

# Supporting distance-taught students in the workplace

Distance-taught students

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49

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## Abstract

**Purpose** – The purpose of this paper is to investigate the effect of workplace support measures offered by employers on the academic performance and satisfaction of distance-taught paramedic students.

**Design/methodology/approach** – Using a combination of quantitative, qualitative and open text data, the authors identified factors important for student success.

**Findings** – Dedicated study time was not a significant predictor of student pass rate, but was related to the quality of achievement as measured by pass grade. More important for success were less tangible factors such as relationship with a mentor and being part of a supportive peer group.

**Research limitations/implications** – The number of respondents to the survey of graduates in the second part of the investigation was small ( $n = 30$ ; 8.9 per cent) and limited to one profession (Emergency care).

**Practical implications** – The support measures the authors have identified should be overtly built into new course design. Placements undertaken away from the primary workplace should be well organised, and students proactively supported while undertaking them.

**Originality/value** – The value of these findings is that they inform, and can be used to enhance, the experience of students on work-based learning programmes and also on degree apprenticeships.

**Keywords** Higher education, Distance learning, Work-based learning, Student experience

**Paper type** Research paper

## Single Sentence Summary

A survey of graduates of a distance-taught work-based learning qualification identified aspects of support required by students to succeed in this context.

## Introduction

Students who are learning in their place of employment have a learning experience that is different from those of their peers learning on campus, or on a distance learning programme (Tynjala, 2008). The practice of work-based learning (WBL) is evolving as this method of learning is increasingly the method of choice for employers who wish to “grow their own” and ensure that their workforce is appropriately qualified and able to respond to challenges. WBL is by its nature transdisciplinary (Nottingham, 2017), combining as it does one or more bodies of specialist knowledge and an understanding of how to apply this knowledge in a work environment. This is in contrast to an undergraduate student (UG) studying a

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conventional university programme full time, where the learning experience may not lend itself to practical application of the knowledge acquired.

The experience of students undertaking WBL has been studied previously (Liyanage *et al.* 2013). These authors found that WBL students have different study motivations from conventional UGs, and that professional accreditation can be a strong motivator. This is certainly the case for the cohort of learners studied in this paper, who were aiming to complete the Foundation degree qualification and hence become eligible to apply to the UK's Health and Care Professions Council (HCPC) to register as a Paramedic. The needs of employee learners are more complex than those of traditional UGs: Kettle (2013), and Pennaforte (2016) stressed the importance of comprehensive support for WBL students from university staff, the employer organisation, their supervisors and their peers. The environment in which learning occurs is important for student success (Lester and Costley, 2010), and since student paramedics work in a challenging environment it is likely that good support structures are particularly important for them. McEwen *et al.* (2010) noted the importance of proper engagement with the employers, and in the same study students themselves emphasised the importance for success of the quality of their workplace supervision and feedback, and the space to start to become autonomous.

Although many authors (e.g. Garnett, 2016) have stressed the necessity of good supervision and mentoring in the workplace, Liyanage *et al.* (2013) found that many WBL students had no workplace mentor, an observation they highlighted as a major concern. Talbot and Lilley (2014) noted the particular importance of supporting WBL students in carrying out practical projects in their workplace, a feature of many vocational programmes including the one discussed in this paper. Students also require good support in their practice placements, and they correlate their perceived support with the quality of the placement experience (Naseem, 2013).

The Open University (OU) has a history of teaching students in the workplace, for example in nursing qualifications and in foundation degrees. The support needed by such work-based students differs from the traditional OU model of tutor-supported distance learning, and, as suggested by prior research (see above), students are given more work-focussed and pastoral support, for example by a mentor or a practice tutor. To further explore the requirements of these students, who are not only studying in the workplace, but are also part-time distance learners, we carried out a research project focusing on graduates of the Foundation degree in Paramedic Sciences. This qualification (240 credits) was offered from 2008 to 2018 and included a substantial WBL component, undertaken in an Ambulance station, and including the capstone module which taught and assessed all the necessary practical skills. During this final module students were required to achieve academic success, measured by written assessments and a research project; they also had to complete more than 150 work-based activities and to attend four weeks of placements at various other health care locations in order to achieve competence in practical skills. Responsibility for the WBL students was shared equally between the OU and the employer: each had specific responsibilities towards the student, stipulated in a contract. Internal survey data showed that the WBL students were generally happy with their academic tutor support but many claimed that they did not receive adequate support from their employer. Employers' contractual obligations included access to a computer, text books, practical workshops, anonymised clinical data and provision of a workplace mentor. Employers confirmed that they fulfilled these obligations towards the students, and indeed there was a high pass rate (> 80 per cent) for the whole cohort, even though students anecdotally found the capstone module very difficult. However, there was considerable diversity in the level of support experienced by students in their workplaces, and in satisfaction surveys many reported high levels of anxiety, frustration and unhappiness during their studies.

The aim of this research was to identify factors in the workplace that impact on the student's learning experience and success. We investigated the academic performance of the student Paramedics, and the effect of the support measures offered by their employers. In addition to the normal satisfaction surveys completed by students during their studies, we asked graduates of the Foundation degree in Paramedic Sciences to reflect on their experiences of WBL by means of a survey questionnaire designed to probe both quantitative (such as facilities and opportunities provided by the employer) and qualitative (such as whether the student felt part of a learning community) factors.

## Methodology

Ethical approval for this project was obtained from the Open University Human Research Ethics Committee, and the online survey was designed with help from Dr Doug Clow and the Student Research Project Panel, who also approved and administered the survey. Participants were recruited from among students and graduates of the OU's Foundation degree in Paramedic Sciences. Their responses related to their time studying the capstone WBL module, a 60 credit module studied over 17 months in parallel with other, distance-taught, modules. All student enrolment to the Foundation degree was from pre-existing employees in the Ambulance service (98 per cent in the UK National Health Service and 2 per cent in independent organisations), mostly working as Emergency Care Assistants or equivalent roles and wishing to become registered Paramedics. Students were supported and sponsored by their employers, who undertook to provide them with suitable facilities, learning opportunities and a workplace mentor (see above). Employers were also responsible for arranging practice placements for their student Paramedics. Such placements are an essential component of Paramedic training, as specified by the College of Paramedics and the HCPC (College of Paramedics, 2014), so hold considerable importance within the Foundation degree. Although employers were advised to give the students protected time to study, not all of them did so, and students frequently had to use their annual leave to complete their studies.

Seven cohorts of students ( $n=616$ ) were included in this study. Anonymised demographic data were obtained from university records, and in the first part of the study responses were collected from the end-of-module survey that was sent to all students upon completion of the module (Table I).

For the second part of the study, 339 graduates of the programme were invited to participate in a further survey that probed more deeply into their experiences as a student and included categorical, semi-quantitative and open text questions (Table II). There was a low response rate for this part of the study, and only 30 individuals (8.9 per cent) completed the survey. All respondents were from England.

Quantitative analyses were carried out using Microsoft Excel® and GraphPad Prism v5 (GraphPad Software, San Diego, California, USA, [www.graphpad.com](http://www.graphpad.com)). Textual analysis was carried out using NVivo (QSR International Pty. Ltd, [www.qsrinternational.com](http://www.qsrinternational.com)).

## Findings

### *Macro effects of the workplace environment*

The first part of this study investigated whether the facilities provided by employers, and particularly the amount of protected study time allowed, affected student performance. Figure 1 shows that only 8 per cent of respondents said that their employers had given them protected study time. This is in contrast to the large number of respondents who were provided with a computer (60 per cent) and with skills workshops (77 per cent).

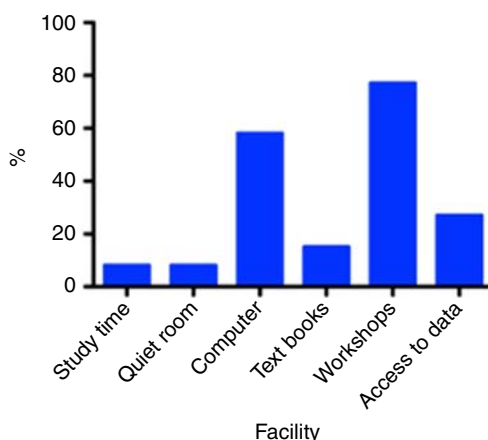
Macdonald *et al.* (2010) have emphasised the need for dedicated study time for student success. We compared the pass rates and the quality of the pass (as judged by scores above 70 per cent in the summative assessment) achieved by students in three different NHS

**Table I.**  
WBL-associated  
questions asked in the  
end-of-module survey

| Question<br>number                                                                                 |                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                                                                                  | I was satisfied with the accuracy of the preparatory information and advice received about the work or practice based component                   |
| 2                                                                                                  | I had a clear understanding of the knowledge and skills I needed to demonstrate to meet the professional/statutory body requirements              |
| 3                                                                                                  | I was allocated work or practice based experiences suitable for my module                                                                         |
| 4                                                                                                  | I was able to access learning resources when required (e.g. expert colleagues/parents, key documents and/or other resources)                      |
| 5                                                                                                  | I had sufficient opportunity to complete the work or practice based activities to meet my required practice learning outcomes/competencies        |
| 6                                                                                                  | I was able to relate theory to my work/practice                                                                                                   |
| 7                                                                                                  | My assessor (e.g. supervisor/mentor) understood the work or practice based requirements of the module and was able to explain these to me clearly |
| 8                                                                                                  | The assessment activities for the work or practice based component enabled me to provide evidence of what I had learnt                            |
| 9                                                                                                  | I was satisfied with the formal assessment of my practice in the work or practice place                                                           |
| 10                                                                                                 | I received appropriate support from my OU programme/practice tutor on the work or practice based component                                        |
| 11                                                                                                 | Overall, I was satisfied with the level of support provided during my work or practice based learning by the OU                                   |
| 12                                                                                                 | I received appropriate supervision, and feedback on my practice by my assessor(s)/supervisor/mentor                                               |
| 13                                                                                                 | Overall, I was satisfied with the level of support provided during my work or practice based learning by my placement provider/employer           |
| 14                                                                                                 | My contribution during placement/work experience as part of the team was valued                                                                   |
| <b>Note:</b> All responses were on a five-point Likert scale (strongly agree to strongly disagree) |                                                                                                                                                   |

**Table II.**  
Questions asked in  
the detailed survey

| Quantitative questions                                                                                    | Qualitative questions                                                    | Free text questions                                                          |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------|
| After successfully completing your Foundation degree, did you apply for HCPC registration as a Paramedic? | Which Employer were you working for during your FD studies?              | Please describe how your work environment affected your studies              |
| How long did you work for this employer after registering as a Paramedic?                                 | How easy was it to contact the Education Officer?                        | Please describe the difficulties you experienced with placement organisation |
| How were your studies funded?                                                                             | What study facilities did your Employer provide?                         | Please describe the quality of your placement experiences                    |
| Did your Employer have an Education Officer?                                                              | How would you describe your relationship with your Mentor?               | Do you have any other comments about your study experience?                  |
| If yes, did you try to contact the Education Officer?                                                     | How easily could you approach your Mentor for Competency sign-off?       | Do you have any advice for other students undertaking work-based learning?   |
| Did you have the same Mentor throughout the module?                                                       | To what extent were you part of a student community in your workplace?   |                                                                              |
| Was your Mentor based at the same ambulance station as you?                                               | To what extent did you feel supported in your studies in your workplace? |                                                                              |
| Who organised your placements?                                                                            |                                                                          |                                                                              |
| Did you have any difficulties with the organisation of your placements?                                   |                                                                          |                                                                              |



**Note:** Most respondents chose at least two of the categories, which is why the percentages add up to more than 100

**Figure 1.**  
Percentage of  
respondents able to  
access study facilities

Ambulance Trusts and a small group of independent providers. The results are shown in Table III.

Surprisingly, among the NHS Trusts there was no effect of study days on pass rate, but there was a significant effect on pass quality, with students who were given more study time achieving higher pass marks ( $p = 0.02$ , ANOVA). There was also a significant difference in both pass rate and pass quality achieved by students from NHS Trusts compared to those from the independent providers ( $p = 0.04$ , Fisher's Exact test).

The marked differences between students working in NHS Trusts and those in independent providers suggested that the better infrastructure in NHS organisations, and perhaps consequently a more positive and supportive environment, is an important component of student success. For example, one student from an independent provider commented:

This course is impossible to complete if you do not work for the NHS. I have made approaches to local NHS Trusts for placement opportunities, none of whom will accept non-NHS applicants.

and:

It is only my employer's secretary who deserves a thank you for ringing after hospitals.

However, even successful students complained about the level of support they received in the workplace. For example, the end-of-module survey (Table I) revealed that only 47.9 per cent felt that the feedback they received on their practice was good, only 43 per cent felt that they were well supported by their placement provider, and just 13 per cent felt that

| Employer     | Study days per year | Pass rate (%) | Per cent of students achieving scores > 70% |
|--------------|---------------------|---------------|---------------------------------------------|
| NHS Trust 1  | 17.5                | 94            | 28                                          |
| NHS Trust 2  | 29                  | 85            | 46                                          |
| NHS Trust 3  | 0                   | 89            | 34                                          |
| Independents | ND                  | 56            | 10                                          |

**Note:** ND, not declared

**Table III.**  
Pass rate and pass  
quality for students  
from different  
employers

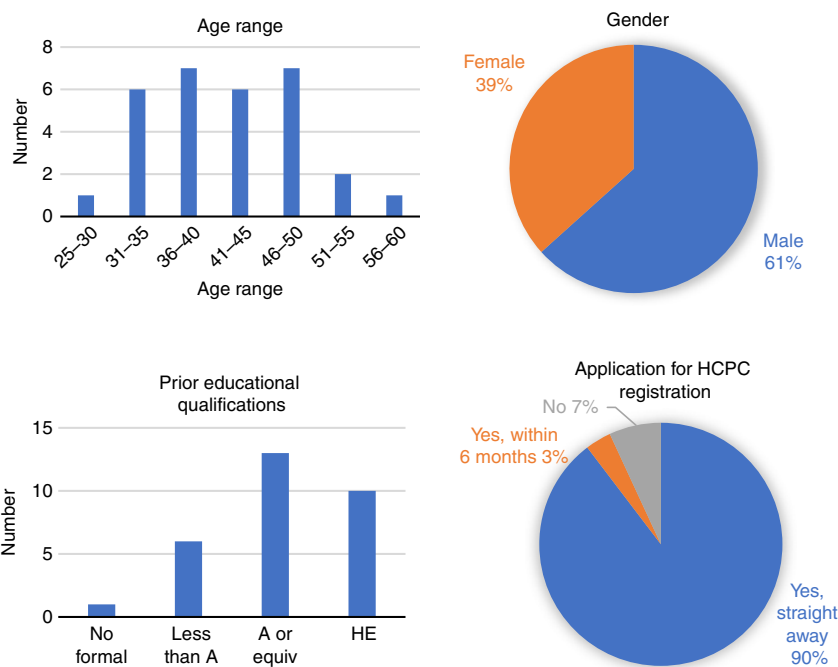
their mentor understood their needs. These results prompted us to extend our initial analysis to explore workplace support in more detail.

*Micro effects of the workplace environment*

Reporting on a large international study, Drysdale *et al.* (2016) asserted that WBL students cope differently with workplace challenges depending on their psychological make-up, with those having a strongly positive self-concept and good time management skills faring better than others. Anxiety, particularly for female students, was a significant issue. Therefore, in the second part of this project we used a targeted survey (Table II) to gain more insight into students' emotional as well as practical needs in the workplace. We sought to collect information about real workplace conditions from the student's perspective (as opposed to what employers told us) and to identify factors that are important for student success in workplace learning.

*Participant demographics*

Demographic data for participants in the second part of this project are summarised in Figure 2. Participants ranged in age from 28 to 58 (mode = 42) years. All were Caucasian. In total, 55 per cent had their university fees paid for by their employer and the remaining 45 per cent paid for themselves (not shown). The gender balance was skewed, with 37 per cent respondents being female and 63 per cent male, although this is consistent with the overall gender balance among Paramedics in England (39 per cent female and 61 per cent male; HCPC, 2018). The OU has an open policy for recruitment and there are no requirements for prior educational achievement. Participants in this survey had a wide range of prior educational achievements upon starting the qualification: 23 per cent had no formal secondary school leaving qualifications (UK A Levels), 43 per cent had secondary school leaving qualifications (A Levels or equivalent) and 33 per cent had experience of tertiary education. Overall, 93 per cent



**Figure 2.**  
Demographic data of  
participants in the  
detailed survey

of students subsequently applied successfully to become registered Paramedics. This strong result indicates that in spite of set-backs (perceived or real) experienced by students, the Foundation degree was designed in such a way as to give even low academic achievers a chance to progress in their chosen career. One participant commented:

A very good course and great way of learning to become a Paramedic.

### *Practice placements*

To comply with requirements of the College of Paramedics and the HCPC students on this qualification had to undertake placements in a variety of different health care settings (such as Obstetric Clinics, Paediatric Clinics, Cardiovascular Departments and Surgical Departments). As noted above, the organisation of these was the employers' responsibility, but in fact the detailed survey revealed that 43 per cent of the placements were organised by students themselves (Figure 3). Many experienced difficulties in doing so, in finding time to undertake them and in feeling supported while they were there. Sample quotes included:

Employer did not give us time off to attend placements or study leave or workshops. All this had to be in our own time.

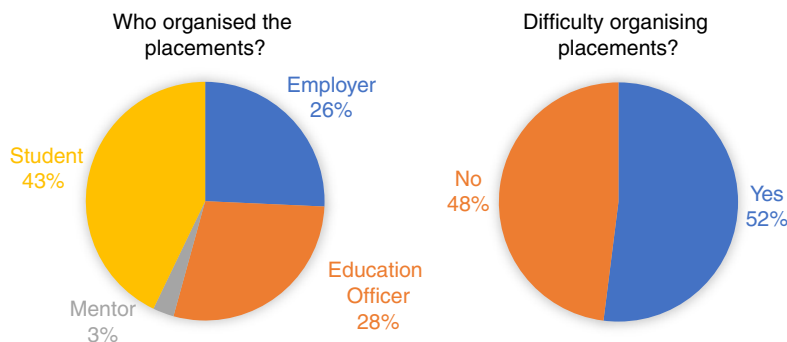
Some placements clearly wanted me there and helped me learn, others weren't so keen and made it clear.

Because they were self organised, I had to "stay under the radar" e.g. I spent a tremendous week on the paediatric ward of a hospital based on friendship with a consultant and had to avoid their hospital placement officer.

Problems around practice placements were a major issue for the students, and in the end-of-module survey of the whole cohort generated the highest number of complaints. Clearly this is an area that education providers and employers need to focus on in the future. However, although some students reported a good learning experience while on placement, a significant number felt unwelcomed by the host department. This is not conducive to learning and practising high level skills such as intubation.

### *Mentor support*

The quality of mentoring during WBL is critical for a successful outcome, and the importance of an effective relationship with a workplace mentor has been reported elsewhere by McDonagh *et al.* (2010), Tout *et al.* (2014) and Kramer-Simpson (2018). Continuity of mentor support is important, as is the availability and ease of access to the mentor. Figure 4 shows responses to the survey questions about mentoring.



**Figure 3.**  
Responses about  
placement provision

The importance of good, consistent mentoring is well known. It was somewhat surprising, therefore, that 28 per cent of respondents did not have the same mentor throughout their studies, and in 3 per cent of cases the mentor was not even in the same workplace as the student, although these factors alone do not preclude good mentoring. In total, 86 per cent of students found their mentor easy (somewhat easy or extremely easy) to contact and 79 per cent had a close working relationship with their mentor.

Peer support

The importance of peer support for students has been previously reported (Tout *et al.*, 2014; Borrott *et al.*, 2016; Pennaforte, 2016), and this factor also emerged in our study. As well as practical problems, students also seemed to lack peer support in their workplace. WBL students were generally not part of a lively student community. Only 7 per cent had many other students in their workplace, and 11 per cent were the only student there (Figure 5(a)). These numbers may have contributed to students' feelings that they were unsupported: only 7% felt well supported, and 47% felt somewhat or completely unsupported (Figure 5(b)). This lack of peer engagement and support is not conducive to student success. Some proactive students made efforts to establish their own peer support groups:

Very supportive crewmates

I had limited opportunities to work with my mentor so ended up with a group of colleagues that I'd built "trust relationships" with and I tended to approach them on issues relating to their strengths and experience

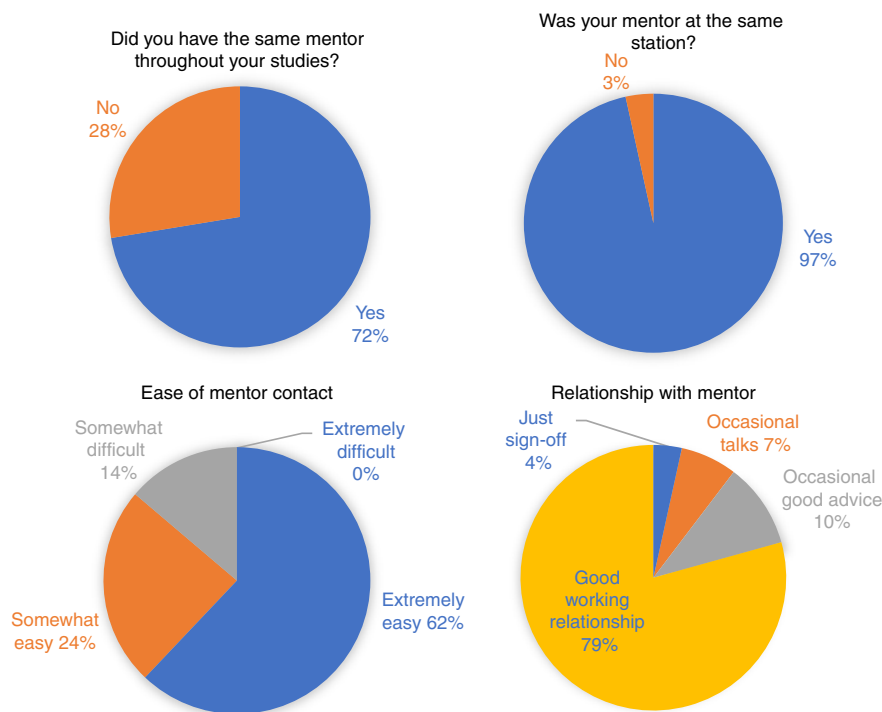
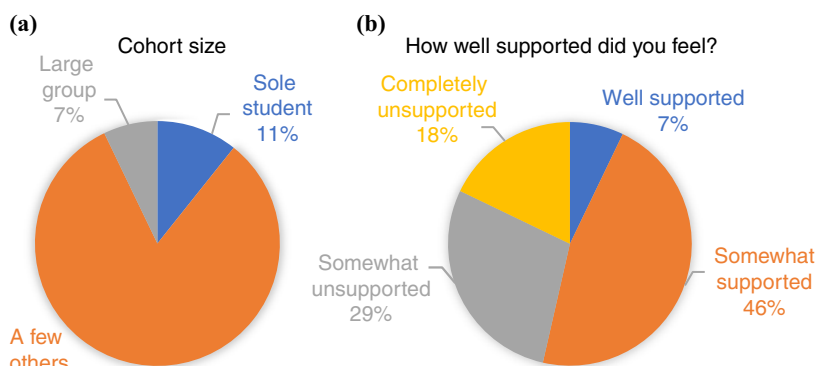


Figure 4.  
Students' views of  
mentor support

Note: n = 29



**Notes:** (a) Size of student's cohort; (b) how supported they felt overall

**Figure 5.**  
Students' perceptions  
of support

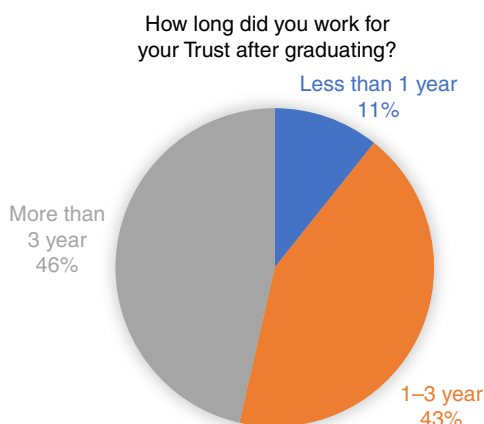
### *Student loyalty*

One of our detailed survey questions (Table II) asked how long after qualifying graduates remained working for the employer with whom they studied. As Figure 6 shows, graduates who became registered Paramedics demonstrated a high level of loyalty and commitment to their employer, with 89 per cent continuing to work there for more than a year.

### *Time management*

We asked respondents to identify other concerns that they had about the workplace learning experience. Analysis of the free text answers provided by the respondents produced the word cloud shown in Figure 7.

It is clear from Figure 7 that time management was a major factor for students on this programme. These students, all of whom were in full-time employment, had a working pattern of 12-hour shifts, changing between day and night and with compulsory overtime during busy periods. In light of this it is not surprising that students felt that they could not easily fit additional study into their normal days and were compelled to use their annual leave to complete their study tasks (see above). It might be hypothesised that the provision



**Figure 6.**  
Post-registration  
commitment to  
employer

**Figure 7.**  
Word cloud derived in  
NVivo from free  
text responses



of ring-fenced study time might alleviate this problem, but our quantitative findings (Table III) showed no significant effect of allocated study hours on pass rate. This does not, of course, provide a measure of student contentment, and this is perhaps better correlated with the effect on pass quality that we report here. Time management skills have been identified as important by Liyanage *et al.* (2013) and by Drysdale *et al.* (2016), who also commented on the propensity of students to procrastinate as a negative factor for their success.

#### *Advice to other students*

When asked what advice they would give to other students undertaking a WBL programme, participants offered helpful advice and clearly articulated the negative effect of their perceived time pressure:

Good time management. Great experience to work and practise what you are learning.

Talk to your [...] mentor if you are struggling. They've seen it all before and know how to help.

Fully engage with it throughout because something that doesn't seem relevant at the beginning certainly proves useful later.

Keep at it, don't give up.

The end-of-module surveys used in this project are given to students when they are still immersed in their studies. This means that the responses are not necessarily very objective, being coloured by the students' most recent experiences. By inviting graduates of the Foundation degree to offer their views, we hoped to capture the benefits of their more measured hindsight and perspectives. We received many more positive comments:

At beginning seemed quite daunting however once completed very glad to have had this opportunity and to become a paramedic at the age of 52. Proved to myself that I could do it and now enjoying a challenging job.

I enjoyed it and admit to working diligently throughout completing all the tasks/activities.

#### **Conclusions**

This study aimed to identify factors in the workplace that affected students' academic achievement and their perception of their learning experience. The study is limited by the

small number of respondents to the survey, and the restriction of our study to one employment area. Nevertheless, by eliciting the views of successful graduates from the Paramedic Sciences Foundation degree, and combining them with the views expressed in within-course satisfaction surveys, we have been able to explore more deeply the factors that are important for the success of predominantly distance-taught students learning in the workplace. Distance learning is an established and respected method for teaching health care (and other) students (Dodds, 2011), but it seems clear that such students have particular requirements that are important for their success and well-being. Although there was no statistically significant relationship between protected study time and student success, there was an effect on the level of achievement (Table III). Moreover, since almost all students commented on the time pressures of their study (Figure 7) it is likely that a perception of time pressure contributed to raising stress levels and negative feelings. We would recommend that this be borne in mind when designing WBL curriculum. Pennaforte (2016) has stated that perceived good organisational support improves students' commitment to their studies, and our findings suggest that committed and successful students remain loyal to their employer (Figure 6). This indicates that resource spent in supporting students as fully as possible will be amply repaid in the long term.

Where placements are a component of the WBL, it is important to ensure that they are properly organised and that students are supported in their placements both by their employer and by the placement providers. It is not conducive to a successful placement if students are made to feel unwelcome and an encumbrance (Dornan *et al.*, 2009).

Finally, an important factor for student well-being is the amount of day-to-day support they receive from both their peers and their workplace mentors. Where students are not part of a large student community in the workplace, the suggestion of "student rovers", students based in other workplaces who can visit the student in their own workplace and provide support in this way (Tout *et al.*, 2014) could be considered. Furthermore, training and development of mentors, such as the programme suggested by NHS Education for Scotland (2008), should certainly be factored in to course planning.

The results from the survey allowed us to identify factors that students claim are important for their success while studying in the workplace. These factors have been used to inform plans for other WBL and Apprenticeship initiatives currently being undertaken within the OU to ensure that the students can be fully supported both by the university and the employer.

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