

Flying Solo: Elevating student sound engineers into responsible work experience roles at live music events

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Keywords: work-experience, responsibility, live-music, sound-engineer.

Abstract

The role of live sound mixer is somewhat akin to piloting an aeroplane full of passengers: you are in control of the outcome for a number of people for a certain time, and must take in a lot of sensory information, process and act upon it using highly technical controls and equipment. Work experience students at live events often work up to this role and have to undertake more menial tasks such as running cables, moving loudspeakers and other equipment, loading vans and trucks; even on a long-term placement. However, by taking the lead from pilot training where the learner takes the controls under supervision of a more experienced professional pilot, student sound engineers can assume control of a live mix with an audience present while benefitting from the guidance of a professional. This article discusses such an approach in the context of its place within or alongside the curriculum.

Introduction

The issue of work experience has become more important in audio education as students generally want to find relevant employment after graduation, and many employers prefer graduates to have some relevant experience. Universities therefore are tasked with making graduates employable (Boden and Nedeva, 2010) and embedding employability into the curriculum: Yorke and Knight refer to experiential learning as ‘developing a number of skilful practices’ and that this ‘development takes time’ and ‘development takes practice’ (Yorke and Knight, 2006: 6-7).

There are a variety of degree qualifications within the broad subject area of audio, including Music Technology, Sound Engineering, Audio Technology, Music Production. According to Cloonan and Hulstedt (2013: 64), at the time of publication there was a type of Music Technology or related degree programme ‘taught in over fifty HEIs across the UK’, and a study from 2014 showed 80 institutions delivering undergraduate programs in the subject area (Thompson

and Mosley, 2015: 2). Despite this, there has been some disdain in the audio and music industries about the relevance of degree-level education for sound engineers, with many of the industry veterans having learned their trade through unofficial apprenticeships, and working their way up through the industry (Lightener, 1993: 7). This has resulted in a prevalent attitude that degree-level studies do not have much relevance in the workplace, as outlined by Bielmeier: ‘Complaints were made that New Hires were unaware of the people skills needed by engineers, and lacked the focus to pay attention to the client’ (Bielmeier, 2013: 2). He also states that ‘people skills are of greater importance than technical skills, and they set apart the seasoned engineer, producer, or musician from an individual new to the business’ (Bielmeier, 2013: 2).

This seeming irrelevance of degree-level study has been compounded by many students and graduates having the view that they learn more within a few days or weeks of a placement or first job than in many months or years of University study, or that what they learn on a sound engineering programme is not relevant, specifically if it is on the scientific periphery of the discipline, such as programming, maths or electronics. Referring to the discipline of Music Technology, ‘students perceive the subject as being predominantly creative rather than scientific, in contrast with the perceptions of the staff’ according to Winterson and Russ (2009: 348). Degree programmes which include these technical elements in a targeted or applied form with relevance to music or sound ‘seem to have the largest amount of perceived relevance by students as every single course seems to be specifically tailor made for their degree’ (Boehm, 2007: 15)

The opposing view, that degree-level education is of benefit to those seeking a career in audio or music production, is gradually taking hold and this may be down to the number of professional music producers and sound engineers taking up academic positions in order to bring industry insight and relevance to those degree programmes in audio engineering and music production. In addition, Scheirman (2013: 5) referring to the professional audio industry states ‘Many of today’s top-tier employees, who first began their careers in the 1960’s and 1970’s, are at or near retirement age.’ So perhaps as audio graduates move into more senior positions within the industry, and as technology continues to develop within the industry, degree-level education will become seen as the norm.

The live events industry, including corporate events and conferences, music events, concerts, festivals, etc. is one where technical skills, fast thinking and problem solving are fundamental to success. This is an ideal ground for allowing students to see where the application of the technical theory they learn in the academic environment can be put to real practical use, while also dealing with professional clients, presenters, arts organisations and performers who will have specific requirements and needs which must be met. There is also the very time-sensitive nature of live events, which must proceed according to the agreed schedule, and can give added impetus to the finding of timely solutions to the various problems and issues that are encountered on a day-to-day basis.

Students undertaking work experience usually do so either on a short term basis for a particular number of hours, or on a more long term placement basis, where they may work for an employer for a period of weeks or months. Many students also undertake part-time work and this may be in industries related to their studies, but not always. This brings up issues of the relevance of work experience, and whether or not it should be offered for credit, which is discussed in a later section of this article.

Work experience students often have to work up to the positions of responsibility, such as driving a work vehicle, or mixing the sound at a concert. Due to the responsibility required, these roles are normally taken by experienced professional staff, and students are tasked with menial work involving manual labour such as organising equipment storage and preparation in the warehouse, loading and unloading vans and trucks, moving loudspeakers and other equipment around in the venue, deploying and tidying up cables, microphones, etc. All of this is necessary work but is not seen as particularly exciting by students. The role of mixing, however, is seen as more technically skilled, more creative and more engaging; and thus more important. This is borne out by the responsibility of a mixing engineer to provide a pleasing sound balance and tonality to the audience that represents the musical performance. It can be understood, then, why a more experienced sound engineer might be chosen to undertake this task, rather than a work-experience student. However, it is possible to work up to the job of mixing, especially if the placement is more than a few days, as students can demonstrate responsibility in the “lesser” tasks, and so may be given the chance to mix for an artist, perhaps a support band at a concert, or mixing the sound for a smaller stage at a festival.

Work experience within the context of sound engineering

This opportunity to assume responsibility for the mix rarely presents itself to those students undertaking shorter term placements or working part-time (Carugo, 2015), as there are usually more experienced staff members on the team. In order to counter this and to offer students some valid and relevant experience, it was decided to partner with some local music organisations who work on a charitable basis in the genres of jazz and folk music, in order to provide students with the opportunity of taking responsibility under close supervision – a model borrowed from the airline industry, where junior or learner pilots take control of an aircraft under the guidance of a more experienced senior pilot (Mavin and Murray, 2010)(Moore et al, 1994).

This has had the effect of getting student live sound engineers into the responsible position of mixing a live event sooner than they would with other more traditional work experience models, some of which may even merely comprise ‘shadowing’ a professional sound engineer at an event without being physically involved in any of the work.

This guided or supervised work experience model also includes standard industry practice, allowing students to develop a complete set of skills for live sound engineering, including understanding of power distribution, speaker system design and calibration, signal infrastructure including active splitters, as well as interfacing with artists and actually mixing a performance. Although the events are of a smaller nature, the working methodologies utilised are exactly the same as those used for the largest concert venues and festivals, although scaled down appropriately for the size of the venue. This has allowed students to work on larger events and to already be familiar with the workflow (in terms of when and how various items of infrastructure are deployed), and with a show-day schedule.

This project approach originated at a local Jazz Festival in 2009, where the organisers had not managed to secure funding for technical support, and the University was looking for a way to provide meaningful work experience to the sound engineering students. The organisers agreed to have students operating the equipment for the jazz concerts, and the University agreed that a member of staff would be present to oversee the work and to be present in case of any major problems occurring that the students did not yet possess the experience to solve.

Student perceptions of work experience

Many employers within the creative industries value relevant work experience (Collis, 2010), although other studies have shown that more general employers (without the need for specific technical skills such as audio) often find that people skills and client skills are more important: ‘employers placed more value on people skills and personal qualities such as confidence, responsibility and commitment’ (Muldoon, 2009: 248). ‘The evidence also suggests that work experience, especially year-long placements, are highly valued by prospective employers and make a significant contribution to improving graduate employability’ (Greenbank, 2015: 187).

Some studies have shown that students exhibit different attitudes to career-relevant work experience and to unrelated paid work (which may include the opportunity to develop soft people/client skills). In general it seems that unrelated part time work is not always seen as a learning opportunity, and often has a merely financial imperative: ‘the vast majority of the students in this study said they were engaged in part-time work, not to develop their employability, but for economic reasons’ (Greenbank, 2015: 192). This goes on to state: ‘a key factor influencing the students’ lack of participation in a range of ECAs is that they did not value such activities as a way of helping them to compete more effectively in the graduate labour market’ (Greenbank, 2015: 196). Students did not see the importance of ‘relevant experience in their term-time jobs’ (Greenbank et al, 2009: 48).

When they do undertake relevant work, part-time or as unpaid work experience, students when surveyed ‘placed far less emphasis on people skills and a greater emphasis on work skills’ (Muldoon, 2009: 243).

However, ‘most students believe that their degree is not sufficient to ensure them a job after graduation’, and so although they may undertake extra-curricular activities (ECAs) such as joining societies as a hobby or for social reasons and not primarily to enhance employability, ‘students often cited participating in ECAs as an appropriate way’ to enhance their CV (Roulin and Bangerter, 2013).

Our experience on this project has been that students place relevant work experience at the lowest priority, and will forego it for paid work unrelated to

their study or in order to improve their academic achievement. Students seem to prioritise their studies over relevant work experience and don't recognise the importance of 'work experience relevant to career path students wish to follow' (Greenbank 2015: 187). 'The students' lack of engagement with career planning and unpaid extra-curricular activities arises because the students tend to concentrate on their studies and obtaining a "good" degree' (Greenbank et al, 2009: 49).

Hunt et al conducted a large-scale survey of undergraduates and their perception of the impact of term-time employment on their studies, and conclude that 'term-time employment reduces academic attainment' (Hunt et al, 2004: 15). The impact was found to be substantial and 'on a scale likely to affect degree classifications'.

This then leads to a discussion about whether to offer academic credit for participation in extra-curricular activity, or for work-based learning, with some programmes requiring an element of work-based learning. This is addressed in a later section of the article.

Flying Solo – a supervised work experience project with similarities to pilot training

At Oxford Brookes University we have run a supervised work experience project since 2009. The University organises volunteer student sound crews for live music events with various arts and cultural community partner organisations. This project originated with the local Jazz Festival and consisted of the student sound engineers working on the festival concerts under the guidance of a tutor, who was available to step in to help with any problems that may have been beyond the students' ability to solve.

This project was found to be beneficial for all parties – the University could validly claim to be supporting the arts in the community, the students got valuable work experience of direct relevance to their studies, and the arts community were able to avail of technical expertise which they would otherwise have had to forego due to budget constraints. The project was expanded to include other community arts collaborators including the local Folk Festival, and several other jazz and rock music festivals and various concert series, all of which were run as non-profit organisations running on miniscule

budgets, and all of which would not be able to afford professional production services. In all cases this was an important consideration – as students would graduate and might want to work for local sound production companies, we could not take any business away from them by undertaking event work that might have otherwise gone to the local production companies. This has been a strict requirement since the beginning of the project, and exists in order to maintain good relationships with the local professional audio industry.

The benefits to students have been reported back to the University in various surveys and informal emails as shown by these examples:

...get involved in further projects, for example the folk festival and the Radio society shows I helped with, on the course which is excellent as it shows true commitment to the students to give us real world experience (year 1 student, personal email correspondence)

The extra-curricular activities provided...in my opinion are as equally important as lectures at university

...these activities where as important to me in my learning and definitely contributed to the marks I achieved in my coursework and degree

Strong working bonds and friendships between students of different years (and courses) can also be forged in these types of activities as they can learn from one another and get a chance to experience new things together (recent graduate, personal email correspondence)

It is this extra curricular practice that allows the student to gain professional experience, build a respectable résumé and to develop an eagerness to succeed (recent graduate, personal email correspondence)

The community collaborators are carefully chosen for suitability on criteria of non-profit or charity status, and on the understanding that the sound engineers supporting the live events will be students, and so might take longer to accomplish some tasks than professional crew. They are reassured by the nature of the supervision on the project, knowing that professionals are on hand in case they are required, and overseeing the work of the students. The collaborating project partners have also given valuable feedback to the University about the project:

...helped make our festivals successes in every way and must have given his students access to a plethora of situations on small and large stages that they may otherwise have taken years to acquire out of university....
(Jazz Festival Committee member, personal email correspondence)

...(the) University, whose team were responsible for the sound and lighting, which added to the general ambience of the evening and contributed greatly to the success of the concert (Jazz Federation committee chair, personal email correspondence)

I was very impressed with the students from (anonymous University) who came to help out at Folk Weekend... I can genuinely say I have never been as impressed with a sound team as I was that night (Folk Weekend committee member, personal email correspondence)

In order to help students understand the importance of the role of mixing for a paying audience, we began to use the term “flying the plane” to describe the taking control of the mixing desk during the performances, and we found it to be very effective in helping the students to grasp the level of responsibility associated with the role of mixing engineer.

The students were able to draw parallels with a scheduled airline flight: the audience and passengers are in the care of the specialists (pilots or mix engineers); there is a scheduled sound check or pre-flight check and the start of the concert or the flight time is not easily changed (and if delayed due to technical difficulties the audience or passengers can become annoyed). Other parallels that were found to help students’ insight into the process included the need of both the pilot and the mixing engineer to take in a large amount of technical information about their environment which changes each second, and to make control inputs to keep the aircraft or the sound balance on track.

We used the analogy of a senior pilot taking-off to mirror the start of the concert, where musicians may play with a different dynamic than during a sound-check, and quick adjustments might need to be made, after which control can be handed over to the learner during the normal phase of the flight, or after the levels have been re-established and need only minor corrections to keep everyone present satisfied.

By continuing the use of the pilot training analogy, students can understand the importance and responsibility of the role of mixing a live music event, and can also understand the model of learning by doing under supervision. It has been described (Purdie and Hattie, 2004: 19) that students understanding the learning process will benefit more from that learning process. Another researcher, Haggis, states that students cannot be ‘successful, unless they understand what it is that they are expected to do’ (2003: 100); and this is supported by a study by Dunn et al (2009: 138) which reports that ‘students described knowledge of their learning styles as a helpful tool’, and that ‘They become able to study more effectively’. Continuing to use the flight analogy during the live events, by suggesting that someone else might like to “fly the plane”, or that a problem during the concert is like “turbulence” allows students to realise when control needs to be handed over in order for someone else to gain experience, or for a mentor to take over to fix a problem. The benefits to understanding the mode of learning are further articulated by Lashley and Barron: ‘explaining learning styles to students and providing suggestions for the improvement of learning, empowers students’ and ‘the process of opening the discussion about learning and learning preferences encourages active reflection’ (Lashley and Barron, 2006: 565).

Despite having run for a period of years, this project still evolves new developments. More experienced students who have been on the work experience programme for a time, and have become familiar with PA system deployment, power distribution, etc, often advise the new students on the project about these aspects of live production. Within the last year this has organically evolved into students actively mentoring each other and actually offering the newer students some time on the mixing console to actually mix portions of the show. This was without any prompting from the supervisor, and can be seen as a display of the more experienced students’ confidence in themselves, and confidence in the abilities of the new work experience students, and also a demonstrates a sense of fairness – that the mix is the most enjoyable part of the whole event, and that they should, in effect, share the fun.

Institutional responsibility

Given that students’ learning benefits from the application of their theoretical knowledge and practical skills in a professional environment, and that the

community and the arts benefit along with the University's reputation; are there negative aspects of this project and the approach that it takes?

The University, by entering into an agreement to offer technical support to the various community collaborating organisations, whether festivals, concert promoters or charities, must then honour those commitments. Schedules must be agreed carefully as events could be scheduled outside of semester time, when students may not be available to offer technical support for events.

Students undertaking voluntary work experience may also decide at the last minute to do something else instead, as they may have higher priorities – for example assignment deadlines, a social event, or perhaps other paid work has been offered at short notice. Greenbank et al (2009) described the priorities of students as being more focussed on their studies than on relevant extra-curricular activity such as work experience, and this has been borne out by the fact that engagement (i.e. student attendance at the live events) with this project dwindles at times of assignment deadlines and towards the end of semesters when assessments become more frequent: 'students tend to focus on their studies and obtaining a "good" degree' (Greenbank et al, 2009: 48). As the work is voluntary, there is no obligation for the students to attend the event, so there is the risk of more work having to be done by other student volunteers or by the supervising staff. On one occasion where no students attended, it was left to the supervising sound engineer to undertake all of the setup and operation for the event without any assistance, which is a risk that needs careful planning to avoid. It has been found that by rostering more students than actually needed for an event that even if some do not attend that there is still enough crew to undertake all of the work needing to be done.

This also leads us to a discussion about the issue of offering academic credit for work-experience in order that students give the activity equal priority to their other assignments. This could help to mitigate against low student turnout for volunteer work experience when the University is, in effect, obliged to support an event for a collaborating partner organisation as students would not then 'perceive the time spent in relevant supervised work experience to be in competition with the time they can spend on other study' (Carugo, 2015: 3).

The credit crunch: offering academic credit for work experience

There are many instances of institutions offering academic credit for work-based learning (Hargreaves, 1996)(Young and Baker, 2013)(Jackson, 2007), and this includes both compulsory work-experience placements and optional work-experiences qualifying for academic credit.

One issue that should be considered is that students may undertake a credit-bearing work-experience module with the idea that it might be in some way less rigorous than a more academically focussed module. As can sometimes happen with a compulsory placement, where students have no real interest in the work, the lack of desire to learn from the experience can result in students being disengaged while at the workplace, with a sense of just putting in the hours, and they are unlikely to gain the full learning benefit from the opportunity. ‘It is important to value practice as an integral part of professional education’ (Hargreaves, 1996. p165). Jackson states (2007: 218): ‘In order to gain credit students are expected to demonstrate that they can learn from and apply experience’.

However, on the University’s project, it has been found that when it was possible to gain some academic credit for involvement with the supervised work experience project, the number of students who felt able to participate increased – likely due to it being seen as having equal priority to their other studies and assignments. The average number of students attending for each event in the semester has approximately doubled. This seems to validate the previous quote from Greenbank et al (2009: 49), that ‘students tend to concentrate on their studies and obtaining a “good” degree’. It has also been found that not all of the students on the work experience project undertake it for academic credit – some are doing it to enhance their skills and to gain experience for their CV.

Although the awarding of academic credit for relevant work experience is an accepted part of the higher education landscape, it is only in recent decades that there has been a widespread recognition by institutions of the extra-curricular activities undertaken by students (Nelson et al, 2012:1). This has also been recently introduced at The University, in the form of recognition for various achievements related to extra-curricular activities, and the supervised work experience project has been included in the activities which qualify for the extra-curricular award.

Extra-curricular awards

Milner et al (2016:14) and Muldoon (2009:238-239) discuss the institutional recognition of the extra-curricular activities of students, whether that is the participation in societies, the undertaking of volunteering, relevant work experience, or even term-time employment. Co-curricular awards ‘can ensure that students recognise even apparently insignificant experiences as potentially useful in an occupational context’ (Milner et al 2016:14). The recognition from the institution, normally in the form of an award or certification of achievement, allows future employers to verify that students have undertaken what they claim on their CV. At Oxford Brookes University, the work experience project is included on a list of approved activities that qualify for achievements aligned to the University’s *guiding principles* of Confidence, Enterprising Creativity, Connectedness, and Generosity of Spirit (Oxford Brookes University, 2017). The University has organised its award scheme to offer gold, silver and bronze awards in each of the guiding principles. To qualify for an award, the student must complete 2 activity achievements in the category of that guiding principle. Each higher award requires another 2 activities must be completed. As this supervised work experience project is primarily concerned with getting students into responsible positions, it was decided to list relevant attainable achievements as being aligned to the guiding principle of confidence. In fact, four consecutive activities have been listed, with each subsequent activity requiring the completion of the prior activity before it can be commenced. Completion of the first two activities will qualify the achiever for a ‘bronze’ award for confidence, while completion of four activities quality the achiever for a ‘silver’ award. Each consecutive activity also requires the students to demonstrate more confidence; for example, the most basic level requires students to demonstrate confidence in setting up the sound system for a given venue independently. The next achievement is to confidently undertake the role of mixing for an event. After this the subsequent achievement requires the students to effectively mentor other less experienced students, and the final achievement can be attained by students demonstrating a level of competence that would allow them to undertake work for a professional sound production company.

There have been a number of such recognitions and awards for extra-curricular work and a variety of models for the awarding of such recognitions; academic credit, and a form of extra- or co-curricular award at graduation seem to be common. However, in all cases the recognition must be in some way assessed, either by way of an academic submission such as a reflective report, or by way

of an academic staff member verifying or signing-off on the activity: ‘This mirrors the graduate recruitment process, where students are required to demonstrate their employability’ (Nelson et al, 2012: 2). They continue to state: ‘When an award is assessed... - it completes the process and ensures quality’.

Conclusion

From a number of studies previously mentioned, and supported by the experience of running the supervised work experience project at Oxford Brookes University since 2009, it appears that students prioritise their formal studies over part-time working and that paid part-time work (although it may not be relevant to the course of study or to future career plans) is prioritised over career-relevant work experience. However, the status of unpaid career-relevant work experience can be raised to equal priority with other academic assignments by offering academic credit.

The benefit from work experience (and the continued good service to the collaborating partners) can only be maintained if the students undertake the work in order to develop their career-readiness. It has been seen on this project that students who joined the project for compulsory work experience credit have sometimes been less engaged, and those students derive less benefit from the whole experience. Moreover, they could be taking a place on the event crew that could go to a more eager student who would derive more benefit.

Despite students placing career-relevant but unpaid work experience at a lower priority than formal study activities and paid part-time work, there is a place for it as an optional part of the curriculum such that it has equal footing with other academic assessments, or as an extra-curricular award bearing activity.

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