Accounting students' perceptions of using Visual Metaphor as part of Personal Development
Planning: an exploratory case study

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Abstract

This UK based exploratory case study explores the perceptions of accounting students using visual metaphor to support personal development planning (PDP). The requirement within PDP for students to reflect on their skills and knowledge and to evaluate, visualise and communicate their development and achievement needs is demanding. Students find the use of visual tools offers them the time, flexibility and functionality to explore, imagine, structure, interrelate and communicate the products of their reflections as part of the PDP process. The use of imagery in accountancy is growing with professional accounting bodies taking an increasing interest in the use of visualisation. The application of visual metaphor provides undergraduate accounting students with a valuable early experience of using iconography for technical information presentation. The findings suggest that students perceive the technique of visual metaphor as a stimulating exploration of their personal goals that enhanced their engagement in the reflective PDP process.

Accounting students perceptions of using Visual Metaphor as part of Personal Development Planning: An exploratory case study

Introduction

Personal Development Planning (PDP) has been introduced into many undergraduate programmes as an organised and supported set of processes for leading students to reflect upon their own learning, performance, achievements and shortcomings; going on to create an action plan for personal, educational and career development (Quality Assurance Agency for Higher Education [QAA], 2009). PDP shifts the responsibility to students as it is based upon a reflection about their personal life choices, goals, and planning personal development, particularly of employability skills. A major institutional expectation is that PDP will impact positively on students' personal understanding of their capabilities, motivation, educational engagement and achievement (Bullock & Jamieson, 1998). Given that the professional accounting bodies have introduced PDP in various forms into their qualification and career paths, it seems sensible to provide accounting students with an opportunity to start to develop the necessary skills through an early experience of PDP.

PDP operates within the constructivist paradigm, where the responsibility of learning (about oneself) resides with students (von Glasersfeld, 1989) and the learning task is to assemble meaningful interpretive frameworks for incorporating their history, present circumstances and their development needs, bringing meaning and purpose to their future professional careers (Amundson, 2006; Maree, Ebersöhn & Molepo, 2006). PDP is grounded in reflective narrative (telling of one's story), action (exploring aspects of one's self, such as culture, values and beliefs), construction (constructing one's own identity within a social context), and interpretation (integrating personal identity and meaning to inform career development) (Grier-Reed, Skaar, & Conkel-Ziebell, 2009).

Reflection, however, is a complicated and intimate process requiring students to deploy cognitive techniques to support personal analysis, working through feelings and ideas, and recording and communicating personal development needs and opportunities for long-term career development (Gauntlet, 2005; Maas & Leauby, 2005; Quality Assurance Agency for Higher Education [QAA] 2009; Ward & Watts, 2009). The literature reports worrying issues about variations in the learning characteristics of accounting students, their motivation for, and difficulties with, the reflection process, coupled with superficial and rushed engagement in the PDP process (Brennan & Shah, 2003; Fry et al, 2002; James, 2013).

Visual tools have been proposed in the literature as complementary to the constructivist paradigm, providing students with the time and flexibility to represent the cognitive and affective aspects of their thinking outside of linguistic constraints (Gauntlett, 2005; Ward & Shortt, 2013). Indeed, "the visual is an entire further domain of communication" (Davison and Warren, 2009, p1) located in an increasingly digitalised and visual environment (see Davison (2015) for a comprehensive review of the literature). In the accounting field, there is increasing use of imagery in accounting and management reports (Davison, 2015) and the

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professional bodies are taking an increasing interest in the use of visualisation in the corporate reporting (FRC, 2015).

Contribution

This exploratory study relates to first year undergraduate accounting students and their perceptions of the use of visual metaphor as a tool to support the reflective process within the Personal Development Planning part of their Academic and Professional Skills course/module. The research:

(1) contributes specifically to the extant literature regarding the utility of visual metaphor in addressing some of the problems associated with PDP. The visualisation process encourages students to think beyond a basic written personal development plan and enables deeper exploration and critical assessment of future personal goals. The study suggests that visual methods can encourage students to integrate their educational and life experiences with their career aspirations and has served as a functional methodology for encouraging them to engage in PDP. This skill will be important in students' professional careers where CPD is a contractual requirement.

(2) more generally reveals the breadth and depth of imagination and creativity students possess when creating their images. Visual metaphor has offered students shortcuts to a wealth of expressive meaning which would be difficult to communicate in text form or would require long written explanations. In an accounting environment where imagery is becoming more prominent, students' experience of using iconography for technical information presentation may be useful and relevant in their professional careers.

(3) findings may be of interest to colleagues involved in the personal development of students, to those interested in introducing visual methods into their teaching and to colleagues responsible for programme design.

This paper is divided into the following sections. The first section provides a literature review of the reflective process, constructivism, visual tools and visual metaphor. The second section describes the exploratory study and methodology. The third section presents the findings of students' perceptions with a summary. The fourth section presents the conclusions and describes the scope for further study.

Literature Review

Over the last two decades, the literature has reported the need to change the accounting curriculum to equip students with appropriate non-subject specific skills and competencies to prepare them for, and enhance their chances of, employment. In response there has been a developing body of literature concerning the embedding of broader employability skills into the accounting education curriculum (Nelson, 1995; Dearing Report, 1997; Albrecht & Sack, 2000; Gammie, Gammie & Cargill, 2002; Rebele, 2002; Maas and Leauby, 2005; Hill & Milner, 2008; Jackson, 2010; Somers et al, 2014). The most common employability skills cited by employers include business and customer awareness, problem-solving, creativity and innovation, leadership and numeracy alongside the ability to analyse, think critically and

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communicate effectively as individuals and as part of a team (Kavanagh & Drennan, 2008; United Kingdom Commission for Employment and Skills [UKCES], 2009; Confederation of British Industries [CBI], 2009; Jackling & De Lange, 2009; Jackson, 2010). It is common practice for the requirement of undergraduate employability skills development to be articulated through a dedicated programme of study which culminates with a personal development plan.

While the PDP process is primarily aimed at improving the employability skills of learners, it has utility for educational institutions, professional bodies, and employers. For educational institutions, PDP provides a way of observing learners' knowledge and skills (Smith & Tillema, 2003), improve the engagement of students and be used to relate the curriculum to professional practice, enhance extracurricular learning and develop students as more autonomous learners (Stoner & Milner, 2010). For the professional accounting bodies, PDP offers opportunities to maintain schemes of Continuous Professional Development (CPD) as a compulsory part of their long-term membership programmes (Maas & Leauby, 2005; American Institute of Certified Public Accountants [AICPA] (2017); Association of Chartered Certified Accountants [ACCA], 2017; Chartered Institute of Management Accountants [CIMA], 2017; Chartered Institute of Public Finance and Accounting [CIPFA], 2017; CPA Australia, 2017; Institute of Chartered Accountants in England and Wales [ICAEW], 2017). For employers, PDP can provide the basis for dialogue during the recruitment process and later as part of annual staff development and appraisal activities (Beausaert, Segers, van der Rijt & Gijselaers, 2011).

The reflection process requires students to meet a wide-ranging set of cognitive and affective objectives which involve learning through experience, observation, reflection, theorising, action planning and recording of ideas. PDP also displays self-directed learning designed to engage and motivate learners to work proactively towards identified goals and outcomes through self-reflection, critical thinking and learning from mistakes (Beausaert *et al.,* 2011; Grohnert, Beausaert & Segers, 2014; Zimmerman, 2000). Introspective reflection requires considerable cognitive expertise because, from the perspective of constructivism (Piaget, 1950; Vygotsky, 1978), it is a process that requires the ability to make sense of personal experience and learning and to integrate new experience with what is already known and believed. Constructivism hypothesises that individuals construct their knowledge through continuous active cognitive and affective processes which are adaptable to changing circumstances, building new ideas or concepts based on current and previous knowledge (Karlin & Viani, 2001). Chandler (2002) proposes that we are driven to make meaning through the creation and interpretation of signs, which include images and words. Learning occurs when new knowledge and experience is brought to an individual's attention and is assessed in the context of what is already known and attached to existing knowledge where the individual gives it social and cultural meaning (Piaget, 1950). The theory of cognitive constructivism is characterised by processes of learning about oneself (self-reflection), building internal representations of knowledge and experience, and developing expressive ways of external visualisation and explanation (Ausubel, Novak & Hanesian, 1978; Novak & Gowin, 1984; Mayer, 1992, 2011; Anderson, 1993; Steffe & Gale, 1995; Fosnot & Perry, 1996; Barner, 2011; Dhindsa, Makarimi-Kasim & Anderson, 2011).

Within the constructivist paradigm, students are viewed as taking the first step in successfully planning and navigating through their career when they construct meaningful interpretive frameworks for integrating their history, present circumstances and future development (Amundson; 2006, Maree *et al.*; 2006). However, students, with varying levels of skill in the techniques of reflection and communication skills, are unlikely to find it to be a straightforward task. It has been reported that some students find PDP to be a negative experience where:

- students find it difficult to evaluate and contextualise their skills (Fry *et al.*, 2002; Thompson, Hallwood, Clements & Rivron, 2009);

- dislike the reflection experience (Moon, 2005; Varnava & James, 2005);

- perceive PDP as unrelated to their academic studies and unimportant (Cox, 2009);

- when PDP has not been adequately integrated into the syllabus (Stevenson, 2006; Beekes, 2008);

- employability skills are not embedded in the accounting programme (Stoner & Milner, 2010);

- students find developing employability skills to be as challenging as developing academic subject knowledge and understanding (Hind, 2006);

- the general nature of accounting students' personality and their learning styles may be an underlying mitigating factor in the way they approach the reflective process (Booth & Winzar, 1993; Kovar, Ott & Fisher, 2003).

From a constructivist perspective, the reflective PDP process requires students to deploy cognitive techniques to support an intimate personal analysis of themselves, working through feelings and ideas, recording and communicating personal development needs, the requirements of career progression and the opportunities for long-term career development (Gauntlet, 2005; Maas & Leauby, 2005; Quality Assurance Agency for Higher Education [QAA] 2009; Ward & Watts, 2009). The use of visual tools for PDP provides a mechanism for recording the products of the reflection process, and challenge some of the weaknesses above.

Visual tools are defined as "nonlinguistic symbol systems used by learners . . . for graphically linking mental and emotional associations to create and communicate rich patterns of thinking . . . transforming static information into active knowledge, thus offering a complementary representational system to more traditional literacies" (Hyerle, 2009, p. xix). The use of visual tools has its pedagogic foundations with the idea that individuals form and organise knowledge by themselves through a range of cognitive processes (Ausubel *et al.*, 1978), coupled to the objects of student engagement, willingness to participate, development of values, philosophy of life; personal attitudes and perceptions of the affective domain (Krathwohl, Bloom & Masia; 1964).

The literature ascribes benefits to the use of visual tools as part of the reflective process. The inference is that most students cannot immediately produce perceptive and accurate written descriptions of the complex, honest thinking and emotional responses required about

themselves. Use of visual tools provides a slower alternative cognitive approach allowing students to experiment with various representations of their thinking. Such imagery used to represent their thinking, knowledge, beliefs, attitudes and perceptions of self may be quite abstract. Such an approach recognises the complexity of the internal cognitive landscape, and there is a neurological argument that during reflection, individuals integrate visual and linguistic information. Encouraging individuals to express their ideas and feelings through visual tools is postulated as enriching the synergy of the reflective process. In parallel, using visual tools for reflection recognises the level of creativity required and the need to project a representation of the self-directed 'voice' about objective and subjective views of self.

A visual approach provides students with a chance to represent an authentic account of the interrelationship of their knowledge, perceptions and emotions using iconic imagery which would otherwise be difficult to represent in text form alone. From a constructivist perspective, the use of visual tools has a practical outcome for students about learning by constructing something (Papert & Harel 1991). The visual product should contain representative cognitive objects and relationships which in turn should initiate a chain reaction of new ideas and further relationships (Barton & James, 2017). As a result, the use of visual tools offers students potential shortcuts to express a wealth of emotional meaning, which is primarily understood by its author, but may be elusive to an observer, and would alternatively require lengthy written explanations. Such visual products are, therefore, the basis for a synergy of image and text processing, where students can translate and present their ideas later in linguistic form for communication and assessment purposes (Barner, 2011; Davison, 2015; Davison & Warren, 2009; Denicolo, 1999; Gauntlett, 2005; Gauntlett & Holzwarth, 2006; Pain, 2012, Ward & Shortt, 2013).

As a corollary, there is increasing use of imagery in the accountancy professions to support explanations of technical numerical data, specialist ideas and debatable judgements in modern forms of publication (Davison & Warren, 2009). It is suggested, use of visual tools provides undergraduate accounting students with early exposure and appreciation of emerging commercial information presentational techniques and the fidelity of iconography in the process and this sense use of visual tools for PDP is as a transferable skill (Davison, 2015).

Maas and Leauby (2005) found that use of visual tools offered inspiration to business students to develop broader thinking skills as they were encouraged to think more deeply and creatively about problems and communicate complex ideas. In an accounting context, Simon (2007) reported that students liked the visual representation and holistic view afforded by concepts maps, that they found the visual tool relatively easy to use and that it provided them with a better understanding of complex issues. More recently, Maas & Leauby (2014) report that concept maps are a useful tool for student learning and assessment in a variety of different accounting settings. In the field of teacher education, Johnson (2001), and Pope and Denicolo (2001) showed that the use of visual metaphors appeared to assist teachers with reflective practice. Clarke, Flaherty and Yankey, (2006) found that marketing students, favoured visual summaries because they allowed understanding of the relationship between ideas. For a more detailed analysis of the field of visual research in management, see Bell and Davison (2012) and Bell, Warren and Schroeder (2014). The research appears to support the

proposition that visual tools enable superior information processing and sharing leading to improvements in enhanced motivation, attention, and understanding and recall (Eppler, 2006; Simon, 2007). It also suggests that visual methods help individuals integrate emotional and symbolic aspects of their life experiences and career aspirations and can serve as a practical methodology for encouraging adults to engage in PDP (Barner, 2011).

The visual metaphor is a specific tool with an open graphical structure, constructed with almost no inhibiting rules and uses the imagery of natural or human-made artefacts, recognisable activities, stories or icons to produce an interactive interface (Eppler, 2006). It is argued that use of visual metaphor allow individuals to go beyond literal meaning and communicate abstract, eloquent, meaningful, and contextual associations of complex ideas bound to their identities, experiences, personal knowledge, and more volatile emotions and feelings. Lakoff and Johnson (1980) argue that metaphor is pervasive in human life, not just in language, but in thought and action, and suggest that our conceptual system is not only allegorical, but that metaphor is part of the natural way of constructivist thinking. Visual metaphor allows the expression of personal knowledge that conveys additional (possibly private) understanding of that content which would be difficult to express in text form (Clarke *et al.*, 2006; El Refaie, 2003; Eppler, 2006). Denicolo (2005) describes a range of metaphorical techniques to access the perceived world of the person, including various forms of written narrative, and the metaphorical visual technique 'career snakes'. This technique allows participants to depict a personal experience that influenced the direction that their career took; where each turn of the 'snake' is briefly annotated, and the drawing is used as a basis for discussion with the researcher. Similarly, Johnson (2001) used visual metaphors to assist teachers with their reflective practice and found that the teachers, given a choice, opted to use visual metaphor as a form of expressing their reflection, rather than using written text. Davey and Lumsden (2010) also report the positive impact on student learning of using a visual approach (posters) and the use of visual metaphor is one of many visual tools that have the potential for superior information sharing leading and enhanced motivation, attention, understanding and recall (Eppler, 2006; Goodnough & Woods, 2002).

It appears that the technique of visual metaphor is little used in accounting education. One reason for this is that students may have extreme difficulty in identifying and interpreting visual metaphor (Bullough & Stokes, 1994) and not all students enjoy using visual techniques, something which might not suit every student despite cited benefits (Clarke *et al.*, 2006; Goodnough & Woods, 2002). Moreover, students are likely to exhibit unique variations in their preferred individual learning styles (Marriott, 2002; Stewart & Felicietti, 1992). There are several learning style classifications (Fleming & Mills, 1992; Honey & Mumford, 1992; Kolb, 1984) and it is argued that the learning styles have a moderating influence on the success of teaching methods (Marriott, 2002). Goodnough and Woods (2002) see the benefit of offering a diverse range of tools to match the learning needs of different learners. Indeed, the way in which students learn may be a contributory factor to their level of engagement with their studies (Bullough & Stokes, 1994). Despite this, learning style theories have been questioned citing the validity of the questionnaires and the problems associated with labelling of students (Duff, 1997, 2001; Duff & Duffy, 2002; Loo, 1999). However, recognising students' learning styles and adapting approaches to suit a variety of student preferences may generate

a positive learning outcome especially when the instruction technique is made compatible with students' learning styles (Clarke *et al.*, 2006; Kagan & Kagan, 1998).

In summary, PDP requires complex cognitive effort and students require techniques for expressing, visualising, articulating, recording and communicating their reflective contributions about their learning needs, aspirations, beliefs and feelings, as well as the requirements of career progression and the opportunities for long-term career development (Gauntlett, 2005; Maas & Leauby, 2005; QAA, 2009; Ward & Watts, 2009). The use of visual metaphor may provide students with an enabling cognitive methodology to support and communicate the output of the reflection process which underpins PDP.

Case Study

This exploratory study was undertaken in a Business School at a British university with students undertaking an undergraduate programme in Accounting and Finance leading to a BA (Hons) (3 years of study) or MAcc (Masters) Degree (4 years of study). The accounting and finance programme is made up of study modules, valued in Credit Accumulation and Transfer Scheme (CATS) points, where students need to obtain 360 CATS Points to graduate. As part of the programme, students attend a compulsory year-long Academic and Professional Skills Module (20 CATS points) which prepares students to undertake the second year Research and Employability skills Module.   In summary, this Year 1 skills module covers:

- academic and business writing techniques,

- the analysis and solution of business problems,

- generic professional competencies (team working, leadership, time management, setting priorities, working to deadlines, planning, reflection, self-management, self-presentation, time-management, career development, personal development planning and ethical principles,

- enabling employability skills numeracy, literacy, communication skills.

As part of this work, students are introduced to concepts of learning styles with an exercise where they reflect on their results from the Visual, Aural, Read/Write and Kinesthetic (VARK) questionnaire (Fleming & Mills, 1992). Students are required to maintain a portfolio of their work. The summative assessment of the module portfolio includes the production of the personal development plan; is pivotal and accounts for 10% of the overall module mark.

The purpose of including a visual metaphor exercise is to encourage students to express their current thoughts about their future careers and life choices in meaningful imagery to illustrate their prospective developmental journey and planning for their future. Examples of visual metaphors are presented and discussed with students, but they are free to use any technique, format or image of their choice to create an illustrative product that assists them to think about their personal developmental needs. The visual metaphor is an abstract working product that only has real meaning to its originating author. Therefore, although it was attached to the written personal development plan and used as a basis for discussion with

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the tutor, it was not assessed. There are practical reasons for this decision. A visual metaphor is a personal, perhaps private, tool which enables and supports the personal reflective process. While the visual metaphor will have meaning to the inexperienced student experimenting with its use, the visual product is more likely to represent a trial and error approach and be more a work in progress (El Refaie, 2003; Eppler, 2006; Gauntlett & Holzworth, 2006; Kress & van Leeuwen, 2006).

Method

A paper-based questionnaire was constructed specifically to explore the perceptions of students using a visual metaphor for PDP. The questionnaire included items covering:

- background variables and previous experience of using visual analysis techniques (see Tables 1 and 2);

- personal learning style perceptions using results from a separate self-administered online VARK questionnaire (Fleming & Mills; 1992) (see Table 3);

- 30 statements relating to students relating the use of PDP using a Lickert Scale (see Table 4), randomly presented, and covering the areas of:

    o the overall perception of the use of visual metaphor for PDP;

    o method and preparation of their visual metaphor;

    o learning styles and learning;

    o reflections on using VM;

    o engagement in PDP and its future use.

- 6 free text and open-ended questions (open-ended questions have been used successfully to gather students' perceptions of visual tools (Goodnough & Woods, 2002).

Ethical approval to undertake the research was granted by the Faculty's Ethics Committee. The questionnaire was administered at the end of the module following the submission of the students' visual metaphors and PDP assignment. The questionnaire was distributed to and collected from, students by a member of staff unrelated to the module and students were informed that their participation in the research was voluntary, their PDP products, responses and comments would be anonymous, and that they could withdraw from the study at any time. Students were encouraged to be honest in their answers. Consent was received from all 71 students.

Results

This case study explores accounting students' perceptions about the use of visual metaphor in PDP by 71 first year undergraduate accounting students. The characteristics of the student group and their experience of using visual tools are presented in Tables 1 and 2.

Table 1: Student Background Characteristics

Gender	N	%	Age	N	%	Nationality	N	%
Male	44	62	18 – 20	60	85	British	66	93
Female	27	38	21 – 23	6	8	EU	0	0
			28 - 34	5	7	International	5	7
Totals	71	100		71	100		71	100

Table 2: Students' Experience of Using Visual Tools

Type of Visual Tool	%
Mind mapping	85%
Story boards	49%
Personal Development Plans	41%
Concept maps	23%
Visual metaphor	22%
Conceptual diagrams	14%
Network analysis/PERT	14%

Table 3 summarises the VARK predicted learning styles (Fleming & Mills, 1992) of students. The VARK exercise was completed separately and students were asked to enter their predicted learning styles on the questionnaire.

Table 3: Summary of Predicted Learning Styles (VARK) of Students

	N	%
Read & Write (RW) [or MM & RW]	27	**38**
MM	16	**23**
Aural/Auditory (AA) [or MM & AA]	10	14
Visual (V) [or Multi-modal (MM) & V]	10	**14**
Kinesthetic (K) [or MM & K]	8	11
Total	**71**	**100**

Table 4 presents the students' perceptions of using visual metaphor for PDP according to the five themes. The table is split into two sections in order to display (1) the perceptions of students that reflect the majority of the participants and (2) the perceptions of students that reflect areas where there is uncertainty amongst the participants.

Table 4: Summary of Results: Overall Perception of the use of visual metaphor for PDP
(A = Strongly agree/Agree; N = Neutral; D = Disagree/ Strongly disagree)

Section 1: Majority perceptions of using visual metaphor for PDP
(Frequency modes ≥ 50%) (N=71)

Theme	Statement (abbreviated)	A	N	D
Overall perception	6. I am comfortable using VM for PDP	72%	13%	15%
	24. I enjoyed using VM for PDP	64%	11%	25%
	29. VM is not a boring experience	63%	24%	13%
Method and preparation	23. More guidance on VM required	66%	17%	17%
	28. More guidance on PDP required	65%	13%	22%
	4. Using VM makes PDP easier	60%	19%	21%
Learning styles and learning	2. Normally use visual approach when thinking about problems	35%	13%	52%
	18. Could have used other ways to match my learning style	34%	54%	12%
Reflection	3. VM enabled creativity for PDP	69%	14%	17%
	25. VM enabled thinking about current and future skills/knowledge	76%	13%	11%
	30. VM allowed me to focus on PDP	64%	13%	23%
	17. VM allowed the identification of more PDP factors	59%	23%	18%
	8. VM allowed reflection on future professional life	58%	22%	30%
Engagement in PDP and future use	10. More effort into studies having visualised future career goals	68%	12%	20%
	27. VM has motivated me to put more effort into my studies	59%	21%	20%
	26. VM made me take PDP seriously	51%	27%	22%

Table 4: Summary of Results (continued)

**Section 2: Uncertain perceptions about using visual metaphor for PDP
(Frequency modes ≤ 49%) (N=71)**

Theme	Statement (abbreviated)	A	N	D
Overall Perception	11. VM use for PDP surprising	49%	27%	24%
	15. VM is a novelty	38%	44%	18%
Method and Preparation	1. Found it easy to create a VM	49%	21%	30%
	21. VM is an unnecessary extra effort in PDP	24%	28%	48%
	9. Producing both VM and written PDP complicated	28%	24%	48%
Learning Styles and Learning	12. VM generally matches my learning style	42%	15%	43%
	19. VM develops more creative problem solving skills	45%	31%	24%
Reflection	5. Continued to think about VM	41%	15%	44%
Engagement in PDP and Future Use	13. VM triggered interest in PDP	48%	20%	32%
	22. VM of my aspirations now important to me	45%	30%	25%
	16. VM is a new skill to use in other studies	45%	35%	20%
	7. Continue to use VM in PDP	32%	44%	24%
	20. I will use VM in other academic studies	28%	45%	27%
	14. Will continue to use VM in the future	37%	31%	32%

Analysis and Discussion

The results of the questionnaire (see Table 4), together with the free text open-ended questions, are grouped and analysed under the following headings:

(1) Overall Perception of the use of visual metaphor for PDP
(2) Method and preparation of visual metaphor
(3) Learning styles and learning
(4) Reflection
(5) Engagement in PDP and future use

(1) Students' Overall Perception of the use of visual metaphor for PDP

72% of students reported being comfortable using visual imagery for PDP and almost two-thirds of students found it enjoyable and not a boring experience. For almost half of the students, however, the use of visual metaphor as part of PDP was a surprise and indeed novel for 38% of students. Despite the high percentage of students engaging with the technique a quarter of the students did not enjoy the experience, which supports the findings of Bullough and Stokes (1994), Goodnough and Woods (2002) and Clarke *et al.* (2006). These opposing views are reflected in a range of open text comments such as:

> *"I really enjoyed the opportunity to create something different. This was a pleasant surprise as I did not expect to do so considering that I was studying a degree in accounting and finance."*

> *"I didn't really see the point. I couldn't see how it related to my chosen course, and I can't see how it will help me in the future."*

(2) Method and preparation of visual metaphor

Only 41% of students had previously taken part in PDP and just 22% of students had experience of using visual metaphor, although other evidence of engagement with alternative visual technical was highlighted (see Table 2).   The use of visual metaphor was therefore a new experience for the majority of students and so the request by two thirds of the students for more guidance on the use of visual metaphor and PDP is unsurprising.   The following quotes illustrate this:

> *"Funnily enough because there is so much freedom it is very hard to begin and to know what is okay to do or what is pointless. The lack of structure/instruction on how to present it – I disliked it being down to me to choose how to do it – I don't really think in that way."*

> *"Not having guidance on how to present my work was challenging – especially as I had not done this before."*

Although only 49% of students found it easy to create their visual metaphor, 60% of students regarded the use of visual metaphor as making the development of their PDP easier.   As the literature suggests (Fox, 1989; James, 2013; Meyerson, 1991; Mignot, 2000; Stein, 1994), the visual metaphor has given voice to personal experiences which otherwise would be difficult to express. The following quotes further support this:

> *"[Visual metaphor] has helped develop the way I think and has motivated me to think about my future and to work harder to get higher grades. I have thought more deeply about where I want to be and the steps I need to take to get there."*

> *"I have been more creative in the way I have thought about and presented my 5 year plan. The use of visual tools has given me the freedom and flexibility to express myself in a different way – it's been great."*

A significant majority of students (over 87%) used IT to create their visual metaphor from images sourced from the internet. However, similar to the findings of Bullough and Stokes (1994) and the ideas of Gauntlett & Holzwarth (2006), the requirement to use imagery to express personal views is challenging but useful, as the following comment highlights:

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> *"Finding the metaphors was hard but the visuals are useful when presenting ideas or concepts that may be difficult to clearly express verbally".*

Despite the perceived difficulties of producing a visual metaphor, it is interesting to note that less than 30% of students did not agree that the extra effort of producing the visual metaphor along with the written PDP was unnecessary. Indeed, the comments from students support Barner (2011) and James (2013) and suggest that the use of visual metaphor has helped them engage in PDP by integrating their life experiences and career aspirations pictorially.

> *"Thinking about by future goals gives me time to reflect on what I want in life and helps me develop the skills I think I need. Visual metaphor has helped me visualise my aspirations for the next 5 years in the form of pictures and gain a better understanding of what I plan on achieving."*

> *"I was able to focus on my 5 year plan without worrying about content. This led to more ideas being written down and better instructions on how to get there. Finally, critically reflecting on my skills helped me to plan the content of the PDP as I had a lot more information to use than if I didn't have a visual metaphor."*

(3) Learning styles and learning

From a learning perspective, the questionnaire results reveal that 35% of students stated that they normally use a visual approach when thinking about problems and 42% stated that visual metaphors generally match their learning style. However, there is some inconsistency in these results as the results from the VARK exercise (see Table 3) suggest that the learning style mode of the undergraduate accounting students centred more on predicted read/write and multi-modal learning styles tendencies (61%) with only 14% of students having visual learning style tendencies. This discrepancy has not been investigated in this paper but the validity of learning style questionnaires and the problems of labelling students has been highlighted in the literature (Duff, 1997 & 2001; Loo, 1999; Duff & Duffy, 2002). Also, whilst students have a preferred learning style, their approach to tasks can change according to the parameters set (Marriott, 2002) and this may be the case here.

Table 5 compares the students' predicted learning styles and their choice of visual metaphor product and highlights the predominance (89%) across all learning styles for the use of photographs, cartoons, maps, diagrams and drawings.

Table 5: Comparison of students' predicted learning style to form of visual metaphor created

Predicted Learning Styles (LS) (VARK)	Visual Metaphor Product Type *						
	Big Picture	Icon Cluster	Mixed	Other	Formal	Written	Totals
Visual (V) [or Multi-modal (MM) & V]	2	1	3	1	3	1	11
Aural/Auditory (AA) [or MM & AA]	3	1	5	2			11
Read & Write (RW) [or MM & RW]	4	9	10	2	1		26
Kinesthetic (K) [or MM & K]		2	5	1			8
Predicted MM	2	5	3	2	1	2	15
Totals	**11**	**18**	**26**	**8**	**5**	**3**	**71**
		89%			11%		

* VM Product types

Big Picture:	Singular VM for e.g. route map.
Icon Cluster:	VM made up of many smaller meaningful icons.
Mixed:	VM presented as a mix of a 'big picture' and includes many icons, diagrams and pictures.
Other:	Any other form of VM that has meaning to the student e.g. collection of photographs.
Formal:	VM follows style of formal technique e.g. concept map.
Written:	VM chart is mainly made of text boxes.

The findings support El Refaie (2003), Denicolo (2005), Clarke *et al.*, (2006), Eppler (2006), Gauntlett (2005) and James (2013) and suggest that visual metaphor has offered students shortcuts to a wealth of expressive meaning which would be difficult to communicate in text form or would require long written explanations. As the following comments suggest:

> "It [visual metaphor] forced me to think more deeply on the subject, ultimately leading to a better flow of ideas of where I want to be in 5 years' time. I believe I have a better understanding of my goals and aspirations and how I intend to achieve them."

> "In my visual metaphor I got pictures that have a relationship to me. After I got a picture of a road to create my journey throughout the academic year, what I want to achieve, etc. I put the pictures in an order to show my journey of what I will achieve to reach my goal."

Examples of work produced are presented in Figures 1.

Figure 1: Examples of Students' Visual Metaphor

The imagination in student work is evident from the examples in Figure 1 and supports the students' perceptions (69%) and views that visual metaphor has enabled creativity:

> *"I have been more creative and have a more detailed plan to help me write my PDP. To project my thoughts and hopes about the future onto paper has helped me solidify the scale of the task and made my dream that much more real."*

(4) Reflection

From the perspective of reflection, over two thirds of the students perceived the use of visual metaphor as introducing creativity into PDP which enabled them to think about their current and future skills/knowledge. For over 58% of students, the use of VM allowed them to focus on PDP and identify more factors to consider in PDP and enabled them to reflect on their future professional life, which for some was a daunting task as highlighted by the following comment:

> *"'It is very daunting thinking about the future although I think it [visual metaphor] helped me have more ideas to put in the writing. It allowed me to group together separate areas of my personality in order to assess my strengths and weaknesses and use this to suggest areas of improvement."*

However, 30% of students disagreed that visual metaphor enabled reflection about their future professional life. This seems to be linked more with their preferred learning style as highlighted by the following comments:

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> *"I'm not very creative so wasted a lot of time on the layout rather than the purpose; I'm not 100% if I found it useful either. It was a time-consuming process, and I like using words not pictures to express myself."*

> *"I am not a visual learner so if I was to do this task again this would not be my preferred method. It did not suit my preferred learning style (read/write) so I didn't particularly find it came in that much use when planning my written assessment."*

Regardless of this differing perceptions, the effort students expended into the visual metaphor exercise must not be underestimated. They all engaged with the exercise in varied and imaginative ways, which resulted in a quality of reflection which was evidenced in their written development plans. Encouraging, 41% of students expressed that they would continue to think about their visual metaphor when setting shorter and longer terms goals.

> *"I will reflect back on it [visual metaphor] once I have achieved one of the step goals, then add a further step as life is on-going and I always want more. It might be a yearly exercise to see if my aspirations have changed and what I can development skills wise."*

(5) Engagement in PDP and future use

When asked about their engagement and future use of visual metaphor less than half of the students (48%) agreed that visual metaphor has increased their interest in PDP although 51% of students indicate that they will take PDP more seriously having used the VM approach. Although at least 60% of students appear ambivalent towards the utility of visual metaphor, 68% of students agree they will put more effort into their studies having visualised their future career goals. For 45% of students, visualising their future aspirations is now important to them and the use of VM has introduced a new skill that they will use in other students. Students wrote:

> *"It [PDP] will help motivate me in my studies to help push me towards my future goals. I now understand how important my education is to develop my future self."*

> *"I think once students know and have thought about the future they will be more motivated to work harder throughout their time at university. It's a clear image that students can keep looking at in order to motivate them."*

Summary of Findings

PDP is a structured reflection about personal experience, learning, performance and achievement. Its creation requires the visualisation, articulation, recording and communicating of development and achievement needs (Ward & Watts, 2009; Quality Assurance Agency for Higher Education [QAA], 2009) which students find difficult to express (Bullock & Jamieson, 1998; Fry *et al.*, 2002; Thompson *et al.*, 2009). The results of this exploratory study suggest that while the use of visual metaphors can assist students in the complex PDP process, some students are likely to have difficulties with such an open ended and creative approach and need to be prepared carefully.

Similar to the finding of Maas and Leauby (2005), the use of visual tools has enabled students to think more deeply and creatively about their future career plans and to communicate their multifaceted ideas in ways that they understand. Visual metaphor has allowed the students to combine a reflection of their personal experience with the theorising, planning and recording of new ideas (Bullock & Jamieson, 1998). Whilst not all of the students see the value of visual metaphor, or indeed PDP itself, there is evidence to suggest that the technique has been effective and productive. The quality of the visual images produced by students and how these were translated into individual personal development plans has been impressive. Surprisingly, it appears that the use of visual metaphor has not been limited by students' preferred learning styles and has provided students with a tool to potentially support and communicate deep reflective and critical thinking that supports the PDP process.

It appears that students have been able to construct meaningful interpretive frameworks for analysing their current skills and identifying their future development needs, as described by Amundson (2006) and Maree*, et al.,* (2006) and the non-prescriptive approach to completing the assessment has provided students with the flexibility to develop their own techniques for constructing their plans. Whilst some students expressed their reservations with a visual metaphor approach to PDP, students appear to have been engaged by visual metaphor as a flexible activity that required creativity, communication, understanding, analysis and self-directed research. This goes some way to answering the call for accounting education to support more meaningful learning (Maas & Leauby, 2005).

Overall, and in support of Barner (2011), this study suggests that visual methods has encouraged many students to integrate their educational and life experiences with their career aspirations and has served as a functional methodology for encouraging them to engage in PDP.

Conclusions and Scope for Further Study

PDP was explained to students as a continuous personal learning process that required them to identify life choices and goals and to formulate actions that will raise their personal understanding, capabilities, educational engagement and personal achievement. As seen in the literature, students find the reflection and evaluation required for PDP difficult and they dislike the experience. In an attempt to address these issues, a visualisation approach to PDP

was designed to encourage students to articulate what they know about themselves and their future, add new knowledge and understanding and provide a basis for communication for later discussion (a constructivist approach). The use of visualisation was aimed at encouraging students to explore and to think critically, creatively and proactively about their personal goals and plans.

This paper has explored the perceptions of utilising visual metaphor to assist in the complex reflection orientation of PDP. The inclusion of the visual metaphor technique provided students with an opportunity to become more engaged and more creative in an activity that had previously been reported as challenging and irrelevant. The module design team considered that it was important for students to imagine their career paths and future professional lives through visual images as part of articulating, recording and communicating their development, achievement and career progression needs.

The study demonstrates that a visualisation process, has encouraged students to think beyond a basic written personal development plan and enabled deeper exploration and critical assessment of their future personal goals. It provides an insight into an alternative approach to constructing personal development plans and contributes to the extant literature in this under researched area (Eppler, 2006). The use of visual metaphor offers students an alternative mechanism for PDP related reflection and although the views of students were not unanimously positive, the balance of opinion supports the effective pedagogic merits of an approach that assists students to complete the PDP task (as reported by Kagan & Kagan (1998); Goodnough & Woods (2002) and Clarke, *et al.*, (2006).

However, this exploratory study relates to only one cohort of students at one institution and so is limited in scope. The authors plan to extend the level of tuition required for visual techniques and PDP and further research will be carried out to develop the student's perceptions questionnaire and repeat the survey to make the results more generalisable. Additionally, focus groups or interviews could be undertaken to obtain a deeper understanding of students' views on this novel, but apparently effective, approach to personal development planning. For example, it will be interesting to investigate why students like/dislike the visual technique, how and why they chose their images and in what ways the technique has influenced students' engagement with PDP and their interest in their future careers.

Notwithstanding the limitations of this work, the findings suggest that students do perceive using visual metaphor as a stimulating exploration of their personal goals and engagement in the reflective PDP process. While some students expressed their reservations, students appear to have been engaged by visual metaphor as a flexible activity that required creativity, communication, understanding, analysis and self-directed research. It is hoped that the findings of this paper will be of relevance to academics involved in the personal development of students, those interested in the application of creative visual methods to engage students and to those responsible for developing and teaching the accounting curriculum generally.

Disclosure statement

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No potential conflict of interest was reported by the authors.

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