript recording student achievement which should follow a common format devised by institutions collectively through their representative bodies; a means by which students can monitor, build and reflect upon their **personal development**’ (NCIHE1997).

The policy was developed through a consultative process facilitated by QAA and supported by CRA. It was approved by the Universities and HE Colleges representative bodies and promoted by the Quality Assurance Agency and Higher Education Academy through its Associate Centre for Recording Achievement.. Jackson and Ward (2004) argued that the Progress File was intended to solve the ‘problem’ of representing (documenting, certifying and communicating by other means) students’ learning in a bureaucratic world that demanded more

comprehensive and detailed information about the capability of people¹. The policy however recognised that learners themselves must take responsibility for developing this information through their own PDP practices.

Because of the UK-wide PDP initiative, we are probably the only education system in the world that has invented and implemented a policy that embodies a complex set of thinking, behaviours and dispositions that when internalised, sits at the heart what it is to be an effective professional. We should recognise and celebrate this fact. It puts our students at a distinct advantage in developing their epistemology for practice. This Chapter considers the way in which PDP can support the development of self-regulatory processes that are essential to performing at a professional level.

What is Personal Development Planning?

'PDP is a structured and supported process undertaken by a learner to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development. It is an inclusive process, open to all learners, in all HE provision settings, and at all levels.'

Effective PDP improves the capacity of individuals to review, plan and take responsibility for their own learning and to understand what and how they learn. PDP helps learners articulate their learning and the achievements and outcomes of HE more explicitly, and supports the concept that learning is a lifelong and lifewide activity.' (QAA 2009: 2).

My interpretation of what is meant by these words is as follows:

- *structured* means designed and intended
- *supported* means that it is valued, encouraged and facilitated by teachers and other professionals who promote and support student learning
- *process* means that, while PDP is based on a simple learning process, a strategy for promoting PDP through students' programmes may involve a collection of processes that are connected in some way rather than a single continuous process
- *personal, educational and career development* conveys the message that this supports development of the whole person and it can and should be relevant to their whole lives. It has relevance to both the lifelong and lifewide (Jackson 2010) dimensions of living and learning.

Underlying this conceptualisation of PDP is that it is a process which can support the building of self-identity, self-awareness and self-efficacy. But the primary objective is to help learners develop their capability so that they are able to:

- learn in a wider variety of ways and a wider range of contexts and be conscious of the way that they are learning;
- recognise, judge and evidence their own learning and the progress they are making;
- draw upon and use their expanded personal knowledge to achieve particular goals;
- review, plan and set new goals; action their learning in ways that are consistent with their planning
- create new opportunities for themselves as a result of their new personal knowledge.

This poses a major challenge for HE teachers many of whom are not sympathetic to notions of learning beyond what is accepted in their discipline and which they have experienced themselves. Teachers tend to hold two different sorts of conceptions about their role as teachers (Lueddeke 2003): those who see their primary role as transmitting concepts of knowledge (information transfer / teaching focus) and those whose approach to teaching

¹ Hidden behind the Progress File policy was a desire by Government for higher education to abandon Honours classification and the only way to do this is to convince employers, students and institutions that a detailed transcript was better than a summative degree classification (although employers need both sorts of information). Since publication of the original policy statement and associated guidelines, the Measuring and Recording Student Achievement Group has developed proposals for a Higher Education Achievement Report (HEAR) for all students (UUK 2009). The proposals incorporate the original data set for the HE transcript from *Guidelines for HE Progress Files*, and the requirements of the Diploma Supplement, and propose the recognition of a broader, verifiable, range of learner achievement by HE providers.

is essentially to help students develop or change conceptions (conceptual change / student focus). In terms of underpinning learning theory the former is based on behaviourist principles while the latter assumes a constructivist approach. Facilitating learning in ways that are consistent with PDP requires teachers to work with the full range of conceptions about teaching and learning (e.g. Biggs 2003, Trigwell 2000, Houghton 2002) but it is fundamentally associated with constructivist conceptions that focus on:

- what the student does (Biggs 2003)
- what the student perceives (Trigwell, 2001)
- how the student manages what the student does, initially within frameworks created by the teacher, but ultimately negotiating or creating his/her own framework (Houghton 2002).

Houghton believes that the latter conception is fundamental to supporting learning through PDP and to the objective of developing real learner autonomy. It is also fundamental to conceptions of self-regulation.

'Students can work very hard, actively and effectively, doing what they are told to do. This is not quite spoon-feeding, the students are doing the work, but they aren't taking responsibility for deciding what to do. They can learn a great deal, but are not be able to learn independently when they leave university and do not have a teacher to tell them what to do. Managing one's own learning is therefore an important ability.... Indeed I would argue that it is the ultimate objective of HE, that graduates should be autonomous individuals capable of advancing their own learning...It involves students in reflective planning of their own learning.'

When viewed from the perspective of teacher perceptions, we can see how challenging the idea of PDP is. For implementation to be successful PDP requires teachers to adopt the role of facilitator of students' learning (constructed by each individual) rather than a transmitter of knowledge developed and synthesised by the teacher. By the same token it is also a significant driver for encouraging teachers to think about this way of learning and teaching.

Another dimension of PDP that is worth highlighting here and one that is also challenging for teachers, is its potential to value and foster the intrinsic motivations for learning. Recognising and valuing an individuals motivations for learning seems to have been abandoned in an education system that is driven by the widespread belief that students only learn if they are assessed, typically in ways determined by the teacher. Self-motivation is what fuels learning throughout life when there are no assessment hurdles to jump through and we cannot claim we are preparing students for life if we do not recognise this.

What types of learning, behaviour and dispositions is PDP intended to promote?

PDP attempts to connect and draw benefit from reflection (reviewing and evaluating) -recording (self-evidencing of learning)- action planning (specific intentions for doing and learning) and helping students to align their actions to what they think they need to do to develop/improve. All these things require students to think and behave in particular ways.

When expressed as a set of actions PDP processes contain a set of interconnected activities namely:

- **thinking about and planning** – how to achieve objectives or general change; *it can also be about stimulating imaginations and thinking creatively about future possibilities and choices*
- **doing / acting on plans** – learning through the experience of doing with greater self-awareness;
- **observing** – we have to be aware of our actions and their effects in order to subsequently use this knowledge to reflect
- **recording** – thoughts, ideas, experiences, feelings to understand better and to evidence the process and results of learning and to reflect on the effects of such;
- **reviewing** – thinking about / reflecting on what has happened, making sense of what happened in the contexts of the bigger picture and growing theory
- **evaluating** – making judgements about self and own work and determining what needs to be done to develop/improve/move on and evaluating self-theory

- **storing and using** – the personal knowledge and sense making derived from PDP to enable the knowledge to be brought to bear in future situations so that thinking and actions are shaped by personal experience.

From this set of linked activities we can frame PDP in terms of an approach to learning that involves 'will' – the will to do something and to connect thinking about and planning (specific goals for learning), doing (aligning actions to learning goals), observing and recording (and evidencing learning and the effects of actions and the actions of others) and reflecting (reviewing and evaluating learning, actions, effects and causes) and sense and meaning making that emerges through this systematic process.

Thinking – PDP frameworks and processes are intended to encourage people to think in certain ways. Firstly, they are intended to encourage people to take stock of situations / contexts, create/generate possibilities and choices for future actions; and evaluate those choices to make decisions about what to do. Secondly they encourage people to be more self-aware about what they are doing when they act on their plans and thirdly they encourage contemplative processes aimed at reviewing and evaluating events and experiences for the purpose of learning.

Planning – the capacity to plan for change and then align subsequent actions to personal plans is an essential part of the process. However, life is very complicated and such plans should be seen as guides to be modified and refined rather than checklists that have to be adhered to. This requires people to be conscious of the effectiveness of their strategies in realising their goals and to plan in a way that enables changes to be made should this be necessary.

Doing – The idea of learning through reflection is meaningless unless it is rooted in the experiences of learning or past experiences of learning. Learning through the experience of doing enhances self-awareness and self-motivation. In the context of PDP the doing is connected to the action planning. To obtain benefit people have to be conscious of what they were doing

Observing – Learning through experience involves us in being an observer of ourselves, how we interact with others and they with us, and more generally the effects of what we do on the world around us. We have to behave like a natural or social scientist observing and then making sense of the world. But what we see (hear and sense) can be conditioned or prejudiced by the lenses we use to observe the world so we have to be mindful of the way in which our perceptions can be distorted.

Recording – The extent to which recording is a feature of PDP will vary according to the context. We naturally learn through reflection without recording anything but the discipline of recording helps us understand what we have learnt and provides us with evidence and a personal record of our own development. Unfortunately, when we formalise PDP we also require people to record in order to make thinking explicit so that others can give feedback or make evaluative judgements. There is a tension in PDP between promoting the habit and skill of codifying one's own learning to create new explicit personal knowledge for own use, and the need for people to make explicit their personal knowledge in order to be assessed. In any PDP process care must be taken to define and explain the rationale for recording information and how this is integrated into learning processes and facilitative conversations.

Reflecting (reviewing and evaluating) - The idea of metacognition or self-awareness. (how did I? why did I? how will I?) is central to the idea of learning in this way. PDP can therefore be thought of as a way of building knowledge about self and through this a stronger sense of self-identity. The idea of evaluating requires people to make judgements about their own learning and performances. It requires people to develop the knowledge and skills in creating and using reference points and feedback mechanisms in order to enable themselves to make evaluations that are realistic and helpful.

The idea of learning through reflection is central to self-awareness. Reflection is a necessary part of the process of trying to assimilate and understand new knowledge and to relate it to what is already known modifying existing

knowledge in the process and creating new meaningful learning. Reflective learning will already be incidental in the

academic activities of most students but deliberate strategies for its use will make students more conscious of it so that it can become an integral part of their approach to learning. PDP tends to emphasise reflection on action and performance after the event or experience. In reality reflective deliberation occurs in the planning stage of the process (reflecting on similar situations in the past in order to plan for the future).

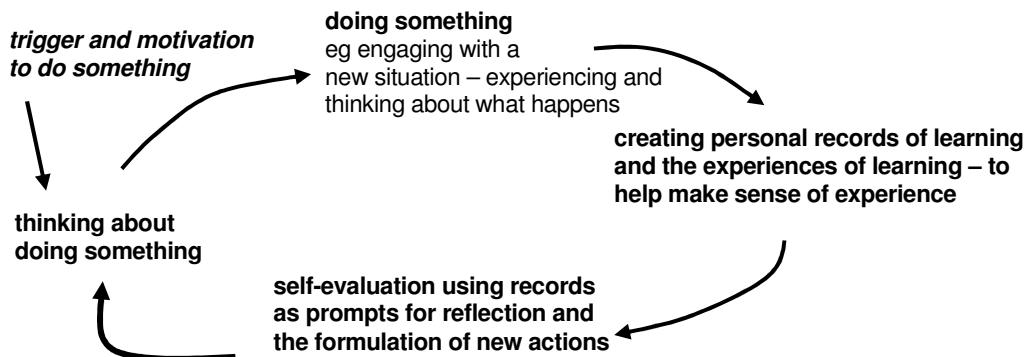
Lucas (2009:1) makes the distinction between reflection as a contemplative process and critical reflection which is an altogether more purposeful, challenging and analytical process.

'reflection is associated with cognitive thinking skills. However, we are concerned with critical reflection which involves the questioning of taken-for granted assumptions and the "re-viewing" of a situation. We argue that "reflection" is a demanding process involving a motivation that leads to a willingness, or a capacity, to develop qualities of openness, acknowledge uncertainty and, ultimately, to take a view and act. This process involves the identification of taken-for-granted beliefs and a readiness to question them across a range of domains. The development of a reflective capacity thus involves issues of identity or view of self. Consequently change is unlikely to be straightforward.'

Storing in memory, retrieving and using personal knowledge - The strength of PDP is that it is a method of creating knowledge about self. Ultimately the real benefit is to the individuals who create this knowledge and who are able to draw upon it and use in ways that are meaningful and useful to themselves. Such knowledge might be used in an instrumental way eg being able to relate personal knowledge and skills to the needs of an employer. Or it may be used in more profound ways to modify conceptions, attitudes, behaviours that lead to personal change.

In summary, PDP is a process involving wilful thinking and acting for a purpose – to encourage us to learn about ourselves and to act up on this learning by fostering and supporting the habit of personal change. The processes, actions and outcomes described above can be connected in the manner shown in Figure 1.

Figure 1 Schematic representation of the wilfulness, thinking, actions and behaviours that underlie PDP.



PDP as a way of improving understandings about knowledge, knowing, learning and performing

PDP is a means to encourage learners to recognise that knowledge and knowing is not something that is simply gleaned from books and teacher or self-directed study as so much of formal education encourages us to believe. How learners understand the way they develop the knowledge necessary for being and performing in the world is of fundamental importance as we rethink our strategies for preparing them for their future lives. Questions of learner epistemology: such as *what is knowledge? how is it acquired? what do they know? how do they know what they know? how do they use their knowledge to develop more knowledge?* are of higher order significance than questions about pedagogy (the method and practice of teaching) which should follow.

If we want to support the development of learners as thinkers who can integrate their analytical and creative thinking then we need to understand the epistemology that connects learning and practice (using the idea that

practice is about people working on purposeful activity to achieve their goals regardless of whether they are studying or in a job).

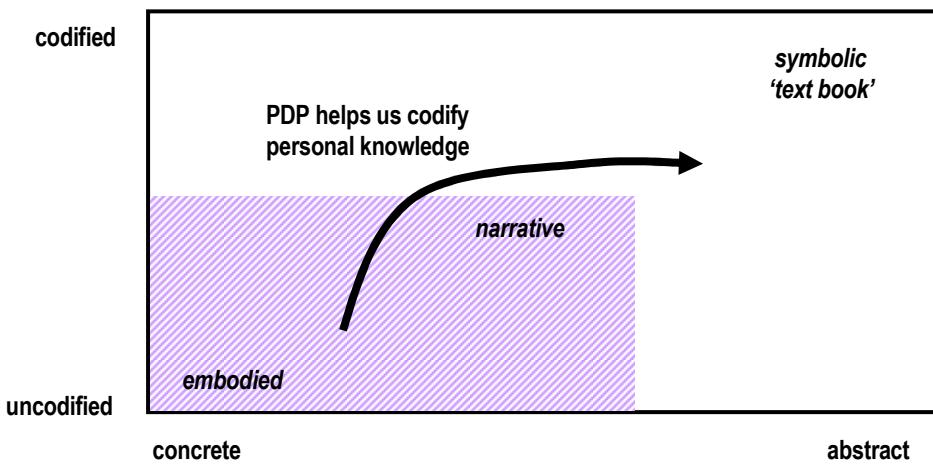
The main problem with traditional higher education as a vehicle for preparing learners for the complexities of the world ahead of them is that it seems to take such a narrow view of what learning, knowledge and knowing is. Higher education is pre-occupied with codified knowledge and with its utilisation by learners in abstract hypothetical problem solving. This is not to say that handling complex information in this way is not useful – far from it: it is an essential process for enabling students to learn how to think about and work with complexity. If we adopt the idea of *work* as our overarching context for integrative learning and we take Michael Eraut's rich conception of personal knowledge (Eraut 2000, 2004, 2007, 2009) we can gain a better appreciation of the scope for the sources of knowledge that learners draw upon in a life-wide learning context.

'I argue (Eraut 2009:2 and 2010) that personal knowledge incorporates all of the following:

- Codified knowledge in the form(s) in which the person uses it
- Know-how in the form of *skills and practices*
- Personal understandings of people and situations
- Accumulated memories of cases and episodic events (Eraut, 2000, 2004)
- Other aspects of personal expertise, practical wisdom and tacit knowledge
- Self-knowledge, attitudes, values and emotions.

The evidence of personal knowledge comes mainly from observations of performance, and this implies a *holistic* rather than *fragmented* approach; because, unless one stops to deliberate, the knowledge one uses is already available in an *integrated form* and ready for action.'

Figure 2 Conceptual framework for viewing knowledge developed by Max Boisott (1998)



Max Boisott (1998) provides another useful conceptual tool for viewing knowledge (Figure 2). Using the 2x2 matrix of codified /abstract and uncodified/concrete knowledge he shows schematically the nature of the knowledge that is embodied in everyday thinking and practices – our personalised working knowledge that we use to deal with situations, and the more abstract/ symbolic knowledge that has been made explicit through the writing down or recording in some other way. Narrative or story telling provides a communication medium, often rich in metaphor, that links these two domains. The personal knowledges, described by Eraut (above) mainly populates the shaded area and this knowledge and how we use it is what PDP helps us appreciate. The PDP process helps us codify this knowledge and enable others to access and interrogate it.

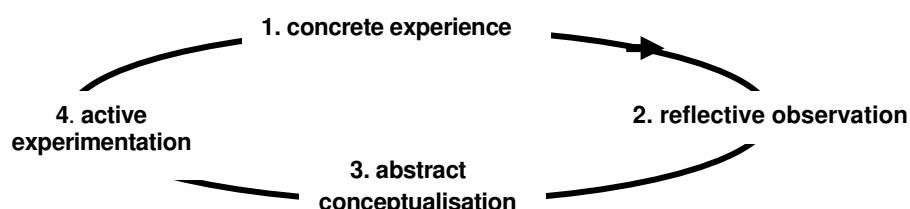
PDP attempts to engage students in thinking about the experience of learning as well as the results of learning. It also encourages them to engage in actions to improve their learning. There are a number of theories that might be used to explain partly or fully the processes, actions and results that flow from the strategic process of

– thinking and planning; doing; recording experiences, learning and performance; reviewing evaluating experience, learning and performance and using this personal knowledge in future actions.

All educationalists are familiar with the seminal work of Schon (1983) and Kolb (1984), and the Kolb learning cycle is the best known theory to explain how we learn through the experience of doing. Many discussions of PDP appeal to the Kolb model (the best known version of which is shown in Figure 3).

The central propositions in the theory are that we learn from concrete experiences (1) by reflecting on those experiences from different perspectives (2) and reform our perceptions and learn through this process (3) and then apply this learning to new situations (4). Active experimentation becomes the starting point for a new concrete experience so the process can be modelled as a continuous helical spiral rather than a single cycle. But the Kolb conceptualisation of a learning pathway does not always map on to real learning pathways and it doesn't map very well onto the idealised representation of a PDP learning pathway (Figure 1).

Figure 3 Kolb (1984) experiential learning cycle



Marsick and Watkins (1997) developed a theoretical framework and a model for understanding informal and incidental learning in the context of problem solving. When learning takes place from experience, under non-routine conditions people frame the situation they encounter (diagnosis) by using their judgement based on previous experiences and knowledge (problem framing). In order to develop a strategy to deal with the situation, they view the situation through the lens of the context, assessing the constraints and limitations of the context against the feasibility of each solution (contextualisation). Once a strategy is developed (invention) people may need to learn how to produce the strategy (learning to produce invention). The implementation of the strategy (production) leads to intended and unintended consequences. People then embed into their consciousness assumptions about whether or not the strategy worked. Because so much of the process is tacit or unexamined the potential for error is great. To avoid this and improve the effectiveness of the problem solving process Marsick and Watkins(1997) identified the need for critical reflection throughout the process. People who learn best are those that ask challenging questions about what they are doing: a process that can be assisted by colleagues and mentors. Cseh et al (2000) adapted and reconceptualised the model for informal and incidental learning developed by Marsick and Watkins (1997) to emphasise the centrality of context in the framing of experiences and work situations.

These theories offer a number of advantages over the Kolb view of experiential learning in the context of PDP learning processes. Firstly, they recognise that PDP learning is triggered by something (eg the need to satisfy a requirement to complete a portfolio) and a problem (how do I do it and get good marks for it/ or do enough to pass!). Students' learning is also undertaken within contexts (e.g. disciplines, skills modules, personal tutor systems, personal circumstances) and these have a strong influence on behaviours through which learning occurs. Another advantage of the model is that it explicitly recognises that people have to invent things – that working with problems including those generated by the need to engage with PDP – is an inherently creative process involving imagination and experimentation. A third advantage is that the model recognises the need for critical self-reflection throughout the process and the need for external challenge and facilitation e.g. via teachers and tutors.

Self-regulation – a more integrated and relevant concept of learning and action

While the theories outlined above provide some insights into the patterns of learning which PDP is intended to promote, they do not provide a sufficiently comprehensive explanation for what happens when students' learn

through the strategic process that good PDP frameworks provide. The self-regulated learning model (Schunk and Zimmerman 1998, Zimmerman 2000, Zimmerman 2003) goes a long way to addressing this concern.

The model of self-regulated learning provides a scientific explanation of the processes that underlie PDP and helps us understand how the actions, behaviours, attitudes and emotions of individuals engaging in PDP learning processes might be connected. There appears to be a good correlation between the key actions and behaviours in the PDP model of learning and those of self-regulated learning (Figure 4). But the model of self-regulated learning provides much greater detail of the thinking processes, motivations, values and belief systems that underlie PDP. It provides a more systematic and holistic view of this type of strategic learning and problem working process than has previously been demonstrated through theoretical modelling. As such it provides us with a useful scientific analytical tool with which to evaluate the different types of PDP processes we create. The following observations can be made.

PDP processes tend to focus on the instrumental features of action planning, record keeping and reflection on action and performance. The other important features of self-regulated learning are often implicit. There is often little consideration given to the richness of the forethought process and the underlying motivations, values and beliefs that underpin the sense of self-efficacy that drives the whole process. PDP offers a real opportunity to value the intrinsic motivations of learners yet we see PDP being driven by the extrinsic motivation of teacher assessment which takes no account of the personal motivations that drive individuals. This runs counter to the ideal of preparing students for a world in which their personal motivations will be far more important in securing their own success in life than any external motivations.

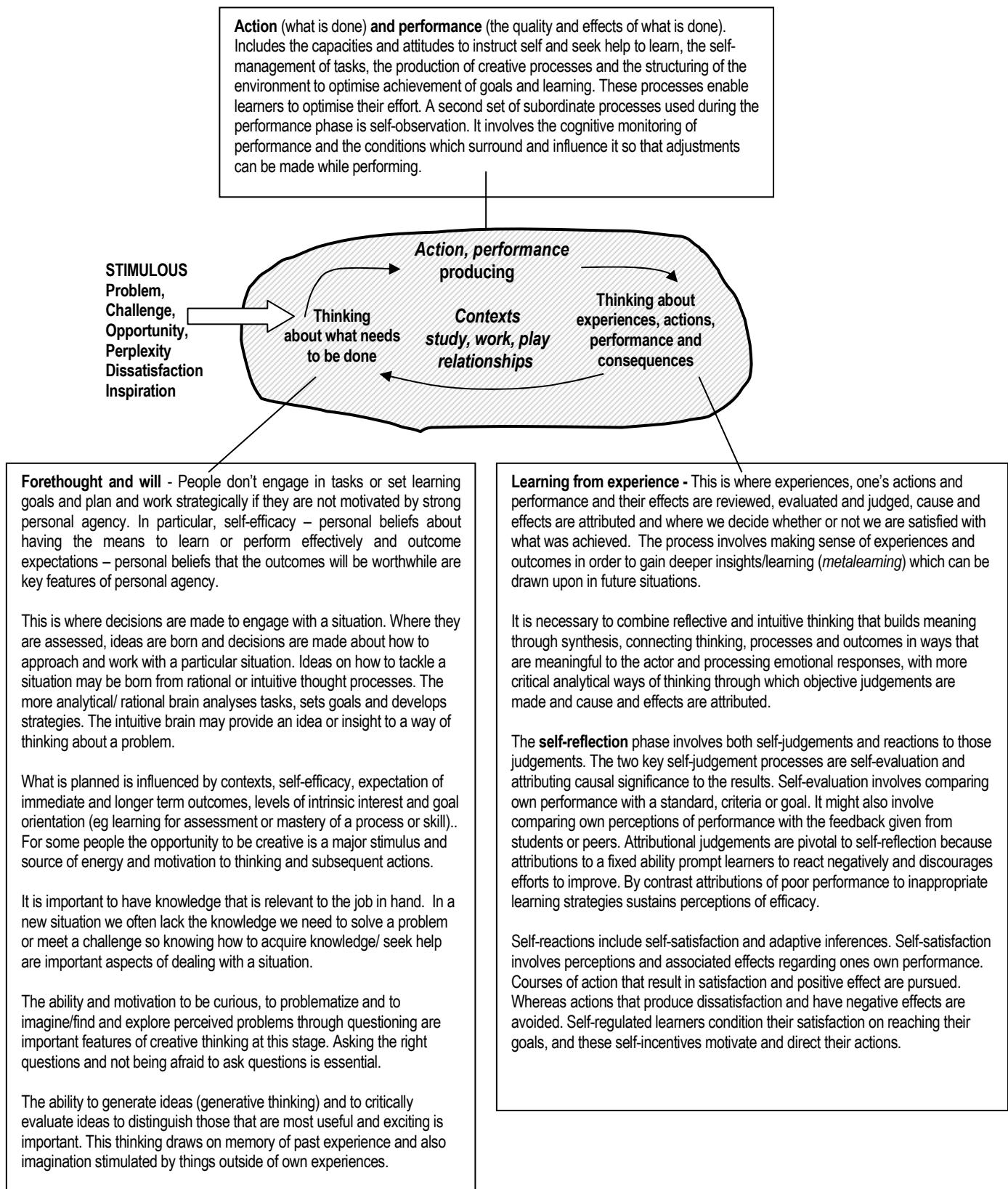
Forethought is also the home of imagination (idea generation) and creative thinking (how own or other people's ideas might be used). If we are to nurture imagination and creativity in students' learning this should be explicit in both PDP and self-regulation models of learning. Imagination is a source of personal energy that motivates us to do something in a particular way. The ability to imagine goals and impacts and then imagine interesting ways of achieving these things is important to sustaining the motivation to learn and do and fuels self-regulated behaviour. We can of course encourage students' to develop creative habits of thinking (thinking divergently as well as convergently) through the use of creative thinking techniques. Thus extending the potential of forethought to be useful to subsequent actions and performance.

The doing (acting and performing) part of the self-regulation model distinguishes many sub-processes that are implicit in under-theorised PDP practices – notions of self-instruction, help-seeking and using the environment to create resources for learning. These are all crucial in problem-working throughout life and they are rarely explicitly recognised in PDP models for learning. 'Doing' is the home of creativity in action (making use of own or other people's ideas). The process of engaging with emergent problems in real time, the structuring of the environment to create resources for learning, the adaptation and transfer of ideas to new contexts, the juggling of numerous tasks and the nurturing of relationships are all manifestations of creativity in action. These things all rely on self-efficacy and personal motivation to sustain them.

Comparing own performance and attributing causal significance to results – requires evaluation against criteria, standards or previous performance to what is good/poor performance attributed to? The extent to which we provide students with the knowledge and skills to do this and the opportunities for practising self-evaluation are quite variable in PDP processes.

Emotions like *anger* (resentment, annoyance, hostility and even outrage), *sadness* (dejection/ depression, flatness, energyless, loneliness), *fear* (anxiety, misgiving, apprehension) and *enjoyment* (contentment, satisfaction, pride and even pleasure) are all part and parcel of everyday living and learning. But higher education, with its focus on the

Figure 4 Capability modelled as a process involving forethought-decision making-doing – and reflecting on what happened using the model of self-regulation (Schunk and Zimmerman 1998, Zimmerman 2000:26). The original model has been modified by adding the idea of action (what is done) to performance (the quality of action).



The maps of self-regulation shown in Figures 3 and 4 can be used to evaluate PDP implementation models to identify the aspects of learning, behaviour and attitudes that a particular strategy is seeking to develop and enable.

The maps can be used as a tool to:

- aid professional conversations about teaching and learning
- design/review tool when planning a curriculum or learning process
- aid the design and review of PDP processes
- and help students evaluate their own thinking processes, motivations, behaviours, attitudes and actions.

Figure 5 Map showing how PDP sub-processes relate to the the self-regulation model of learning (Zimmerman 2000 and Zimmerman 2003).

PDP actions/behaviours	Actions/behaviours in self-regulated learning	What people do and think
Thinking and planning <i>Includes imagination and creativity</i>	FORETHOUGHT Task analysis Goal setting Task strategies	Self-regulated learners must analyse tasks in order to set appropriate goals and plan strategically how they will be attained. <input type="checkbox"/> Specification of intended actions and outcomes. Learners need to be able to define and work towards general and specific goals. <input type="checkbox"/> Methods of learning that are matched to specific tasks. <input type="checkbox"/> Capacities to imagine and visualise different ways of achieving goals are important.
Thinking and planning <i>Consideration of these dimensions of self-regulation are often weakly articulated in many PDP models</i>	Self-motivational beliefs Self-efficacy Outcome expectations Intrinsic interest in work Goal orientation	Self regulating learners must be self-motivating and be able to sustain their motivation . The use of mental imagery is a good way of creating and sustaining a motivational framework. <input type="checkbox"/> Beliefs about having the means to learn or perform effectively. eg <i>master a difficult concept, acquire a body of knowledge in the time available</i> <input type="checkbox"/> Beliefs about the ultimate ends of performance eg <i>a positive/negative view about the likely impacts of teaching</i> <input type="checkbox"/> Genuine interest in the work <input type="checkbox"/> Able to focus on goals and not be distracted
Doing (performing)	PERFORMANCE Self-control Self-instruction Use of imagery Time management Task strategies Help-seeking Environmental structuring	<input type="checkbox"/> Able to teach self. <input type="checkbox"/> Able to use mental imagery to visualise and adjust performance <input type="checkbox"/> Able to manage own time in complex multitasking situations <input type="checkbox"/> Able to implement strategies <input type="checkbox"/> Seek help when necessary <input type="checkbox"/> Able to utilise the resources in the environment and structure the environment to acquire resources
Recording experiences, learning and performance in action	Self-observation Cognitive monitoring Self-recording	<input type="checkbox"/> Thinking about own performance, the conditions that surround it and the effects that it produces. <input type="checkbox"/> Recording observations and evaluations of own actions and performance
Reviewing evaluating experience, learning and performance after action	SELF-REFLECTION Self-Judgement Self-evaluation Attribution Self-theorising	<input type="checkbox"/> Comparing own performance and attributing causal significance to results – requires evaluation against criteria, standards or previous performance <input type="checkbox"/> To what is good/poor performance attributed to? Attribution of errors to a fixed ability cause learners to react negatively, while attribution of errors to ineffective learning strategies can be a source of motivation to change strategies. <input type="checkbox"/> Making sense of experiences and learning through self theory.
Using this personal knowledge in future actions.	Self-Reaction Self-satisfaction Adaptive-Defensive inferences	<input type="checkbox"/> Courses of action that result in satisfaction and positive effect are pursued. Self-regulated learners condition their satisfaction on reaching their goals. <input type="checkbox"/> Capacity/willingness to modify self-regulatory approaches during subsequent efforts to learn or perform. Adaptive inferences direct a person to new and potentially better forms of behaviour. Defensive inferences inhibit personal development.

development of rational/analytical mind, tends to ignore the emotional dimensions of learning. PDP provides an opportunity to put emotions back into learning within contexts that are meaningful to the learner and to acknowledge that learning is an emotional business. Indeed, some of our most transformative experiences come from situations that are highly challenging and emotionally charged (Jackson and Campbell 2010).

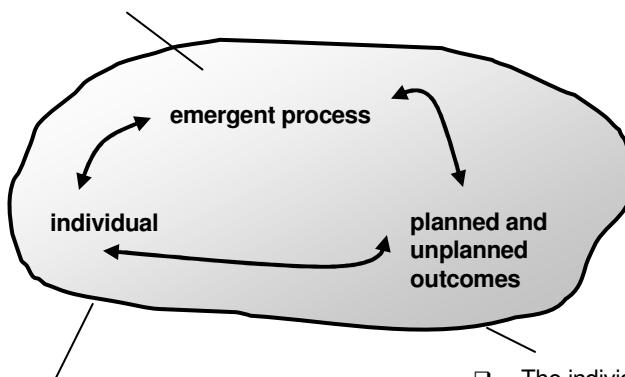
How we feel about something has a major effect on whether we want to pursue something or abandon it. The interplay of emotions, beliefs, actions and contexts are complex and unpredictable but we need to be conscious of them as they will impact on our decision making processes. The self-regulatory model acknowledges these things in a way that PDP models often do not. Goleman's (1996) book on emotional intelligence depicts a world in which the capacity to cope with life is strongly dependent on attitudes of mind that have little to do with the thinking rational part of the brain and more to do with emotional, non-rational and intuitive brain. The roots of self-efficacy, our senses of personal and professional satisfaction with what we have done and our willingness to adapt in the future, lie in these attitudes of mind. If we are to improve our ability to promote personal knowledge of these things through

Autodidactic theory – a powerful ally to self-regulation

The arguments for connecting PDP to the self-regulation model of learning are cogent but we need to have a vision of other worlds of learning that lie outside formal education settings in the world of work that lies at the edge of chaos (Stacey, 2000). A world that only makes sense if you view it through the lens of complexity theory. The model of self-regulated learning is still very much applicable to this world but this conception of learning is enhanced if it connected to the concept of the autodidactic learner (Tremblay, 2000). Tremblay's model of the autodidactic (self-instructed) learner (shown in Figure 5) incorporates the self-regulating model of Zimmerman. It offers us an insight into a learning objective for PDP that lies beyond higher education.

Figure 5 Representation of the autodidactic model of learning (Tremblay 2000).

- The process develops without prior condition
- Knowledge emerges through action and the individual is open to recognising and exploiting its value
- The individual works with the process heuristically



- The individual creates her own rules and vocabulary for learning
- The individual is strongly self-regulating
- The individual and the environment are reciprocal determinants
- The individual gains knowledge through a complex, diversified and expanding web of resources

An autodidactic process is heuristic, iterative and contextual (individual meta-learning). Situations are not predetermined they may be conditions of coincidence (a stochastic condition). The learning project does not develop in a linear way and the actions necessary for the realization of the task are not presented in a sequential and predictable manner. The autodidactic process appears to operate differently from problem-management or problem-solving processes.

Knowledge emerges through action (process). Action/reflection, practice/theory, learning/teaching can emerge in the same place and time. It is a continuous experiment in which action and reflection share the same space. Theory (self-theory) develops from action and the knowledge that emerges through action. This is an appropriate conception of the way that people approach learning as a sustained experiment in which action and reflection on action and the shaping of future actions share the same space.

Networking (general methodology). Adults who teach themselves invest a lot of time and energy in identifying the resources they need to learn. Networking is a central methodological tool for this type of learning project. Typically they establish a network in the immediate environment and grow the network connecting with increasing levels of expertise and/or broadening enquiry through different expertise advancing their knowledge in the process. The network reflects the knowledge needs of the autodidactic learner and what is available to the learner. Resources that are not originally educational in their nature become educational through the processes constructed by the learner. This is a core working methodology in learning through work situations.

Organizing circumstances (context). Autodidactic learners are dependent on the elements for learning that are available in their immediate environment and learning projects are shaped through taking this into account. Autodidactic learners often do not plan to use particular resources but see and exploit opportunities as they arise. Autodidactic learners seize every opportunity that chance offers to learn.

It can be argued that the ultimate objective of the approach to learning that PDP is trying to foster is to encourage people to acquire the habits of learning that are consistent with the conception of the autodidactic (self-directed) learner. This conception of people engaging in learning is quite different from conceptions of learners and learning held by most HE teachers yet, if they pause to reflect, it is the world that they themselves inhabit and the concept of behaviour and learning that most closely approximates their own professional life.

Why is PDP relevant to learning to be professional?

If we are to claim that higher education is preparing learners for the complex social and professional worlds that they will inhabit when they complete their higher education, then we must also pay attention to the epistemology of practice that will be used in the real world outside the classroom. Raelin (2007) identifies three building blocks of an epistemology of professional practice namely:

Extensive use of tacit knowledge – the tacit processes that practitioners use as they work through the problems and challenges of daily practice. Such knowledge is deeply rooted in action and involvement in a specific context in a specific time. But while people may be knowledgeable about what they do and can do it, they may not be able to explain how they know what to do.

Critical reflection – the thinking capacity to make sense of their own practice and experiences and mindful habit of doing it. Or the ability to think about how their actions resulted in a particular outcome. This ability results in the creation of a personal ‘real time’ learning environment through which beliefs, assumptions and mental models as well as actions, can be tested and evaluated.

Mastery – people develop their expertise not only by repeated practice in a single domain but by acquiring skills in multiple contexts. Mastery is developed through an appropriate apprenticeship in which novice practitioners are exposed to embodied practice, apply and develop their own practice, are encouraged and given feedback on their performance and gradually take on more and more responsibility. Developing mastery is coupled to the development of tacit knowledge and the ability to evaluate and learn from own experiences through critical reflection.

Michael Eraut's (2007 and 2009) visualisation of an epistemology of professional practice (based on empirical evidence of how professionals actually work), focuses on how they deal with situations. He notes that the basic epistemology of practice involves the professional actions of:

- *Assessing situations* (sometimes briefly, sometimes involving a long process of *investigation and enquiry*) and continuing to monitor the situation;
- *Deciding what, if any, action to take*, both immediately and over a longer period (either on one's own or as a leader or member of a team);
- *Pursuing an agreed course of action*, performing professional actions - modifying, consulting, evaluating and reassessing as and when necessary;
- *Metacognitive monitoring of oneself*, people needing attention and the general progress of the case, problem, project or situation; and sometimes also learning through reflection on the experience.

Being a professional means that you fulfil a professional role in a field that is known as a profession. It involves the mastery of a complex body of knowledge that can only be mastered through diligent study and experience-based apprenticeship.

Being professional applies to many roles both within and outwith the professions. It involves many qualities and attributes and they are learnt both formally (e.g. through higher education, study for professional qualifications or on the job training), and informally by observing other people who perform their role in a professional or unprofessional way. They also have to be learnt through the experience of being or trying to be professional. Normally, we achieve this through involving ourselves in real world (outside classroom) work situations which require of us to adopt certain normative behaviour around such things as dress codes, demeanour and appropriate conversation when interacting with colleagues, managers, customers or clients). They also include such things as attitudes to work like turning up on time, completing jobs that are started, showing commitment to providing high standards of service and to continually improving own performance. PDP practices can be designed to enable student learners to become more aware of what being professional means by embedding them in real world situations, particularly but not exclusively part-time work, internships and work placements.

The more complex and non-routine the role we perform is, the more we have to commit to continual professional learning (CPL) and it is in these situations where PDP and notions of self-regulation become particularly relevant and important (see for example Trevitt 2010 who describes PDP practices relating to CPL for University teachers at the University of Oxford). By embedding PDP practices that encourage learners to think about and be more aware of the way in which they are approaching and dealing with the professional situations they encounter or create for themselves, we encourage them to develop the habits and mindfulness that are part and parcel of being a self-regulating professional.

A companion Chapter (Jackson in prep) considers some of the frameworks used to support and encourage learners to become more aware of themselves and their learning through real world experiences.

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