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A PHENOMENOGRAPHIC ANALYSIS OF STUDENT REFLECTIONS IN ONLINE LEARNING DIARIES

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Abstract

There are many studies regarding the benefit of incorporating learning diaries into learning experiences in higher education, though very little research documenting what students record when those diaries are unstructured.

There are several arguments and counter-arguments for providing students with structure in their completion of learning diaries. Structure is said to limit spontaneity, while unstructured learning diaries are considered to be logs or diaries rather than reflective journals.

This study presents evidence that unstructured, private learning diaries can assist students to become more self-aware – and aware of others – while learning together online. This research provides useful pointers for managers and designers of online learning experiences regarding the role that online learning diaries can play in facilitating reflection.

Keywords: online learning diaries, phenomenography, reflection, structure

INTRODUCTION

This article reports on a phenomenographic study regarding students’ use of learning diaries within a short online course. As part of the structured online learning environment, students are required to keep a private learning diary viewed only by their tutor. Though the online learning environment of the course is structured, there is no prescribed structure for the use of the online learning diaries, nor any guidance regarding the exact nature of the learning diary within the context of management learning (as examined by, e.g., Gray 2007). Gray (2007) refers to a number of tools and practices used within the context of management learning to increase self-understanding and knowledge. ‘Management learning can be enhanced... by proactive critical reflexivity – the surfacing and critiquing of tacit and taken-for-granted assumptions and beliefs’ (Gray 2007:496). One such tool that often used to
encourage reflectivity is the reflective journal as proposed by Gray (2007), or in the context of this research, a learning diary.

Gray (2007:496-497) makes a distinction between reflection as ‘examining the justification for one’s beliefs’, critical reflection as ‘making an assessment of the validity of one’s assumptions, examining both sources and consequences’ and critical self-reflection which he describes as ‘reassessing the way one has posed problems and one’s orientation to perceiving, believing and acting’. Learning diaries are often used uncritically in management education for a range of purposes, as a purely functional means to report what has been learned, as well as to encourage learners to look beneath the surface and question their own (and others’) assumptions and practices (see Boud & Walker 1998).

The purpose of this study is to explore what students reflect upon in their online learning journals when there is no clear guidance provided. There is a general assumption that learning diaries (even unstructured and unguided) can contribute to students’ awareness of their own assumptions and questioning of their own management practices. In considering this, the authors identified these questions: What do students record in their learning diaries? Do postings resemble ‘personal anecdotes, stories, or descriptions of work-related problems’? (Gray 2007:508). Is there evidence of any change to prior assumptions and knowledge? Is there evidence that the act of posting comments resembles critical reflection (as defined by Gray 2007)?

The aim, then, was to collect evidence from a number of students’ postings to their unstructured learning diaries and to identify any emerging themes.

After reviewing relevant literature, we provide an overview of the context of this research and share methodological considerations. The themes identified in the analysis are further explored, and compared before giving our conclusion, which includes implications for the use of online learning diaries.

A REVIEW OF LITERATURE

The use of learning diaries within formal study as a strategy to deepen learning and stimulate critical thinking has increased in recent years. While this has become more
standard within health and social sciences courses, their use in accounting, business and management sciences is relatively new, though increasing, for example, in accounting studies courses (Bisman, 2007) and in management education (Cunliffe, 2002; Gray 2007; Mintzberg, 2004 and Reynolds, 1998, 1999).

Much of the literature on the use of learning diaries refers to reflection as explored by authors such as Brookfield (1995), Dewey (1933), Kolb (1984), Mezirow (1990), and Schön (1983, 1987). This generally investigates different elements of the use of learning diaries, such as the impact on students’ postings when entries are assessed (Boud, 2001); organising reflective practice (Vince & Reynolds, 2008); different models of reflection (Kreber, 2004); reflection and critical reflection in management learning (Reynolds, 1998); the challenge of context in promoting reflection in professional courses (Boud & Walker, 1998); supporting the development of critical reflection in management learning (Gray, 2007); and learning diaries as a strategy to deepen learning (e.g., Biggs, 1999; Boud, 2001). Furthermore, learning diaries are found in discourses on online learning (Browne, 2003) and on the student as critical, autonomous and self-directed learner (e.g., Bisman, 2007; Brookfield, 1995; Cunliffe, 2002).

Moon examines the various purposes of learning diaries (1999:39–48) and explores, inter alia, how they allow learners to record experience, facilitate learning and develop critical thinking or the development of a questioning attitude. This relates to the role of learning diaries in encouraging meta-cognition and improving problem solving skills and reflective practice. Moon also refers to their use in improving writing and in giving ‘voice’ to students, thus encouraging self-expression (1999:94). Moon’s suggestion for developing critical thinking and reflective practice concurs with the ‘ripples’ model suggested by Race (2005) in which students are encouraged to ‘make sense’ of their learning.

In a seminal article, Boud and Walker (1998:193–196) warn against the uncritical use of learning diaries in education. Within the scope of that article, the following issues require a mention. The first occurs when students are required to ‘reflect on demand. Elements of models of reflection are turned into checklists which students work through in mechanical fashion without regard to their own uncertainties, questions or meanings’. There can also be a problem when reflection involves learners becoming ‘self-referential, inward looking and
uncritical’. Boud and Walker (1998:193) highlight a tension between providing too much guidance (resulting in recipe following) and no structure, resulting in a lack of focus. Boud and Walker (1998:194) also warn that reflective activities cannot be restricted to ‘the teacher’s comfort zone’. Once students start reflecting, they can begin to cover ground for which both student and teacher may be unprepared. Another problem can arise when emotions are downplayed and reflection is ‘treated as if it were an intellectual exercise. ... However, reflection is not solely a cognitive process: emotions are central to all learning’ (Boud & Walker 1998:194).

Gray (2007) refers to learning diaries as one of a number of tools being used in management learning to increase self and organisational knowledge and understanding. He warns that learning diaries ‘may be largely descriptive not analytical and cause discomfort in cultures not used to personal disclosure’. On the other hand, they may aid ‘reflective and critical thinking and developing self-awareness (and social awareness), particularly if contents are shared and collectively critiqued’ (Gray 2007:502). Important for this article is the distinction Gray (2007:508) makes between reflective journals, logs and diaries. He defines a log as containing ‘a simple recording of events, a sort of aide-memoire’ while a diary can contain ‘stories of events, hopes, fears, memories, thoughts and ideas’. In contrast to logs and diaries, the reflective journal, according to Gray (2007:508) goes ‘beyond this, and contains deliberate thoughts and analysis related to managerial practice. As such it could contain a description and analysis of critical incidents from the workplace’.

This distinction between the different levels of reflection (e.g., log, diary and reflective journal) is supported by others, such as Varner and Peck (2003) and Edwards (1998). For the sake of this article, we use the distinction made by Gray (2007) in our final analysis of student postings.

THE CONTEXT, PROGRAMME AND PARTICIPANTS

The focus of this study is the learning diary as a compulsory part of the Online Management Challenge (OMC), an online version of a residential school contained within a Professional Certificate in Management award at the Open University. The 18-day OMC offers an
alternative for students who cannot attend a shorter residential school, or who prefer to participate online over a less intensive period.

The school aims to develop negotiation and communication skills to support teamwork and decision making. The online course comprises activities organised in four stages of between three and six days, with students required to complete each stage in order to move on to the next. Students are typically allocated to groups of twelve, supported by a group tutor. Due to the collaborative and time-bound nature of the course, they are asked to be online each day and are expected to make a substantive contribution to each stage. Each stage includes information-sharing, problem solving and case study work which aims to help students to appreciate how a variety of contexts, organisations and values result in different perspectives on and approaches to management. Some work is undertaken individually, but most is conducted collaboratively in groups of up to six students. At the end of each stage, the group reviews what has been learned. After the final stage, students additionally reflect on their own learning about online teamwork, undertake a self-assessment of their online interpersonal strengths and weaknesses, and consider what is needed for their future development. Although Race (2005) was not used in the design of this online learning experience, his exposition on the different ‘ripples’ of learning resembles the experiential learning design of the OMC.

Prior to the course, students are sent a statement of expectation for the OMC, and told that the learning diary is

‘...crucial to the whole purpose of the OMC: to develop your experience and learning about team-working in a virtual setting. Whenever you think or observe something about your experience of the OMC and online group work, and certainly at the end of each of the four stages, make a note about it here. Your tutor, but none of the other students, have access to your Learning Diary.’

The content and structure of students’ entries in their learning diaries are left entirely to the students. It is important to note that the content is not assessed. The posting of at least four entries is noted, but apart from these practical arrangements, students are not advised about the content of their diaries nor about how reflectivity can potentially enrich their learning and empower them to become managers.
In the more public end-of-stage reviews, students are asked to reflect on and evaluate not only their own learning, but also their experiences in groups. These reflections are structured around specific questions. A comparison between these public reflections and students’ postings in their learning journals is the focus of further research not reported here.

For the purposes of this study, we reviewed the work of a group of 12 students. The student profile (compiled from information provided as part of an introductory activity) shows the following:

- Five males and seven females.
- Four students explicitly identified themselves as managers.
- Two students outside of the UK and in different time zones.
- Employment backgrounds included banking, engineering, a development agency, petrochemicals, healthcare, manufacturing, retail and tertiary education.
- Students were not required to reveal their nationality, race and educational background.

The learning diaries were confidential and read only by the tutor and the course director. Although the minimum requirement was that students post at least one entry into their learning diary within each stage, six students posted reflections on more than 15 days, while a further three posted entries on ten of the 18 days of the school.

**METHODOLOGICAL CONSIDERATIONS**

The research scope and methodologies were clarified with the OU Research Ethics Committee (REC). Students and tutors taking part in the course were made aware that their postings would be monitored for quality assurance purposes. The REC judged that, since students and tutors did not know which group would be selected for observation by the researchers, the observation would not have any partisan effect on engagement nor require individual permissions. The research was approved on the provision that the anonymity of the students and tutor involved were assured.

This research was a phenomenographic study as described by Booth 1997 and others (e.g., Marton 1981; Säljö 1997; Svensson 1997; Trigwell 2006; Trigwell, Prosser & Ginns 2005). Phenomenographic research aims at the description, analysis and understanding of

In our analysis of students’ postings to their diaries, we wanted to get a sense of the worlds that learners themselves experience and describe (Richardson 1999:57). Based on the description of various authors (Booth 1997; Marton 1981; Säljö 1997; Svensson 1997; Trigwell 2006; Trigwell, Prosser & Ginns 2005), we decided to define our research as phenomenographic and to use methodologies described as appropriate in phenomenographic research (e.g., Ashworth & Lucas 2000).

Entwistle (1997:128) warns that some qualitative research, claiming to be phenomenographic, lacks ‘the necessary rigour, either in design or analysis’. He further states that outcomes of phenomenographic analysis should be presented with sufficient extracts to fully illustrate the scope of the category as well as any ‘salient features’ which distinguish it from others. Phenomenography then requires the investigation of the relationships between the different categories, highlighting the variations ‘exemplified by individual respondents’ (Entwistle 1997:133). As a way to ensure rigour in the design and analysis of this study, the guidelines provided by Ashworth and Lucas (2000:300) and Cope (2004) were taken into account with special care not to impose any presuppositions onto the analysis of participants’ reflections.

In following Richardson (1999:59), we accepted the statements of students in their learning diaries at face value. The learning diaries included over 16000 words from a single tutor group exported from a Moodle-based learning platform. The text was analysed using a grounded theory approach (Glaser & Strauss, 1967) using Nvivo 7. The team open-coded the texts and ensured validity by comparing and agreeing similarities and differences. The agreed list was used to guide the coding, although additional codes were introduced throughout in order to allow the text to ‘speak’. Each researcher took responsibility as first coder for a number of learning diaries, sharing their output and then working through the text of the remaining learning diaries. This resulted in a surface-level descriptive thematic
Notes made of impressions and observations were shared and reflected upon in the research team.

Main trends and patterns were identified as themes (tree nodes) where three or more students’ comments could be fitted into that theme. Quotations from the actual learning diaries have been selected to illustrate the analysis. The analysis revealed the following themes or categories of description, Säljö (1997:175):

1. Evidence that students reflected on the act of completing a learning diary (Theme 1: The nature of reflection)
2. Evidence that students ‘imported’ their own worlds into personal and group learning processes and compared the online experience with face-to-face settings (Theme 2: The act of being online)
3. Reflections on the nature of learning online – the impact of time and technological difficulties (Theme 3: The nature of online learning)
4. Comments on the way that the group worked together – students’ own roles within the group, the roles and contributions of others and, when subdivided, the ‘results’ of another group’s findings (Theme 4: Learning online, together)
5. Reflections on students’ growth as apprentice managers and learners. Evidence of self-awareness, emotions, feelings of excitement, anticipation and frustration (Theme 5: Becoming a manager)

The next section further explores the themes, and includes a selection of quotations relating to each. We attempt to find relations between these themes, as suggested by Entwistle (1997:133).

ANALYSIS AND DISCUSSION

In the quotes provided below, student names are changed to ensure anonymity. The quotes are produced verbatim and the spelling and grammatical mistakes are those of the students.

**Theme 1: The nature of reflection**

While some students expressed their discomfort in completing learning diaries in the structured reflections at the end of the OMC (Prinsloo, Slade and Galpin 2008), there was no indication in their diaries that they experienced the posting of thoughts as ‘reflection on demand’ (Boud & Walker 1998). To the contrary, students were relaxed in their writing and
often addressed their tutor in a conversational tone. They posted comments on their personal programmes, lack of time, their frustrations with the course content and group members, technical difficulties, and a range of other personal information. These provide a rich backdrop for analysing students’ encounters with the online learning environment. For example, Andy writes “logging in this early is out of sink (sic) with everyone else, as they seem to do most of theirs in the evening.” Janet writes “I was really disappointed not being able to get online yesterday, which also surprised me how much when the ideas are flowing you want to be able to discuss…”.

Some students addressed the tutor in their diaries as a strategy to relate to the anonymous reader. Jan, for example, reflects on an activity in which they try to establish, as a group, the veracity of some information about the tutor. She writes “Oops forgot to edit my learning diary entry yesterday, sorry (tutor’s name)”. Later, other students also posted reflections addressed to the tutor, specifically thanking him for his input. Fran, for example, writes: “I do feel well supported by you, (tutor’s name), and I appreciate your efforts to point me in the right direction”. Interestingly, although students had the opportunity to thank the tutor in the group’s public discussions, three conversed with him in the privacy of their learning diaries.

In general, the tone of students’ postings showed that they were quite relaxed about the unstructured format; some were prepared to ‘bare it all’ – although they knew it would be read by the tutor. There is ample evidence of students ‘talking to’ their diaries. The conversational and relaxed manner of the entries is obvious in a posting from Beth, who writes: “Oh my god, where do i start? I am so going to struggle”, and later, “I’m losing it!! Aahhhhhhh.”

Theme 2: The act of being online

Evidence suggests that all students reflected on the implications of being online in their learning diaries. The diary allowed students to record their joys, fears, expectations and frustrations – evidence of self-awareness and introspection. Bevan, for example, writes during the early stages of the OMC: “Ran back to see who else had logged on and joined in.” Later he wrote: “Can’t wait to see the answers tomorrow!!” (sic)

Students reflected fairly naturally on how being online feels, and often compared this with their experiences in face-to-face learning environments. There were some reflections that showed anxiety about the experience; some postings showed a preference for face-to-face
interaction and many reflections shared the unique opportunities of being online. Evidence suggests that being online can often be a very lonely experience, despite being part of a community. For example, Peter writes: “I appear to be the only one online which makes it hard to start the next stages” and again, “No one on line again though at the moment, will keep checking throughout the day.” And Jan describes being online as: “Finding this exercise of working with a virtual group online quite hard, I miss the face to face discussion aspect where you can argue out the problem 😞Hopefully it will become easier”.

These postings suggest that, for these students, being online may require different approaches and skills from being together, face-to-face. Being online not only requires a certain technical and online literacy, but also a way of being.

**Theme 3: The nature of learning online**

The purpose of being online for this exercise, unlike other online ways of being (e.g., blogging or using a search engine such as Google), was to learn. In the specific learning environment of the OMC, learning is structured as experiential and problem-based (see, for example, Race 2005). Throughout the four stages of the school, learners in tutor groups work collaboratively to solve a problem. In the first stages, the activities require learners to develop and nurture group cohesion, and in the latter stages, to work as teams in order to solve a problem that managers might face in the ‘real world’. Students’ postings reveal that online learning involved a number of surprises and was influenced by various technological difficulties, the amount of time online learning required and divided attention between learning activities and personal and professional programmes.

Technical difficulties, whether in getting to know the learning platform or as evidence of a lack of computer literacy, were apparent early in the OMC, although, as might be hoped, were not mentioned at all in the later stages. For example, early on, Esther wrote: “still struggling a touch with navigating around the site...!” Sarah also writes: “I have had a nightmare today ... my computer kept crashing and then when I went to edit again I could not save my written work.”

The relatively high number of comments posted regarding the technicalities of learning online, whether it was an issue of connectivity or personal skills, strongly suggests a need for
designers and managers of online learning experiences to anticipate issues and design activities that can be undertaken without the technology adding to the difficulty, as well as providing instructions that can be clearly understood.

Almost all students (11) posted remarks about a lack of time (personal and work pressures), or the fact that team members were online at different times (personal and work programmes), or the impact of different international time zones. William comments on his online engagement, saying: “I must have been online since 8.00ish and its now 23.30!”

Learning online does not allow students the luxury of focusing only on the learning experience. Many students choose an online learning option as they are constrained by the demands of family or employers. Online learning therefore causes additional frustrations when it is affected by students’ other commitments and geographical location. An example of the impact of location on learning online is given by Martin (one of two students outside of the UK), who writes: “Working in an area that is being rocketed 3-5 times a day means that work time is constantly being interrupted, and that organising a schedule is next to impossible.”

The coding exercise and the quotes above suggest that an online learning experience may require much more of students than they expected. The diaries are permeated with expressions of frustrations of being unable to balance all commitments effectively while also being committed to learn online.

**Theme 4: Learning online, together**

One of the primary objectives of the OMC is to engage students in the complexities, challenges and opportunities of working together in a team in order to solve problems. Being separated from one another, in relation to both time and location, adds a dimension to learning as part of a team that students in face-to-face learning would not experience. The majority of students reflected on various aspects of working as part of a team. There are postings celebrating the richness of the diversity, comments revealing frustration with the time taken to reach a decision online, and postings about the different roles in online group learning and the different interpretations of these roles.
This tutor group contained both students who had worked in management for quite some time and those who had never been part of a management team. The fact that the group had come together for a common purpose was mentioned by several learners. For example, Jan writes: “...all of the group have got involved in some way and are learning all about teamwork, and how everyone can work together and build and work on a business plan.” Although the majority of the group was largely positive about working as a team within their individual diaries, there is clear evidence that working and learning as a team has its own complexities and challenges.

There was overwhelming evidence that students showed appreciation for the roles and contributions of specific group members. For example, Peter refers in his learning diary to the contribution of one team member by writing: “Bevan has been brilliant and put alot (sic) of effort in.”

Some students also reflected on a lack of contributions from group members. Peter again writes: “Not much coming back from the rest of the group though. They have posted comments like this is out of our experience. etc. I have tried to cuddle them to get them more confident.”

**Theme 5: Becoming a manager**

Students posted a range of comments on the course content, the problems they were required to solve and how these relate to their current experiences in the workplace. For example, Martin (who has a military background) reflects on the influx of military terminology in ‘business-speak’. He writes: “Military jargon is moving into the business world, mission statements etc, are fine for military but very restrictive to management that wants to use initiative (sic) and expand a business.” Beth responds to the proposal to work on another student’s proposed problem and says: “I can relate to myself with regards to Jo’s problem, as i’ve been through this stage when i worked as a supervisor.”

While the previous two quotations are examples of students reflecting as managers, Fran reflects on her lack of experience in management and how it affects her contributions to the team. She writes: “I am feeling terribly worried at this point as I am not a manager and have very little experience in relation to this task, however I will do my best to keep up with the
group and hopefully I will gain a better understanding from my team.” Relating their learning to the process of becoming managers, Frances reflects: “Although some of us might not have come across this hurdle yet, I'm sure as managers we will at some point in the future.”

AN ANALYSIS OF THE RELATIONS BETWEEN THE DIFFERENT THEMES

The final step of a phenomenographic research project is to analyse the relationships between the different themes, and explore possible conclusions. The analysis of students’ postings identified five broad themes, namely:

- The nature of reflection (Theme 1). Students commented on what it feels like to post their thoughts (and have someone else read them)
- The act of being online (Theme 2). Students reflected on how it felt to be online, as opposed to being face-to-face
- The nature of learning online (Theme 3). Students posted thoughts on the technological difficulties, the time it takes, balancing learning and personal and professional life worlds, etc.
- Learning online, as a group (Theme 4). Collaborate problem solving tasks resulted in postings sharing experiences of other group members, tasks completed, individual responsibilities and claims, etc.
- Becoming a manager (Theme 5). Students reflected on how the content of their online discussions related to being a manager

Of these five themes, three deal explicitly with the online environment (being and learning online and learning online as a group). The first theme clusters together postings on the act of reflection, that is, of posting thoughts in an online diary. Theme 5 clusters together postings of students on the rationale for undertaking the OMC, namely, as part of the academic requirements of the course which leads to a professional management qualification. Only four students were already in formal management positions, but, irrespective of their current employment, all of the students saw this course as enabling them to become (better) managers.
Gray (2007) classifies different ‘tools’ to enhance reflection, suggesting these to be a log, diary (or aide-memoire) and reflective journal. Almost all of our themes fit into Gray’s (2007) description of a log and a diary. Only theme 5, in which students reflected on becoming a manager, did the postings start to resemble the kind of reflectivity Gray (2007:508) expects in a reflective journal.

**SOME IMPLICATIONS FOR THE USE OF ONLINE LEARNING JOURNALS**

In the context of this online school, learning diaries are a compulsory and unstructured element of the learning experience, although the content is not assessed. Strictly speaking, according to Gray (2007), most of these postings are not characteristic of those in a fully fledged reflective journal. Though the learning diary allows students the opportunity to assess their actions and learning and, in becoming more self-aware, actually to shape their learning and engagement with others, most of the postings were ‘self-referential, inward looking and uncritical’ (Boud & Walker 1998:193). Though these do not provide evidence of profound self-awareness and changes in assumptions and actions, we did find clear evidence that suggests that the diaries helped students to locate themselves in the broader disorientation of learning online, expressing their thought-processes, emotions, expectations, disappointments and a new awareness. The learning diaries also allowed students an opportunity to reflect on and deal with feelings of dislocation. Many of the entries expressed a feeling of dislocation in the online environment: problems with navigation, feelings of isolation and missing physical contact, and the impact of asynchronous postings run like a leitmotif throughout the learning diaries.

It remains to be seen whether learning diaries could fulfil a more effective role in students’ learning in the specific context of online collaborative courses. The following possibilities need to be considered:

Firstly, unstructured and un-assessed diaries do allow for spontaneous and authentic reflection. In order to ‘deepen’ the reflection and learning, there is a temptation to provide more structure by proposing specific headings or even questions. This may, however, impact negatively on the spontaneity of student postings and erode the difference between
learning diaries and more formal review activities. In an environment where the lack of human contact is already mourned, the human and private space of the learning diary should not be compromised. Boud and Walker (1998:193) have also pointed to the tension between ‘reflection on demand’ and unstructured reflections, which may lack in depth and learning.

Nevertheless, the need to nurture reflective and critical mindsets is increasingly important (Mintzberg, 2004). There is, then, an imperative to explore initiatives that may deepen reflection and critical engagement while not compromising spontaneity. Therefore, in the orientation to an online course such as this, students may be prompted to use their diaries to reflect on their own assumptions, praxis and beliefs. A structured ‘private’ reflective activity at the end of each main activity may also be useful, for both students and the tutor, as well as for learning designers and managers. This might ask students, specifically, to reflect on how their experiences during the particular activity affected their assumptions about and practices as (future) managers.

Finally, while learning diaries offer one way to increase reflectivity in learning, they are not the only way. In order to make reflection-in-action, reflection-on-action and reflection-for-action (as proposed by Schön, 1983, 1987) an integral part of the learning experience, it is important that the curriculum be structured with increased reflectivity, critical questioning and engagement as essential outcomes.

**CONCLUSIONS**

This article reports on students’ use of unstructured private online learning diaries. These diaries provided students with the possibility to locate themselves, their experiences, their frustrations, hopes and fears with regard to the online learning experience. Should the curriculum envisage more profound reflections and personal change in the process of becoming managers, this research suggests that students need further guidance, and perhaps structure in using online learning diaries.

This study suggests that unstructured learning diaries can play a valuable part in online learning. However, further work is needed to determine whether learning diaries are not only valuable, but essential, in online learning and becoming managers.
REFERENCES


