

Examining the pedagogy of theatre lighting

Submitted to *Theatre, Dance and Performance Training*

Kelli Zezulka

School of Performance and Cultural Industries, University of Leeds

ORCID: 0000-0003-2978-9204

Email: k.l.zezulka@leeds.ac.uk

Twitter: [@kellizezulka](https://twitter.com/kellizezulka)

Abstract

This article addresses educational routes into theatre lighting for live performance as well as the continuing development of lighting professionals once they enter the industry. Both aspects feed into larger concerns about the industry as a whole: what kind of learning and teaching occur in technical and design fields, what types of education are valued by students and industry professionals, and how a primarily freelance workforce maintains high standards of knowledge in an industry in which technology is constantly and rapidly changing.

Using questionnaire responses and interviews with both lighting professionals and educators, this article explores the current provision of lighting education, beginning by placing it within the context of the wider industry and examining distinctions between academic and vocational training, specifically as they relate to theatre lighting, as well as informal routes into the industry. The current lack of a formal continuing professional development (CPD) programme is problematic and both is a symptom of and contributes to the ongoing precarity of the profession. Drawing on recent reports from government bodies and arts organisations, as well as the qualitative data gathered through the questionnaires and interviews, the article concludes with some areas for further discussion and potential directions for training while also ensuring the professional development of early- and mid-career lighting professionals.

Keywords: theatre lighting, collaboration, professional practice, continuing professional development

Introduction

The education of theatre lighting professionals, including formal and informal routes into employment as well as the continuing education and professional development of lighting designers once they enter the industry, is an under-explored area of research. This area of theatre pedagogy feeds into larger concerns about the industry as a whole: what kind of learning and teaching occur in technical and design fields, what types of education are valued by students and industry professionals, and how a primarily freelance workforce maintains high standards of knowledge in an industry in which technology is constantly and rapidly changing.

In an attempt to begin to address these issues, I devised two questionnaires: one for lighting professionals and one for lighting educators.¹ Both were very broadly defined: 'lighting professional' included anyone professionally employed in lighting as a designer, programmer, production electrician, or manufacturer; 'lighting educators' included those employed in further or higher education and who teach on a drama school or university course. The professionals questionnaire had 30 respondents and seven people completed the educators questionnaire. There was the option to be contacted for a follow-up interview, and I subsequently randomly selected four people to interview. Quotations from participants are presented here anonymously, using 'E' or 'P' ('educator' or 'professional', respectively) and a number as attribution. Any identifying information has been redacted, and all participants will be referred to in the singular 'they' to further avoid identification.

This article will start with a brief outline of current lighting courses² available in the UK, as well as a short review of existing literature and studies, to provide some industry-specific context to this issue. The tensions between training and practice will be discussed, using evidence from the questionnaires and interviews as well as from published studies. I will conclude with some potential suggestions and recommendations for further research.

Context

It is outside the remit of this article to provide a complete history of technical theatre and design courses in the UK (see Zezulka, 2012, for a brief overview), though it will be helpful to briefly examine the current course offerings in the UK, within in the context of the industry.

¹ Both surveys were subject to ethical review by the ethics committee in the Faculty of Arts, Humanities and Culture at the University of Leeds (reference number LTSPCI-047).

² Unless specifically noted, 'lighting' courses refer to those that include design, electrics and/or programming.

A search for 'theatre design' or 'theatre production' on Unistats, or the UCAS website, or the more specialised Performing Arts Technical Training website yields a mix of results, ranging from foundation degrees, BTECs and diplomas to bachelor and master's degrees at drama schools, universities and further education institutions. The degree of specialisation and the amount of instruction specific to theatre lighting (whether that is design, operation, programming or production electrics) varies hugely across these courses. Of the 30 respondents to my 'lighting professionals' questionnaire 25 (83%) had completed some kind of formal training; of these 17 had studied on university or drama school courses and the remaining eight had completed either a short course, foundation degree or diploma, thus demonstrating the many available educational routes into employment in the industry. Many of the questionnaire respondents focused on the technical and interpersonal, rather than aesthetic, skills needed to succeed in the industry, and thus this article will do the same.

Given this variation in theatre lighting provision across the UK, and the limited word count of this article, I recognise that the descriptions and suggestions herein may not be applicable to every course; however, I hope that they can provide a starting point for further discussion. Equally, it is helpful here to note that references to 'the industry' may not necessarily be applicable in a 'totalizing or unified sense' (Caldwell, 2008, p.7) given the relatively small sample size of respondents and interviewees.

The performing arts sector is primarily comprised of a freelance workforce – in 2010, 58% of people working in the industry as a whole were freelance (Creative and Cultural Skills, 2010, p.15). (For comparison, 83% of the respondents to the professional questionnaire were freelance.) This figure is significantly higher in lighting design, in particular – almost all lighting designers working in the UK are freelance (63% of the professional questionnaire respondents were lighting designers). The notable exceptions to this are at the New Vic Theatre in Stoke-on-Trent, which employs an in-house lighting designer, and in-house staff at other venues (for instance, heads of lighting or production electricians) who may occasionally be given opportunities to design. Many may also have 'portfolio careers', in which they work as, for instance, a lighting designer, touring relighter, and production electrician. Demographically, the sector lacks diversity in terms of race, gender and socioeconomic status in particular (Creative and Cultural Skills, 2010, p.15; Nordicity, 2017, pp.68–73; Masso, 2018); this is beginning to be addressed by organisations such as the Association of Lighting Designers, Stage Sight, Creative and Cultural Skills, Skillscene and the National Skills Academy. However, the

industry-wide culture of unpaid or low-paid work, particularly for entry-level workers, coupled with unsociable work patterns, still contributes to significant barriers to entry.

Shepherd and Wallis' (2004) exploration of the history of drama teaching at universities (chapter 1) and the subsequent paradigm shift to 'performance studies' (chapter 7) helps to contextualise the current offering at a more general subject level, and there are many other texts that address theatre pedagogy more widely. There are also several reports commissioned by government or industry bodies that address the state of the creative/cultural industries at a broader level, though the degree to which training and education are explicitly addressed in these reports varies. These include *Creative Britain: New Talents for the New Economy* (DCMS, 2008), *Looking Out: Effective Engagements with Creative and Cultural Enterprise* (Clews and Mallinder, 2010, on behalf of the Art Design Media Subject Centre (ADM-HEA)), *Creative Graduates Creative Futures* (Ball, Pollard and Stanley, 2010) and *Creativity and the Future of Work* (Bakhshi and Yang, 2018, for the Creative Industries Federation and Nesta). Sadly, there is comparatively little literature to be found in the specific field of contemporary theatre lighting education at a pre-career level in the UK, particularly in further and higher education (and even less research to be found on short courses, workshops, apprenticeships and continuing professional development). Notable exceptions here are the *Workforce Review of the UK Offstage Theatre and Performing Arts Sector* (Nordicity, 2017) and *The Performing Arts Blueprint* (Creative and Cultural Skills, 2010), neither of which focuses exclusively on training, but both of which I will draw on throughout this article. Anna Farthing's 2012 report *Mapping Technical Theatre Training* offers the only comprehensive recent review of higher education in this area and addresses the broad range of courses in technical theatre, not just lighting specifically.

Tensions between training and practice

In the UK, the move in the 1950s to a specialist lighting designer coincided with the rise of the director and playwright, and with this came a change in the existing relationships within creative and production teams. Rebellato (1999) points to professionalism and the related change in job titles (e.g. from 'electrician' to 'lighting designer') as 'indicat[ing] much broader transformations' (p.83) in the industry, among them the formation of the Society of British Theatre Lighting Designers (now the Association of Lighting Designers). Rebellato further notes that training plays an important part in 'professional identification' and provides a marker that one 'possesses formalised skills and a body of knowledge' (ibid.) that allow them professional status. These skills and knowledge were traditionally acquired through apprenticeships or by learning 'on the job', but the recent

proliferation of specialist design and technical theatre production courses (since the 1980s in design and production courses generally, and in the 2000s in lighting specifically), as well as increased job specialisation (e.g. lighting programmers), in the UK has meant that many lighting designers and technicians enter the industry following formal training. This is despite the widespread feeling among both workers and employers that ‘a degree-level qualification should not be a requirement [...] and that therefore apprenticeships could be a sensible route into the industry for many’ (Nordicity, 2017, p.43). The Association of Lighting Designers has attempted to redress this balance through its Lumière scheme, which gives an early-career lighting designer the opportunity to hone their skills as an assistant or associate lighting designer. While formal education is not a prerequisite for eligibility for the scheme, applicants must have ‘a minimum of one year’s experience working in the industry’ with ‘sufficient paid experience either as a freelance lighting designer/assistant, or as a lighting operator/technician/engineer in lighting design, or demonstrable transferrable skills’ (Association of Lighting Designers, n.d.). The requirements for this apprenticeship mean that it is demonstrably different from the kind of entry-level apprenticeships recommended in the Nordicity review, and particularly from those that traditionally characterised the industry in the past. Additionally, the Creative Apprenticeships programme, launched in 2008 in England, has attempted to redress the lack of diversity in the industry, enabling fairer access to jobs in the creative industries by supporting over 4,500 apprenticeships in the last ten years (Creative and Cultural Skills, n.d.).

Academic or vocational?

In the questionnaires and interviews conducted for this article, some of the educators pointed to a growing pressure to make their courses more ‘academic’ and, at the same time, provide enough practical opportunities for increasingly large (and sometimes unrealistically large) cohorts. Richmond and Sanders (2014) argue that the distinction – and often perceived opposition – between ‘academic’ and ‘vocational/technical’ courses, usually resulting from a top-down perception of value, is unhelpful. Indeed, they go further in their assessment of the latter term, noting that ‘vocational’ is often employed ‘in a derisory way, with the effect of marginalising and limiting the ways in which some modes of learning [...] might be positioned, conceptualised and realised’ (p.4). There also seems to be some differences in perception in the quality of university versus drama school courses, regardless of the course content or its emphasis. In the educators survey, when asked ‘How well do you feel your course as a whole prepares students for the industry after graduation in comparison to other courses?’, one senior lecturer replied, ‘Well, particularly for a course that is based in a university’ (E1). That they felt it necessary to qualify their answer in this way speaks to an implied, implicit attitude towards university courses as somehow inferior to drama schools or conservatoires,

indicative of a 'widespread belief that [...] there is a significant difference in the quality of training on the vocational [drama school/conservatoire] courses (which were deemed to be better) and the academic ones' (Nordicity, 2017, p.41). Echoing Richmond and Sanders' critique of the academic/vocational dichotomy, I would equally argue that the distinction is unhelpfully reductive and distracts from the fundamental, underlying issues I hope to touch on here.

This dichotomy – also reflected in the perceived differences between 'education' and 'training' noted below – is borne out in the friction between the expectations of educators and those of students, in part as a result of the growing number of degree courses, which are perceived by students to be of higher value (Nordicity, 2017, p.41). E6, a freelance lighting designer who teaches at both drama schools and universities, felt that 'that there is a decided lack of output from students [who] are studying at degree level – more projects, more written work, more sat examinations would go a long way to making the degrees worthwhile', though there is often resistance from students who see lighting as a purely vocational subject: 'The students would grumble about having to write in a certain style or present in a certain way, and a lot of the tutorials were about me going, "Yes, I know, but this is a degree"' (E7). While E7, also a 'teacher-practitioner' (Ashton, 2013, p.173), did admit that being a successful lighting designer or electrician was not dependent on the ability to write an essay, E6 argued that writing and communication skills were paramount in an industry in which freelancers (especially designers) are consistently judged on their ability to clearly, and often persuasively, articulate aesthetic intention, both verbally and in writing, to a variety of stakeholders – though the value and purpose of reflective writing, in particular, is perhaps not clear to students:

I think [writing] is helpful, but then perhaps [it] isn't explained how helpful it is at the time.

I think it's explained as a thing that you have to do but not necessarily why you have to do it and why it's helpful in a wider situation. (P14)

Equally, there seemed to be some difference in what was felt constituted formal and informal training by some of those completing the professional questionnaire. Of the five professional respondents who said they had not completed any formal training, three in fact had completed some form of industry training. These ranged from 'product-specific manufacturer training' (P1) and 'ABTT³ Bronze and Silver awards' (P2) to 'pyrotechnics, WYSIWYG⁴ and first aid training' (P5). The fact that this training was not delivered by educational institutions but, rather, industry bodies or manufacturers seems to have been the reason for its deemed 'informality', despite the ABTT awards

³ Association of British Theatre Technicians.

⁴ What You See Is What You Get, a computer-aided design program for lighting design programming and visualisation.

being accredited by the Royal Conservatoire of Scotland. These responses underlie significant assumptions among theatre professionals and students about the boundaries between, and relative value of, formal and informal learning and teaching, definitions of which are equally contested throughout pedagogy literature (see, for example, Colley et al., 2003, section 2).

Challenges

The difficulty of balancing classroom teaching with hands-on practical experience with large cohorts was noted by a few educators: 'With strong student numbers it is hard to fit everyone into every possible piece of industry opportunity while still running a robust course of learning that has good structure and not just pulling students from pillar to post. Unrealistically small cohort numbers would make this easier to manage' (E1). Several recent graduates also commented on the detrimental effect of larger cohorts. In an interview with P14, they commented that their course had, in four years, increased its yearly intake from 30 to 45 students. One result of this could be P15's observation that their 'course tried to cram too many different projects into 9 months which resulted in overwork and stress'. Maintaining the balance between cohort size, student support (academic, practical and pastoral) and access to state-of-the-art facilities and learning opportunities clearly puts educational institutions under constant pressure. A 2011 SkillsScene report warned about the difficulties faced by higher education providers in maintaining high-quality education in the face of public funding cuts: 'these courses are more costly to provide than HE courses in traditional academic subjects and cuts to arts and humanities teaching budgets put them under severe threat' (p.2).

While training courses are modelled on the processes of theatre-making that graduates will encounter upon entering the industry, there are a myriad of skills needed to do this effectively and efficiently. These are the skills that lighting professionals feel are most crucial to their success in the industry: 'things that we use every day as a freelance practitioner but have to self-discover along the way' (P28). Simply 'knowing about' (Conquergood, 2002, p.146) these aspects of the industry is not adequate and needs to be complemented through engagement with professional practice – 'another way of knowing that is grounded in active, intimate, hands-on participation and personal connection' (ibid.). As P5 notes, 'Although "best practice" should always be taught, students also need to have a dose of reality.' P28 added, 'All the skills learned [on my degree course] were relevant, but it did feel that there were huge chunks of knowledge that was [*sic*] obtained by working practically in the industry and not in the classroom – something I suspect is still common.' There are two potential issues that arise from these comments. The first is that there is seen to be a

disconnect between theory and practice, as if these were two exclusive parts of an opposing dichotomy, which many of the questionnaire respondents identified. The second is that professionals undervalue their own experience and what this brings to their practice: skills can be taught but experience cannot, as P28 notes above.

Many of the professionals stated that they would have preferred more 'real-world' training about the practicalities of the industry. The Nordicity review noted that there is a shortage in 'harder organisational skills, such as management, finance, accounting and marketing', skills that are 'increasingly needed by workers [...] [in a] sector shifting towards more freelance and casual work, whereby entrepreneurship becomes vital to one's career' (p.17). This was a common concern from both professionals and educators. Many professionals felt that 'the realities of the working environment' (P4) should be covered in education through 'more opportunities to discuss the job with professionals' (P2). It was generally noted that many professionals were unprepared for the actualities of 'being self employed, both from a financial and emotional point of view' (P8). In an industry in which most workers are self-employed freelancers (Nordicity, 2017, p.60; Creative and Cultural Skills, 2010, p.15), this puts early-career designers and technicians at a significant disadvantage. However, one educator I interviewed (P5) said they were attempting to introduce this knowledge into their curriculum via a three-hour seminar in the final year of the degree that addressed everything from professional behaviour and attitudes (though they were quick to note that this is embedded in the course throughout as well) to contract negotiation, union membership and tax returns, with the aim of bridging the gap between education and employment to prepare students for the realities of the industry.

Extracurricular knowledge

Many professional questionnaire respondents, upon reflection, wished that their courses had been more broadly based and included skills outside their immediate career destination. The responses tended towards two categories: cognate skills ('more electrical knowledge' (P6); 'more of the engineering and technical side' (P1); 'architectural, film or television lighting' (P28)), and the arts and humanities more broadly ('cross disciplinary education, script analysis and also art history' (P16); 'learning to read music' (P29); 'more art and music, photography' (P16)). This latter category resonates with comments made by Nick Moran, senior lecturer in production lighting and theatre lighting design at Central School of Speech and Drama in London, during a panel session on lighting education at the triennial Scandlight conference in 2018 in Malmö, Sweden. When discussing the

skills a student lighting designer needs to have in order to communicate with their collaborators, Moran said:

One of the key things we have to do is teach the lighting students how to communicate with directors. [...] What do you talk about with directors before the rehearsals, before you get into the theatre? Anything but lighting. Because lighting limits the conversation. [...] What you really want to know is how they see the piece, where are the important parts of the piece, what is the story of the piece, how is that piece evolving? And anything that you can talk about that informs you both about that. You can bring your own ideas about it too – you can inspire; it doesn't have to be a one-way conversation. But in order for that to happen you have to know about more than lighting, and that I think is absolutely key [...]. (Moran, 2018)

In terms of learning and teaching cognate skills, Belgian practitioner and educator Chris van Goethem advocates that 'instead of discrete technical training they need to be educated alongside all other theatre-makers' (Palmer, 2013, p.242). By 'they' Goethem is referring to lighting operators specifically, though this could easily apply to other lighting professionals and other members of the creative and production teams more widely. The Nordicity review notes that 'an effective workforce today requires a rounded skillset encompassing technical craft skills, organisational/entrepreneurial skills and soft skills' (2017, p.22). Students are entering the workforce with highly specialised skills, as noted above, perhaps at the expense of an overall knowledge of contemporary theatre-making practices; 'qualities such as imagination, problem solving, collaboration, research, communication are at least as important' (Farthing, 2012, p.7). This is echoed by one questionnaire respondent who felt their recently completed BA Hons drama school course could have been 'more relevant to theatre making today [and] more collaborative' (P7). One educator (E4) clearly addressed this issue:

[M]ost of the students know what skills they have, and that [they] lack experience in many areas. All of them have worked alongside professionals, and know what that means, in terms of attention to detail, work-rate and attitude. Hopefully they have the attitude of theatre or performance makers who specialise in lighting rather than lighting specialists, meaning they can contribute and have interests beyond the lighting department.

However, interestingly, only one of the professional respondents noted their course, a BA Hons at drama school, had actually done this: 'the course taught me more about being a theatre practitioner than a lighting designer' (P5).

This is symptomatic of a wider issue related to the compartmentalisation of theatre training as a result of specialisation, in direct contrast to what is happening in the industry – and, in particular, for those just starting out in their professional careers. More and more work is happening outside theatre buildings, in environments with flatter hierarchies (or even ostensible heterarchies), including tandem directing teams and collectives who devise productions together (as demonstrated by the case studies in Mermikides and Smart (2010)). Radosavljević (2013) refers to ‘deprofessionalisation’ in companies such as these – not a lack of professionalism, but an unwillingness of company members to adhere to ‘traditional’ roles, taking instead an interdisciplinary approach to collaboration in which they might fulfil multiple roles, at least initially, although specialisms may start to emerge at later stages in the process (see Mermikides’ chapter on theatre company Shunt in Mermikides and Smart (2010), for example).

Job ready?

Certainly, one of the aims of pre-career education in lighting should be to allow students the time and space to, as Heiner Goebbels (2015) advocates, ‘develop their own aesthetics’ (p.77). This includes the opportunity to garner ‘feedback and criticism of our practical work from both peers and lecturers’ (P19) and the ‘freedom to make mistakes and learn from them in a safe environment’ (P5). As Goebbels (2015) points out, ‘The future of the performing arts is – I hope – unpredictable’ and educators need to ‘prepare our students for this complex reality’ (p.77). In some ways, the industry is in a constant state of change and invites experimentation; in others, practitioners find themselves at odds with the ‘inertia of institutions’ (ibid., p.79). Given this, negotiating the balance between providing opportunities and space for ‘independent thought provoking work’ (E3) and ‘soft/transferable skills and a wide experience of practice in many disciplines’ particularly for graduates who ‘go into other industries or career pathways that were not always their core focus while on the course’ (E1) can be difficult.

However, it was widely felt by professional survey respondents that both ‘academic’ and ‘vocational’ courses should mainly focus on preparing students for the workplace after graduation, outside subject-specific knowledge. When asked what knowledge they felt could have been included during their course, many cited issues related to self-employment (P1, P2, P5, P6, P7, P8, P14, P19, P23, P28) but also the opportunity to obtain ““real-world” certificates, such as PAT testing training, harness training, IPAF⁵ and rigging certificates’ (P14; P6, P7, P19 and P28 also mentioned similar

⁵ International Powered Access Federation, which certifies training in powered access products such as mobile elevating work platforms (MEWPs).

skills-based training and certification). Some educators agreed, encouraging their students to engage with 'short courses leading to industry recognised qualifications' (E4). However, it is generally felt that 'even on vocational courses, students are often not being given a thorough grounding in the basics of working in theatre, with training often aimed at too senior a career level' (Nordicity, 2017, p.41). Following formal education, 'graduates believe that they can enter [the industry] at a higher level than they really should. [...] Those who have degrees sometimes feel that they don't need to be a trainee or an ASM' (Farthing, 2012, p.25).

While 'there is a concern from the industry that graduates are not "job-ready"' (Nordicity, 2017, p.47), there is equally some concern from educational institutions that perhaps it is employers who are not 'graduate ready'. John Brooks, the former vice-chancellor at Manchester Metropolitan University, argued that graduates with an 'independent, autonomous approach to learning and their understanding of technology, frankly scare employers' (Morgan, 2013). The emphasis on employability as a key metric for the 'success' of a course no doubt contributes to this issue of responsibility. In fact, 'the performing arts sector [i.e. employers] has tended not to influence provision in further and higher education, as this has been perceived by the sector as being determined by student interest in taking courses rather than by employment needs' (Creative and Cultural Skills, 2010, p.25). Sarah Steed, in a recent *Guardian* article, clearly articulates the effects of this misalignment between student interest and employer needs:

Politicians complain of a skills gap, but graduates face an "experience gap" – with many employers preferring to recruit young people who have spent a couple of years in the workplace rather than raw recruitments from university. Yet graduates have often picked up at university many of the soft skills that employers are looking for in more experienced recruits – they just don't know it yet. (Steed, 2018, n.p.)

There is a further tension and potential disconnect between courses that provide very specialised technical or design training and the types of companies in which recent graduates will most likely find themselves working (Creative and Cultural Skills, 2010; Nordicity, 2017). The 2017 Nordicity review of the UK's offstage workforce noted this discrepancy in training versus the reality of employment. One interviewee stated:

As a generalisation, there's an awful lot of students that I've spoken to recently that are really focused on lighting design. And I think 'good luck with that one', because there are thousands of lighting designers out there. It might be great to do that, but you need to get

the basics, because on your first day in the theatre you're not going to be doing the lighting design. Not enough are getting the basics (p.42).

This feeling is echoed by one of the questionnaire respondents, a lighting designer (P28) who also guest lectures:

I am also not sure that design can/should be taught – certainly not in the sense that people are allowed to qualify 'as designers' – leaving tertiary studies as a multi-skilled and disciplined theatre practitioner would be a far healthier approach than sending out hundreds of 'designers'.

On the technical side, another survey respondent (P19), now working as a technical manager, agrees: 'practical training needs to be to a much higher standard. I am still seeing peers coming out of formal training that are completely unable to wire a plug'. This raises questions about the purpose of theatre lighting training more generally. There is clearly the need for training to replicate professional practices to fulfil the needs of the industry, but there is also the need to educate students to be adaptable and flexible practitioners with a range of collaborative (in addition to technical and practical) skills. The marketisation of higher education and the precarity of the industry are clear influences here: while most lighting courses boast very high rates of graduate employment, stagnating wages, particularly in theatre, and less than desirable working conditions mean that graduates may look to related industries for employment.

Continuing professional development

With the nomadicity of a primarily freelance industry such as lighting, there comes a fragmentation of the workforce. Lighting designers very rarely work together and, in fact, are often in competition with each other for employment. Lighting designers have little chance to learn from each other, and rarely is constructive feedback given on their work or the process by their fellow collaborators; there is no time for what lighting designer Rick Fisher calls 'post-design rationalisation' (quoted in Palmer, 2013, p.255). Given the lack of research and development time afforded to most productions, alongside squeezed technical rehearsal schedules, lighting professionals also have no time or space for play or experimentation. There is a related issue here as well: that of the lack of continuing professional development (CPD) opportunities for those working in lighting. As demonstrated above, significant efforts are expended on pre-career training – whether academic, vocational, specialised or wide-ranging – but once graduates enter the industry, there is very little opportunity for continued training in any structured form. According to a 2018 study by Creative and Cultural Skills, 'a lack of workforce training and continuous professional development are contributing to skills gaps

and shortages' (p.10) in the creative industries. This affects early- and mid-career lighting professionals, in particular those who are freelance and may not be in a position to fund these opportunities: 'It means not only are you not earning whilst on those courses, you are also making a loss by paying for them' (P2). Freelance workers become significantly disadvantaged in terms of continuing their professional development: training courses must be self-funded, as there is little financial incentive for employers to provide training to short-term and/or casual staff. There are other reasons too: 'inaccessibility of provision', 'lack of flexibility', 'lack of personal contacts and "real-world" opportunities', 'lack of supportive and understanding environment amongst peers', 'lack of information' about CPD provision, and 'a need for more practical skill training in preparation for the workplace' (Dann and Cass, 2008, p.38).

In order to keep up with an industry in which the technology is constantly changing, lighting designers and other freelance lighting professionals must seek out CPD opportunities 'often through networks and contacts, favouring those who already have access to those networks and contacts' (Nordicity, 2017, p.63), as noted above. Without these, and perhaps due to the lack of a structured system of CPD, some freelance professionals 'have not undertaken any CPD [because] I don't know where to find it' (P1). Even when CPD opportunities are available from employers, these tend to be limited to in-house staff. According to P19, 'I have found that the majority of employers that offer CPD will only offer the training to full-time members of staff and not freelancers working with them.' Informal, ad hoc CPD currently comes in the form of trade shows, seminars and showcases (for example, the annual New Technologies Showcase); most of these are free to attend, making them accessible for workers at all levels, as well as students. Formal CPD courses do exist, for instance, from the ABTT or through lighting equipment or console manufacturers, but there is a distinct lack of formalised training programmes and/or progression and no formal mentoring or feedback mechanism in place, which would especially benefit early- and mid-career designers, programmers and electricians.

Further discussion

This article has addressed several potential tensions in the current provision of lighting education in the UK. As a starting point, the current distinctions between 'academic' and 'vocational' training are, at best, confusing and, at worst, unhelpful – particularly given the move of some 'drama schools' to higher education institutions with the power to now award degrees rather than diplomas, for instance, combining skills-based training with theoretical study; 'the power to confer degrees no longer resides solely with traditional universities' (Moon, 2017). The variation in focus across

programmes and providers renders these academic/vocational distinctions, and the perceived value judgements that come with them, obsolete. Instead, 'very bright, talented students are attracted to programs that combine intellectual rigor with artistic excellence that is critically engaged, where they do not have to banish their artistic spirit in order to become a critical thinker, or repress their intellectual self or political passion to explore their artistic side' (Conquergood, 2002, p.153). Or, as Goebels (2015) puts it, 'I assumed there would be three types of students: theoreticians, technicians and artists; but I was completely wrong: the best of them unite all three competences in themselves' (p.95). 'Lighting is equal parts technical and artistic' (E7), and possessing a combination of these skills is critical: an appreciation and understanding of the craft and skill of other members of the lighting and wider production teams will help to create more empathetic, adaptable and flexible theatre-makers and collaborators. Using a recent example, amendments to the EU ecodesign regulations⁶ are currently being negotiated, and these have the potential to threaten the entire lighting industry as they are written. Understanding the proposed regulations and their potential implications, being able to concisely and clearly disseminate these to industry and non-industry stakeholders, and being able to articulate the effect these regulations will have, taking into account practical, financial, technological and artistic viewpoints, requires 'the skills that are likely to be in greater demand, including interpersonal skills, higher-order cognitive skills, and systems skills' (Bakhshi et al., 2017, p.7).

The development of specialised courses additionally seems to be contributing to confusion among students who then move into the industry upon graduation. Paradoxically, 'the development of both qualifications and training opportunities has been driven by student demand rather than industry need' (Farthing, 2012, p.8), leading to 'a large pool of "qualified" potential recruits who do not have the specific "associate professional and technical" skills' (Creative and Cultural Skills, 2010, p.18) needed by employers. This leads to early- and mid-career lighting professionals then being required, either by a full-time employer or in order to expand their employability prospects as a freelancer, to fill this skills gap with specific courses that are designed to meet employer needs. Crucially, then, it seems that methods should be devised to allow employers more input on theatre lighting education in order to better meet the demands of the workplace – whether this includes specific skills training or more general personal development courses that address the realities of the industry – shifting the burden from precariously employed individuals to institutions. However, this should not come at the expense of a solid grounding in the basics, particularly of the wider industry, including 'a broader

⁶ For more information, and the industry's response so far, see <https://www.ald.org.uk/resources/savestagelighting>.

range of classes that covers more related skills – music reading for designers, work in all departments, stage management for designers, practical life skills courses, presentations skills courses, project management and production management courses’ (E6).

These three areas of concern could perhaps be addressed by more focus on and support for what Ashton (2013) refers to as ‘teacher-practitioners’ (p.172). E7 agreed, describing them as ‘theatre practitioners who happen to teach’ rather than former practitioners who find they ‘get stuck’ (E7) in teaching roles and therefore lose their immediate connection with the industry. P14 echoed this sentiment: ‘I’d like to see lecturers more in touch with the current working practices outside their establishments – even if this mean[s] bringing more external staff in to give students an idea of how a normal production process may work.’ Ashton is an advocate of the ‘teacher-practitioner’ in the creative/cultural industries for several reasons: they bring ‘personal experiences and insights’ that ‘can cement the credibility of their suggestions on the career trajectories’ (p.183) students might be considering; their industry experience may ‘resonate for students more than [...] overtly academic contextual/critical studies’ (p.185); and they are ‘distinctly positioned to extend the debate’ around workforce issues (p.189). There are benefits for the teacher-practitioners themselves as well. Respondents to Ashton’s survey identified career stability, the space to reflect on their professional practice through teaching, and the opportunity to pass on their industry knowledge as motivating factors for moving into higher education. However, a report by Angela Clews (2009) warns that managing these two professional identities can be difficult as ‘teaching context impinges on practice’ and individuals may ‘need to keep the two practices separate in order to manage’ (p.12). She recommends that higher education institutions could provide teacher-practitioners with bespoke CPD, support networks, and a way to ‘develop the tools and discourse to advocate for their practice’ (p.13) – suggestions that could equally be applied to professional practice.

Given the particularly rapid pace of change in technology, for instance, E7 also felt it would also make sense to actively encourage freelance careers for lecturers across all levels of theatre lighting education. I would further suggest that those working in education be encouraged to take ‘practice leave’, opportunities to engage in professional practice without the (external) pressures that come with ‘research leave’; this reciprocal arrangement could be beneficial to both professional practice and higher education.

There are further issues within education to be addressed concerning, for instance, diversity in student recruitment (including gender, race and socioeconomic status); the recently launched Stage

Sight (www.stagesight.org), led by lighting designer Prema Mehta, has been formed to lead these conversations between individuals and institutions. I intend this article to be a starting point only and hope that it opens up further discussion within theatre lighting pedagogy and the pedagogy of theatre design and production more generally.

Acknowledgements

The author wishes to thank members of the Performance Training, Preparation and Pedagogy research group at the University of Leeds, as well as Dr Scott Palmer, Dr Joslin McKinney and Dr Rachel Hann, for their feedback on a very early version of this article. Thanks also to Dr Aylwyn Walsh for her guidance on ethical matters, to the theatre lighting professionals and educators who completed a questionnaire and/or consented to an interview for this article, and to the two anonymous reviewers for their constructive feedback.

Declaration of interest

The author has no conflicts of interest to declare. This article contains material from the author's current PhD thesis, *The Language of Light: How Lighting Designers Use Language and Exercise Agency in Creative Collaboration*, to be submitted at the end of 2019. Portions of this article have previously been published on the *Theatre, Dance and Performance Training* journal blog (Zezulka, 2018).

References

- Ashton, Daniel (2013) Industry practitioners in higher education: Values, identities and cultural work. In Daniel Ashton and Catriona Noonan, eds. *Cultural Work and Higher Education*. Basingstoke: Palgrave Macmillan.
- Association of Lighting Designers (n.d.) *Recruitment for 2019 Lumiere Scheme* [online]. Available at <https://www.ald.org.uk/the-ald-lumiere-scheme/recruitment-for-2019-lumiere-scheme>. Accessed 9 July 2019.
- Bakhshi, Hasan, Jonathan Downing, Michael Osborne, and Philippe Schneider (2017) *The Future of Skills: Employment in 2030*. London: Pearson and Nesta.
- Bakhshi, Hasan and Luise Yang (2018) *Creativity and the Future of Work*. London: Creative Industries Federation and Nesta.
- Ball, Linda, Emma Pollard and Nick Stanley (2010) *Creative Graduates Creative Futures*. London: Creative Graduates Creative Futures Higher Education Partnership and the Institute for Employment Studies.
- Caldwell, John Thornton (2008) *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. London: Duke University Press.
- Clews, Angela (2009) *10by10, A Research Report on the Teaching Practitioner*. Brighton: University of Brighton and ADM-HEA.
- Clews, David and Steve Mallinder (2010) *Looking Out: Effective Engagements with Cultural and Creative Enterprise*. Brighton: University of Brighton and ADM-HEA.
- Colley, Helen, Phil Hodgkinson, and Janice Malcolm (2003) *Informality and Formality in Learning: A Report for the Learning and Skills Research Centre*. London: LSRC.
- Conquergood, Dwight (2002) Performance studies: Interventions and radical research. *The Drama Review* 46(2), pp.145–155.
- Creative and Cultural Skills (n.d.) *Our work with apprenticeships* [online]. Available at <https://ccskills.org.uk/apprenticeships/our-work>. Accessed 20 August 2018.
- Creative and Cultural Skills (2010) *The Performing Arts Blueprint: An Analysis of the Skills Needs of the Performing Arts Sector in the UK* [online]. Available at: <http://creative-blueprint.co.uk/library/item/the-performing-arts-blueprint-an-analysis-of-the-skills-needs-of-the-perfor>. Accessed 26 August 2018.
- Creative and Cultural Skills (2018) *Building a Creative Nation: Current and Future Skills Needs* [online]. Available at https://ccskills.org.uk/downloads/Building_a_Creative_Nation_-_Current_and_Future_Skills_Needs.pdf. Accessed 27 August 2018.
- Dann, Lance and Karen Cass (2008) *Continuing Professional Development for the Arts and Creative Industries: Literature Review*. London: National Arts Learning Network.
- DCMS (2008) *Creative Britain: New Talents for the New Economy*. London: DCMS.
- Farthing, Anna (2012) *Mapping Technical Theatre Training*. York: Higher Education Academy.
- Goebbels, Heiner (2015) *The Aesthetics of Absence*. London: Routledge.
- Masso, Giverny (2018) Theatre company announces research project to examine lack of diverse lighting designers. *The Stage* [online]. Available at <https://www.thestage.co.uk/news/2018/theatre-company-announces-research-project-examine-lack-diverse-lighting-designers>. Accessed 8 September 2018.
- Mermikides, Alex and Jackie Smart (2010) *Devising in Process*. Basingstoke: Palgrave Macmillan.
- Moon, Christopher J (2017) *95 Theses for Reforming Higher Education* [online]. Available at <https://www.heacademy.ac.uk/knowledge-hub/95-theses-reforming-higher-education-are-heis-catalysts-sustainable-society>. Accessed 8 September 2018.
- Moran, Nick (2018) Roundtable discussion on training for lighting designers. *Scandlight*, 6 June, Malmö, Sweden.
- Morgan, John (2013) Manchester Met v-c hits back on graduate employment. *Times Higher Education* [online]. Available at <https://www.timeshighereducation.com/home/manchester-met-v-c-hits-back-on-graduate-employment/2007814.article>. Accessed 3 September 2018.

- Nordicity (2017) *Workforce Review of the UK Offstage Theatre and Performing Arts Sector*. London: UK Theatre and Society of London Theatres.
- Palmer, Scott (2013) *Light: Readings in Theatre Practice*. Basingstoke: Palgrave Macmillan.
- Radosavljević, Duška (2013) *Theatre-Making: Interplay Between Text and Performance in the 21st Century*. Basingstoke: Palgrave Macmillan.
- Rebellato, Dan (1999) *1956 and All that: The Making of Modern British Drama*. London and New York: Routledge.
- Richmond, Harriet and Richard David Sanders (2014) *Mickey Mouse Learning: Discourses of the Vocational/Technical in Higher Education* [online]. Available at <https://www.researchgate.net/publication/264858674>. Accessed 21 August 2018.
- Shepherd, Simon and Mick Wallis (2004) *Drama/Theatre/Performance*. London: Routledge.
- SkillsScene (2011) *Statement of Current Skills Needs* [online]. Available at <https://bit.ly/2LnymbS>. Accessed 16 August 2018.
- Steed, Sarah (2018) Too many graduates are mismatched to their jobs. What's going wrong? *The Guardian* [online]. Available at <https://www.theguardian.com/higher-education-network/2018/jan/25/too-many-graduates-are-mismatched-to-their-jobs-whats-going-wrong>. Accessed 29 August 2018.
- Zezulka, Kelli (2012) A history of lighting education. *Focus*. October/November 2012, pp.23–26.
- Zezulka, Kelli (2018) Challenging the challenges facing c21st theatre training: Lighting, training and collaboration. *Theatre, Dance and Performance Training Journal blog* [online]. Available at <http://theatredanceperformancetraining.org/2018/06/challenging-the-challenges-facing-c21st-theatre-training-lighting-training-and-collaboration>. Accessed 14 August 2018.