



How discipline shapes the meaning of value creation in higher education; implications for enterprise, entrepreneurship and employability

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Abstract

This paper sets out the importance of teaching contextualized understandings of value within different disciplinary contexts in order to enhance employability and to foster greater levels of engagement with enterprise and entrepreneurship education. Key research has recognised the broader benefits of enterprise and entrepreneurship education, including that of developing graduate employability. Yet enterprise and entrepreneurship may not feel comfortable or relevant to students (Enterprise Educators UK (EEUK), 2012; Henry, 2013). It has been identified that students can better relate to enterprise and entrepreneurship when it is contextualised in professions, sectors and communities of practice, moving away from a focus on venture creation and start up (Gibb, 2005). We argue that taking an approach which is explicitly based on value creation is a crucial driver of student engagement with enterprise and entrepreneurship education. This needs to be based in students' individual values, embedded in their disciplines, and related to the communities of practice which as graduates they will go on to be part of. When grounded in the creation of value at an individual, disciplinary, and societal level, enterprise and entrepreneurship education can appeal to a wider constituency of students. In this paper, we discuss how value creation is understood in three diverse academic disciplines, Business, Biomedical Science and Music. Building on key research and drawing on our extensive practice as educators, we argue that explicitly foregrounding understandings of value within our different disciplinary contexts and developing appropriately contextualized, experiential forms of value creation-based pedagogy, is key to student engagement and enhances graduate employability.

Keywords

Employability; enterprise; entrepreneurship; enterprise education; value creation

Introduction

This paper is written collaboratively by three enterprise and entrepreneurship educators based in three different schools of Newcastle University. Dr Lucy Hatt is based in Newcastle University Business School, Dr Jane Nolan is based in the Newcastle University School of Arts and Cultures and Dr Carys Watts is based in the School of Biomedical, Nutritional and Sport Sciences.

As educational practitioners teaching enterprise and entrepreneurship in diverse disciplinary fields, in this paper we explore how the conception of value, and its creation is significant in our respective disciplinary contexts. Furthermore, we discuss the need to contextualize understandings of value and communicate them in ways which are congruent with students' personal values and their disciplines, in order to engage them. We also recognize the relationship between enterprise and entrepreneurship education and developing graduate employability in a fast-changing world, which makes engagement with these forms of education potentially valuable to students across all disciplines. The paper explores the question of how individual values inform value creation, which continues to haunt management and organizational research (Donaldson, 2021) and how a value creation approach can underpin effective pedagogy. This conceptual paper does not claim to make universal statements about entrepreneurship, enterprise, or the disciplinary areas under consideration, but draws on influential scholarship and our practice as enterprise and entrepreneurship educators. It is intended as a basis for further research and dialogue.

Defining entrepreneurship and enterprise education, and its relationship to employability

In this paper, 'entrepreneurship education' is used as a collective term for entrepreneurship and enterprise education and defined in accordance with the Quality Assurance Agency (QAA) Enterprise and Entrepreneurship Education guidance (2018):

Enterprise is defined here as the generation and application of ideas, which are set within practical situations during a project or undertaking. This is a generic concept that can be applied across all areas of education and professional life. It combines creativity, originality, initiative, idea generation, design thinking, adaptability and reflexivity with problem identification, problem solving, innovation, expression, communication, and practical action.

Entrepreneurship Education is defined as the application of enterprise behaviours, attributes and competencies into the creation of cultural, social or economic value. This can, but does not exclusively, lead to venture creation. Entrepreneurship applies to both individuals and groups (teams or organisations), and it refers to value creation in the private, public and third sectors, and in any hybrid combination of the three.

(QAA, 2018, p. 7)

The understanding in this paper, in line with this QAA guidance, is that the aims of enterprise and entrepreneurial education are interlinked, and are much broader than purely economic, business-related outcomes. This enables the concept of entrepreneurship to be understood in a more pluralistic way, and as a way of developing knowledge and competences that enable people to function effectively in a range of contexts. It can also be understood as a way to enhance employability, especially in uncertain and changing times, whether in employment or self-employment (Gibb, 2002b, 2000).

The challenges to achieving student engagement

It has long been recognised in the literature (Enterprise Educators UK (EEUK), 2012; Henry, 2013) that terms like enterprise and entrepreneurship are likely to have different meanings for individual students, who will have different interests and understandings; for example, they might be attracted by the possibility of freelancing or innovation. However, it is also acknowledged that others may find the idea of enterprise and entrepreneurship uncomfortable, and 'will not self-select to take part' or might even be 'actively resistant' (EEUK, 2012, p. 2). Professor Allan Gibb proposed a shift away from a focus on start-up and venture creation to a different vision of entrepreneurial life that students can

relate to, contextualised in different professions and sectors, in communities of practice and with a connection to ‘how things are actually done’ (Gibb, 2005, p. 5) using a ‘wide range of innovative pedagogies’ (Gibb, 2005, p. 7). Gibb’s work included a significant focus on the lifelong learning aspects of enterprise and entrepreneurship education and the benefits of this, including enhancing employability in an increasingly uncertain world. His work has been at the heart of subsequent policy direction, including the QAA guidance (QAA, 2012, 2018), which has recognised the broader benefits of enterprise and entrepreneurship education and called for all students to have the opportunity to engage with it.

Value-creation as a pedagogical approach

Taking an approach which is specifically and explicitly based on value creation is a crucial driver of student engagement with enterprise and entrepreneurship education. This approach needs to be based in students’ individual values, embedded in their disciplines and related to the future communities of practice which as graduates they will go on to be part of. The QAA guidance (QAA, 2018, p. 16 Figure 3) recognises that motivation and understanding of value created is an aspect of enterprise and entrepreneurial learning, though this is framed in terms of outcomes rather than congruence with individual’s values and is not further explored. We argue that this value-based approach needs to be foregrounded and given greater emphasis in pedagogy. Adopting a broader definition of enterprise and entrepreneurship education (including lifelong learning, employability, preparation for careers and for uncertain futures) which is grounded in the creation of value at an individual, disciplinary, and societal level, has relevance to, and therefore can appeal to a wider constituency of students, than an economically based vision of an enterprising or entrepreneurial life.

Indeed, very extensive longitudinal research by Lackéus (2020), which investigated the effectiveness of different pedagogical approaches at thirty-five sites over a period of seven years, found that experiential value creation pedagogy had strong effects on entrepreneurial competences, as well as on student motivation, knowledge and skills acquisition:

Viewing entrepreneurship as new value creation is [...] both a broader and more learning-oriented definition of entrepreneurship than more established organisation creation or opportunity creation definitions.

(Lackéus, 2020, p. 940)

This research found that learning to create something of value for others helps to mitigate neoliberal tendencies and represents an altruistic and relational turn in entrepreneurship education. Lackéus (2020) argues that learning thrives on emotion, and significant, deeper learning can come from interaction with value creation in the outside world, drawing on motivations to make a difference. This paper argues that a value-based pedagogical approach is effective – however the understanding of value needs to be grounded in students’ disciplinary context and communities of practice, thus enabling educators to overcome any uncomfortable stereotypes and perceptions on the part of students and engage them.

Consideration of the effectiveness of value-based education and its evaluation

According to Lovat et al. (2011), value-based education can have positive impacts on students’ academic achievement, social skills, moral reasoning, self-esteem, and resilience. However, evaluating the effectiveness of any educational approach including value-based education, is not a straightforward task, as it involves multiple dimensions and indicators that are not easily quantifiable or comparable.

Herodotou et al. (2019) propose a model consisting of five components for selecting ‘pedagogies of the future’, the implication being that this framework could also serve as a means to evaluate the

effectiveness of pedagogical approaches. These five components are relevance to effective educational theories, research evidence about the proposed pedagogies, relation to the development of twenty-first century skills, innovative aspects of pedagogy and the level of adoption in educational practice. They go on to suggest a means to measure effectiveness of each of the framework dimensions using a range of evidence categorised according to strength (John and McNeal, 2017) from practitioner wisdom and expert opinion, qualitative and quantitative case studies, qualitative and quantitative cohort studies, meta-analyses and ultimately systematic reviews.

Given value creation approaches are fairly recent, such evidence of their effectiveness is scant or non-existent. However, there are many arguments that have a logical appeal and point to the likely emergence of such evidence in the future.

Defining value creation as the application of existing competencies to create something, preferably novel, of value to at least one external stakeholder, Lackéus et al. (2016) have proposed value creation pedagogy as a means to bridge the gap between traditional and progressive entrepreneurship education. We argue here that value creation approaches can be used widely, not just for those interested in entrepreneurship and venture creation, but also for anyone who may wish to develop their entrepreneurial/enterprising skills. Value creation pedagogies can be a useful stepping stone involving students in constructivist experiential learning, reflection, and learning 'by' and 'through' doing (Morris et al., 2012).

The entrepreneurial process requires opportunity discovery and value creation (Fayolle, 2011) and value creation can be economic, social, cultural, ecological or emotional (Hindle, 2010). Others have defined entrepreneurship as acting upon opportunities and ideas and transforming them into value for others (Moberg et al., 2013). This new emphasis on value creation has been gaining traction (Lackéus and Williams Middleton, 2018) and others go so far as to argue that value creation is a vital competency for all students (Aldianto et al., 2018).

In value creation pedagogy, students interact with the environment, and there is less focus on venture creation and neoliberal principles (Lackéus, 2016). By allowing students to construct their own learning and meaning (Mueller & Anderson, 2014) the perceptual link between learning and applying knowledge in practice is reduced (Bell, 2016). Experiential learning can take many forms and offers an active and immersive environment (Feinstein et al., 2022). The associated authentic experiences can promote deeper learning, encourage engagement, and effectively prepare students (Macht & Ball, 2016). As an authentic experiential opportunity, students learn by doing in value creation pedagogy and engage in the entrepreneurial process to identify opportunities and create value for stakeholders. Student feedback (Bell, 2022) suggests that they find value creation pedagogy both challenging and interesting. It develops entrepreneurial behaviours and competences within a social setting, emphasising both individual and social components and widening its student applicability.

Dispelling the myths and uncomfortable stereotypes

When considering value and value creation in the context of enterprise and entrepreneurship education, it is important to recognise that entrepreneurship has become part of popular culture and entertainment, and that myths and stereotypes have been created in the media. Television programmes such as *Dragons' Den* and *the Apprentice*, with lionized individuals such as Elon Musk and Alan Sugar, or earlier UK television comedy caricatures such as *Del Boy* in *Only Fools and Horses* fuelling popular discourse. Entrepreneurship has been associated with heroic individualist models, set in the context of neoliberal ideology. A number of scholars have argued for adopting a much broader understanding of entrepreneurship than is suggested by these stereotypes (Anderson, Dodd, & Jack, 2012; Gibb, 2000, 2002a, 2005; Giddens, 2000; Hjorth & Steyaert, 2003; Steyaert, 2007).

Gibb argues that entrepreneurship should be seen as, 'sets of behaviours, attributes and skills that allow individuals and groups to create change and innovation, cope with and even enjoy higher levels

of uncertainty and complexity as a means of achieving personal fulfilment,' (Gibb, 2000, p. 3) and should not be understood simply as a function of business activity. Hjorth and Steyaert (2003) identify the possibility of having multiple versions of entrepreneurship, and that entrepreneurship can and must move beyond the economic, away from dominant readings and models. This involves participation in and transformation of the discourses to articulate what might currently be silent. Giddens (2000, p. 75) has identified that 'social and civic entrepreneurs are just as important as those working directly in a market context, since the same drive and creativity are needed in the public sphere, and in civil society, as in the economic sphere.' However, Hjorth and Steyaert (2003) argue that there is a need to extend this even further – regarding entrepreneurship in a very broad sense, far beyond the economic sphere, to the social, cultural, voluntary, political, civic and ecological. There is a strong focus on creativity in entrepreneurship and this can make it more widely relevant. They also argue that the neoliberal discourse of an enterprise culture, within which rational and informed consumers make choices within the economic sphere, is far too limited a view. There is a need to 'invent new ways of speaking about the entrepreneurial' (Hjorth & Steyaert, 2003, p. 299).

Steyaert (2007, p. 453) uses the verb 'entrepreneuring' to capture it as an emergent and creative process. According to Anderson et al. (2012), entrepreneurship is a complex adaptive system which is dynamic, interconnected, and co-produced, involving making connections and developing relationships. It is not purely an economic, individualised act, but a process that is embedded in, and draws from society. The concept of entrepreneurship is socially constructed and means different things to different people. Given that language is the way in which those meanings and understandings are constructed, we will go on to argue that the concept of value requires interpretation and translation within different disciplinary contexts. Therefore, it is important for enterprise and entrepreneurship educators to define value creation and use value creation pedagogy in ways which are congruent with personal values, within a discipline and within the communities of practice which students can identify with.

Moving away from perceptions about rational economic actors to value creating actors

Value creation from enterprise and entrepreneurship tends to be framed economically – as is graduate employability, which is measured in terms of levels of salary achieved through a graduate job. As UK academics, we are conscious of the impact a neoliberal approach has had on how knowledge is seen, and value is conceived. In a culture where everything needs to be 'auditable', only things that can be counted, 'count', and 'value' no longer encapsulates 'values.' If knowledge becomes defined almost exclusively as explicit, possess-able, manageable, and assessable the risk is that the link to intrinsic good and the fulfilment of personal values becomes lost. If knowledge (and value) exist purely as outwardly focussed and external to individuals, forms of knowledge or value that are more conceptual, tacit, personal, inward-focused, slippery, and less easily tamed risk extinction by being relegated or ignored entirely (Collini, 2012). It is particularly important in entrepreneurship education that a sense of meaningfulness and a rationale for creativity and practice are retained when there is increasing pressure to produce measurable and improving outputs and performances.

The theories and technologies of neoliberalism assume that the enterprising consumers and 'ideal subjects' of Margaret Thatcher's enterprise culture (Thatcher, 1984) are being created; yet, as Kipnis (2008) argues, the articulation of those subjects does not mean they are actually produced. The extent to which this is the case is recognised as being under-examined (Kipnis, 2007; Winkler-Reid, 2017). It is important to write in the complexities of lived experience to create a more nuanced view than is presented by the overarching political project of neoliberalism, in order to gain insights into what motivates people in their thinking and decision-making (Nolan, 2020; Winkler-Reid, 2017). People are not simply rational economic actors, driven by the over-arching political systems of neoliberalism and consumerism, and the creation of 'ideal subjects' but, instead, by their values and beliefs in the day

to day (Kipnis, 2007, 2008; Winkler-Reid, 2017). In this context, the importance of teachers who are motivated to develop their students' capacity for critical and cultural enquiry and a sense of identity as members of a community of practice has been identified in scholarship (Knights, 2005, p. 48).

A pedagogy where learners are regarded as 'Value Creating Actors' which is focused on meaningful value creation and making a difference in the world, is likely to be more encouraging to engagement than one which considers learners as 'Rational Economic Actors' focused on purely economic outcomes. Though ultimately, where meaning is made, where creative solutions are developed and where wicked problems are addressed, foundations are laid for future organizational creation (Kawasaki, 2004), or for societal change, or for employment.

Emphasizing personal values and intrinsic value as significant for engaging students with enterprise and entrepreneurship education

People are not simply the 'ideal subjects' or the rational economic actors of neoliberal policy thinking, motivated by economic gain and instrumentalism; it is important to consider the role of personal values and intrinsic motivations in value creation. The link between personal values and instrumental value is connected to the idea of agent-relative value. This is attractive in entrepreneurship too, because it supports the view that each entrepreneur (agent) ought always to do what will bring about the results that are best-relative-to themselves. In creating idiosyncratic value for others, they are also creating idiosyncratic value for themselves. If the term value here is defined to include intrinsic value derived from the fulfilment of personal values, then we are approaching a definition of responsible entrepreneurship. Agents must deliberate about which specific intrinsic values are relevant to their actions for value to be created that is meaningful to them. According to Donaldson (2021), underlying values must be at stake in the process whereby intrinsic value is created. Exchanges of goods and services that realize and create value can create both intrinsic value and extrinsic (instrumental) value. We explore how an understanding of the role of the entrepreneur or agent changes when value-creating forms of enterprise, including individual creative practice are conceptualized as ways in which, 'stakeholders are engaged in a joint and cooperative enterprise of creating value for each other' (Freeman et al., 2007, p. 6). We argue that the recognition and surfacing of these issues within disciplinary contexts, and the use of appropriate experiential pedagogies, supports greater engagement by students in enterprise and entrepreneurial education, which in turn supports employability development.

Extending the exchange-based view of entrepreneurship to include the fulfilment of personal values

Value can be regarded as the outcome of a process and is value *for someone*. Value Theory (Schroeder, 2021) attempts to specify in some general way what counts and to whom it counts. There is the thing (object) that is being valued, and the beneficiaries of the value. Value theory can be useful whenever there is an evaluative aspect to a phenomenon. Its application is likely to be particularly useful in enterprise/ entrepreneurship given the subjective nature of 'success.'

According to the exchange-based view of entrepreneurship, all value is created or realized through the process of exchange. This paper proposes that value is created or realized *or fulfilled* in this exchange which extends to include the fulfilment of personal values. This perspective extends the more philosophical axiological view of value which is primarily concerned with classifying what things are good, and how good they are (Schroeder, 2021) not necessarily involving any exchange.

A significant distinction needs to be made between the product or service, the artefact, and the act of exchanging the product, service, or artefact. The value is created in the act of exchange and is not inherent in the artefact. This is true even when the artefact can be argued as having intrinsic value, it

must be possible to realize the value from the exchange. Water itself has no inherent value, without exchange. Even to take a drink of water, an individual needs to acknowledge a desire to hydrate, have the time to take a drink, be in a place where taking a drink is possible and have the capacity to swallow.

As well as an exchange between parties, there is also an exchange going on between the internal world of the individual (the agent) and their external context. In this exchange, the agent is prepared to exchange value realizing resources for other kinds of value. For example, a social entrepreneur might be prepared to exchange their time and effort to manage a food bank to meet the intrinsically good goal of addressing food poverty and to fulfil their personal values of upholding their social conscience, making a difference, meaning-making and public service.

According to Pinelli et al. (2021), an entrepreneurial venture emerges when an entrepreneur establishes a system of exchange relationships with multiple stakeholders for value creation purposes. In this paper, we are arguing that one of the multiple stakeholders in this process is the entrepreneur or agent themselves, and rather than being constrained to the creation of an entrepreneurial venture, we would extend the scope of what can be created to include any new value, including the fulfilment of personal values. Only intrinsic values can turn practical activity into fully justified value creation (Donaldson, 2021).

We will now move on to discuss how discipline shapes the meaning of value creation in three disparate academic disciplines – Business, Biomedical Science and Music.

Using a value creation approach to engagement in a Business School

Entrepreneurship education in the context of a business school is particularly vulnerable to the adoption of an economically framed definition of value. The prevalence of measurement and evidence, as well as the need for proof of applicability and usefulness, assessment, and audit, have put an emphasis on the creation of successful (i.e., profitable) business ventures by staff and students. ‘Venture creation programmes’ use the number and success of student start-up ventures as an objective measure of the effectiveness this type of entrepreneurship education initiative.

von Graevenitz et al. (2010) suggest the most important impact of entrepreneurship education in a business context could be to enable students to sort themselves into those with an aptitude for entrepreneurial tasks and those without. This would imply that there really does need to be a better and more explicit connection between the personal values of the students and the nature of the exchange they enter into in order to fulfil those personal values. Depending on what they discover about themselves, students may adjust their entrepreneurial intentions up or down. One of the effects of entrepreneurship education is that entrepreneurial intentions become more pronounced (either more positive or more negative) and it may actually reduce entrepreneurial intent overall.

This is likely to be a useful, if somewhat less politically attractive outcome (von Graevenitz et al., 2010). A decline in futile venture creation could be socially valuable, as those not suited to entrepreneurship would be less likely to try to become entrepreneurs and be less likely to contribute to costly business failure rates. Entrepreneurship education from this perspective is a valuable way of informing students about career options better aligned to their personal values but not of increasing business start-up intent overall. However, it is also true that the effects of entrepreneurship education on entrepreneurial intention and the amount and success of subsequent start-up activity are not yet well understood with some contradictory findings (e.g. Nabi et al., 2010; Oosterbeek, Van Praag et al., 2010).

The effectiveness of entrepreneurship education in the context of a business school is often measured in terms of indirect consequences such as the generation of spin outs, the increased number and success of student businesses and the salaries of graduates. However, the development of skills and employability through enterprise and entrepreneurship education are also outcomes which create value for graduates, employers, society and the economy – and are recognised as key to job creation

and growth (Nielsen et al., 2012). One pedagogy relates to candidate threshold concepts of entrepreneurship, enabling students to see things in a different way and facilitating student learning (Hatt, 2021). The use of real business projects and engagement in practical activities, including exposure to the potential for failure as a learning experience, enables learners to create value and facilitates a deeper understanding of the nature of that value, through real world experience within the curriculum (Hatt, 2021). An 'effective team working' module, informed by the work of Lackeus (2015) enabled students to learn by creating something of value for others, designing and delivering a workshop for their old school or college about effective team working in an enterprising context. This value creation based pedagogical approach, using experiential learning, helps engage students and provides opportunities for personal and professional development, demonstrating the value they can create and meaning they can make by applying their business skills. This is valuable preparation for their futures, giving the opportunity to experience at first hand and reflect on threshold concepts in entrepreneurship, such as 'entrepreneurial agency' and 'value being determined by the customer' (Hatt, 2021). The learning experience develops self-efficacy, creates something authentic and meaningful and allows for the application of a range of skills and for reflection, which are valuable for the students' futures. Engaging students in doing something valuable for others and which is also congruent with their own values, emphasises that value creation is at the heart of entrepreneurship. This can be seen as a turn away from the purely economic, to what Lackeus (2020) describes as a broader and more learning-oriented understanding of entrepreneurship.

Using a value creation approach to engagement in a School of Music

Musicians and creatives can find economically framed models of value and business development harder to relate to when they are seeking to create original artistic work with a high level of intrinsic value, which may represent experiences or forms of enjoyment and meaning which audiences are as yet unaware of wanting to participate in. This is not to take an unnuanced binary view of art and commerce; as Hesmondhalgh argues (2019, p. 98) 'the relationship between creativity and commerce is a matter of negotiation, conflict and struggle' but ultimately 'all creators have to find an audience.' However, the value created for the artist is an important dimension, with research showing that the potential for fulfilment, personal autonomy and self-expression, self-actualisation and sense of community are strong drivers of artistic production and an acceptance of uncertainty (Hesmondhalgh, 2019; Menger, 1999) rather than as another type of entrepreneur seeking exchange value through design thinking, problem-solving and the identification of markets. This underlies the reluctance of musicians to see themselves as entrepreneurs (Coulson, 2012; Haynes & Marshall, 2018), and emphasises the importance of understanding entrepreneurship and value in broader and more nuanced terms, expressed in congruent language. It gives a basis for supporting musicians in developing the competences associated with entrepreneurship and applied by musicians, which can support the development of their careers (Nolan & Weatherston, 2016).

It is helpful to understand enterprise and entrepreneurship in the context of music in terms of value creation. Entrepreneurial skills and business knowledge have historically been, and continue to be enablers of creative practice, the creation of opportunities, collaborations, networks, connecting with audiences, and the generation of income (Coulson, 2012; Rutter, 2016; Weber, 2004). Music is a profession in which there is a need to self-manage, self-produce and self-promote in order to establish a creative career, which is likely to be freelance, with portfolios of work and to involve setting up in self-employment. However, research has shown that musicians' sense of identity is as a member of a community of musicians, rather than as an entrepreneur (Coulson, 2012; Haynes & Marshall, 2018). There is a perceived lack of congruence between musicians' values and their sense of the value they create, and the popular and media discourses which surround entrepreneurship, which as David Rae has suggested, can be perceived as an amoral, value-free concept (Rae, 2010). It is important therefore to broaden understandings of entrepreneurship in music through pedagogical practice and

experiential forms of learning (de Blaquiére et al., 2019; Nolan & Weatherston, 2016) in order to help students prepare for their futures after graduation.

Given that careers in music are likely to be self-managed and involve self-employment, both enterprise and entrepreneurial learning can underpin broader professional development. However, research has shown that enterprise and entrepreneurship do not necessarily translate comfortably within the Arts and Humanities (Nolan & Weatherston, 2016). In the context of music, enterprise and entrepreneurship need to be conceptualised as being more than economically driven, they also need to be contextualised and understood as social processes. This approach is rooted in a social constructionist view, in which identity and behaviour is socially constructed through interactions with individuals, organisations, society and institutions and is expressed and understood through language. Research using narrative, discourse, metaphor and storytelling and the development of self-identity through narratives in entrepreneurship is important in gaining this broader understanding (Anderson et al., 2012; Chell, 2000; Down, 2006; Hjorth & Steyaert, 2003). It is helpful to unpack narratives which are meaningful for people working and studying in the Arts and explore enterprise and entrepreneurship in terms of the creation and realisation of value through creativity. There is an associated need to ensure that business skills are contextualised in music using appropriate language and ideas congruent with individual's values and those within the appropriate community of practice (Nolan & Weatherston, 2016). This positions entrepreneurial skills as enablers of a music career, distinct and different from popular and media stereotypes of entrepreneurs, recognising differing motivations and forms of value created.

The pedagogical approaches used to engage music students with the entrepreneurial competences which can underpin their professional development and future careers as musicians, involve a broader and more pluralistic view of value than the maximization of profit. They encompass social, ethical and responsible entrepreneurship, offering opportunities for multiple forms of value-creation, including the creation of social, cultural and economic value (Lackéus and Williams Middleton, 2018; Rae, 2017). Whilst it is acknowledged that conceptions of value can be precise (quantification of exchange value) or slippery, in the sense of 'moral understandings of what matters to people' (Skeggs, 2011, p. 496), it is useful 'to think of value economically (the distribution of resources) *and* relationally, as a more general ethos for living, for sociality, for connecting to others through dispositions, practices and orientations' (Skeggs & Loveday, 2012, p. 476). Graeber (2001, p. 41) argues that value creation is based in action and the importance people attribute to their actions; in this case the process of creating music, and eliciting responses, thus potentially creating meaning and value for the musician and audiences. This is how the individual personal values of students and what matters to them can be understood. Their general ethos for living, their sense of identity and self, play out in their practices, their beliefs, values, and their decisions about future careers in music or the creative sector more generally; these have been based on broader ideas about value and success than simply economic rewards. Their career intentions have been informed by their sense of self, identity, and values, and their desire to make meaning in their working lives (Davidson, 2017; Kruger & Lincoln, 2009; Young & Collin, 2000). Whilst they acknowledge that they need to make a living, they are not primarily driven by economic outcomes; they are aware of the challenges of creating a career in music. However, through their experiences of enterprise and entrepreneurship within the curriculum, they can gain experience and come to an understanding of the ways in which entrepreneurial competences can support their talent and creativity as they launch and develop their careers. Those competences and experiences can also enhance their employability (Nolan, 2021).

In approaching the learning and teaching of entrepreneurial skills and competences within music, it is important to reconcile the tensions between sense of identity and motivation towards being a musician, and perceptions of what it is to be entrepreneurial, with its implications of motivation towards profit and commercialism. Music-making is driven by passion, personal values, and a desire for meaning-making (e.g., Coulson, 2012; Rutter, 2016). Case studies of music and creative practitioners, who share their lived experience with students, provide insightful and relatable

narratives which illustrate the application of skills and competences associated with entrepreneurship. Experiential learning and reflection on outcomes, through an event management module and a module which involves placements with organisations and creative practitioners in the creative economy, again within the academic curriculum, help to underpin these motivations with an understanding of entrepreneurship as value creation for both audiences and creators; including the value of business skills and frameworks in mitigating risk, creating and sourcing opportunities, developing effective marketing and branding, and building networks (Rutter, 2016). Practitioner research has shown that these learning experiences help students understand, experience and reflect on the skills, competences and knowledge associated with entrepreneurship in terms of value creation both at a personal level and for their potential audiences, and as enablers of their careers in music and the creative sector (Nolan, 2021).

Using a value creation approach to engagement in a School of Biomedical Science

The Biomedical Sciences (biosciences) are concerned with innovation and finding solutions to pressing problems for individuals and societies through scientific investigation, and with continuously expanding the boundaries of scientific knowledge. Having created innovative solutions and new knowledge, there is a need to make this available, including through processes of commercialisation. The COVID-19 pandemic has further highlighted the significant value which bioscience creates. Skills and knowledge associated with enterprise and entrepreneurship are vital at each stage of the processes of discovery, identification of needs, development, and commercialisation. Yet initially enterprise and entrepreneurship are unfamiliar concepts for students. Hence, engaging students with these concepts involves evidencing how enterprise and entrepreneurship are coded into the very DNA of scientific research, enabling scientists to create value.

This involves translating the value of enterprise and entrepreneurship, which is altogether new, into language and practices relating to the values and expectations of a science-based discipline (Watts et al, 2010). Bioscience students are inherent problem-solvers, accustomed to learning about complex biological systems and processes for the purpose of understanding function and dysfunction, yet often this happens in a narrow window of a much broader landscape. Scientific enquiry starts with what they already understand (facts), what they want to find out (the unknown/untested), how they will test this (metadata analysis/experimental design), what controls they require to validate experiments, and their hypothesis. This process has an equivalency in entrepreneurial methodologies; scientific literature searching mimicking market research and searching prior-art, validation of market need, making sure the sample population is typical/unbiased and proposing an informed strategy with given targets. Developing the creative and innovative aspects of research and assessment enhances graduate bioscience employability, with enterprise and entrepreneurship in this area involving students addressing problems with the space to explore and know that there is not necessarily one 'right answer.'

Bioscientists may be disheartened if they get an inconclusive or unexpected result, largely due to the investment of time and resources. Yet value derives through participating in entrepreneurial learning activities, which require being comfortable with not knowing or not being able to predict the answer from the non-linear process. Such learning helps develop resilience and contributes to the development of objective and inquisitive scientists.

The value of competences associated with entrepreneurship, such as networking and opportunity spotting, are illustrated through relevant bioscience case studies. In 2020, the Nobel Prize in Chemistry was awarded jointly to Emmanuelle Charpentier and Jennifer Doudna for their discovery of the bacterial genetic scissors (CRISPR-Cas9), which can be harnessed to target and edit errors in DNA (Leland & Callaway, 2020). Their serendipitous meeting at a conference and recognition of the value of each other's independent discoveries led to their collective development of gene editing using

components of the natural repair system. Whilst breakthrough discoveries such as these are rare but revolutionary, the opportunities to foster these links and find common ground in research enables scientists to recognise the value of each other's work and work according to the principles of effectuation (Sarasvathy, 2003).

In terms of demonstrating how bioscientists create value, the COVID19 pandemic has led to an unparalleled sharing of knowledge and information, advancing science motivated by a common cause for humanity. Whilst large pharmaceutical companies may benefit reputationally and financially from vaccine production, a myriad of scientists and laboratories in both the public and private sector were involved in developing understanding of the virus and its epidemiology, and this has resulted in rapid testing and treatments. This collaborative endeavour validates the PERMA (Positive emotion, Engagement, positive Relationships, Meanings, Accomplishments/Achievements) model for flourishing at a task or process through flow and wellbeing (Seligman, 2011), resulting in innovative solutions to benefit the common good. This sense of the value that can be created for others and the difference which bioscience can make in the world, helps engage students and underpins key enterprise and entrepreneurship modules, which develop the skills and competences required.

Teaching entrepreneurship to bioscience students is grounded in an approach they readily understand, provided the value is contextualised by discipline. Determining this value begins with taking the facts and knowledge (DNA), and transcribing this into meaningful language (RNA), which can then be translated to a meaningful output (protein), recognised to have a purpose and value. Without the basic disciplinary information and grounding, one cannot develop purpose and meaning; enterprise and entrepreneurship education being the machinery which aids these linguistic and transformational processes.

In bioscience enterprise modules, students work in teams to identify, or work with a posed problem, and develop strategies or solutions. They are given scope to develop ideas from their scaffold knowledge framework and often incorporate lived experience or bioscience, or a health-related passion from their studies. Moving students from a theoretical entrepreneurship understanding, through experiential 'shadowing' of bioscience alumni entrepreneurs, then into the questioning and problem-solving phase enables them to enter into the somewhat unsettling zone of the 'unknown', or hypothesis of a business idea. Formative, targeted, timely and relevant feedback means students can re-interpret their ideas and swiftly re-develop or evolve these without becoming too attached to one idea. Students benefit from peer support and the guidance of perceived 'entrepreneurial bioscience alumni' who can share the experience of creating value, and through reflection on the application of their scientific skills and knowledge to add value to their creation.

Within the learning and teaching, a collaborative method of sounding out or explaining research findings to peers supports the development of an impartial perspective. This trust in one's own independent knowledge and willingness to hear other interpretations of it is often where value is created; whether this be from considering how a method or discovery could be used commercially or spotting similarities in otherwise unconnected areas of science. Jones (2007) further developed Heath's 'Reasonable Adventurer' model from 1964 through his approach with students engaging in enterprise education; setting out to understand something without defining a process or what the answer should be. The value he places on cross-disciplinary communication to realise concept value is also reliant on the individual's self-efficacy. This in itself requires a shift in both behaviour, a level of trust in those listening, and a willingness and confidence developed through self-belief or effectuation (Sarasvathy, 2001).

The methodology behind teaching bioscience students requires theory be positioned so they understand a bioscience-related need (market) by using a classical causation approach. The approach of Yock et al. (2011) in biomedical technology innovation (the Stanford Biodesign method), keeps students away from finding a solution until they have fully questioned the who and why. This

experiential learning process and exposure to new information positions the value for the consumer through effectuation as alluded to by Sarasvathy (2003).

Questioning the why and how of biological function/dysfunction leads to opportunity spotting, which can be embedded in bioscience enterprise and entrepreneurship teaching, triggering student engagement. Vital to this is the freedom to experiment, an allowed margin to fail and time to reflect and redesign. Value creation in the sphere of bioscience relies not only on commercial validation but also of personal and professional recognition of a willingness to challenge, and to try new methods. The majority of bioscience students will seek employment rather than self-employment; however, their engagement with enterprise and entrepreneurship education helps develop them as scientists, intrapreneurs and employable graduates.

Conclusion

This paper has explored the significance of a value creation approach in engaging students with enterprise and entrepreneurship education in the context of three disparate academic disciplines - Business, Biomedical Science/Bioscience and Music. We have argued for a move beyond narrow conceptions of both value creation and entrepreneurship. It has highlighted the significance of intrinsic motivations and personal values that underpin action and engagement, which are crucial to value creation, but which are difficult to reduce to exchange value or value in use. Engaging students in these three diverse disciplines with enterprise and entrepreneurship education, which provides knowledge, skill and experiences which enhance their employability, involves reflection on personal and intrinsic values as well as broader understandings of value that can be created from entrepreneurship.

Discussion of value creation and entrepreneurship within the three different disciplines has also highlighted that understandings of these concepts are socially constructed and affected by context. Since language is the way in which those meanings and understandings are constructed, the concepts of entrepreneurship and value require interpretation and translation within different disciplinary contexts. Within Music and the Biomedical Sciences, the language and terminology of entrepreneurship are unfamiliar and, influenced by media stereotypes and political ideologies, may be perceived negatively. Within the context of a Business School, whilst the language of entrepreneurship may be familiar through study, the dominant theoretical frame is one of economic outcomes and venture creation, which can limit perceptions of relevance to individuals who are not intending to set up a business.

Gaining new perspectives on entrepreneurship and value creation in terms of both personal value and understanding the potential for making a difference in the world through the creation of value, not simply in terms of economic value, but for wider society, culture, technology, and the environment, is significant as a way of engaging students across all three disciplines under consideration with entrepreneurship education and supporting the creation of value through future careers. This may be through the creation of new ventures or in creative practice - or as employees, equipped with competences which enhance employability and help students deal with greater uncertainty and complexity (Gibb, 2000).

Whilst venture creation and profit maximisation are not primary drivers in the context of music, many musicians are self-employed and set up in creative practice – therefore entrepreneurial competences such as marketing and networking are vital, as is the ability to create a portfolio of income streams to sustain a creative career. Whilst passion, creativity and authenticity are at the heart of the value musicians seek to create, and intrinsic motivation is significant, their work is shared with audiences and takes its place within markets; business knowledge and entrepreneurial competences are needed to generate income, minimise risk and maximise opportunity (Rutter, 2016). Thus, engagement with enterprise and entrepreneurship education is an enabler of their creative careers.

In order to create commercial value from their scientific research, and make a difference in the world, scientists must not only appreciate the context of their work but also the consequence of its application, so entrepreneurial knowledge and competences are vitally important.

Within a Business School, a wide range of future possibilities is open to students and graduates equipped with the knowledge and competences for entrepreneurship. Again, enterprise and entrepreneurship education can enable and support students' development and future careers.

Enabling students to frame entrepreneurship as value creation, linked to personal values and intrinsic motivations (Lackéus, 2020) and to gain an understanding of value creation in the context of students' disciplines, is an important part of the facilitative role of enterprise and entrepreneurship educators. However, this involves the interpretation and translation of value as it is understood in the communities of disciplinary and professional practice which the students are becoming members of, through developing students' critical awareness, opening up broader conceptualisations of entrepreneurship, value creation and value, and providing opportunities for experiential learning which provide insights and lived experience of those concepts contextualised in the practices of their discipline. Experiential learning, enabling students to create and reflect on value in context through actively 'entrepreneurial' (Steyaert, 2007), is significant as a way of gaining insight and understanding of the value creation process in each of the disciplines under consideration. Similarly, given the significance of appropriate language to understanding entrepreneurship and value within each disciplinary area, the use of case studies and the involvement of practitioners is important; their lived experience can exemplify the ways in which they are actively creating value through applying entrepreneurial competences in practice. Together with theoretical analysis and engagement in reflective practice by students supported by the enterprise and entrepreneurship educator, this is a valuable form of pedagogy within all three disciplines. A summary of the findings is provided in a comparative table (Table 1 below).

Understanding entrepreneurship as value creation, both as a way of achieving personal values and goals, and of creating value for others, is crucial in engaging Business, Biomedical Sciences and Music students with enterprise and entrepreneurship education, which in turn enhances graduate employability and helps students prepare for their futures after graduation (de Blaquiére et al., 2019; Gibb, 2000; QAA, 2018). We argue that this paper offers new insights which have wider applicability, inviting further dialogue and practitioner research across academic disciplines.

Table 1. Key Findings

Discipline	Learner Readiness	Understanding of Value Creation	Student Engagement	Pedagogies	Link to Employability
	How does student engagement, familiarity and comfort with enterprise and entrepreneurship affect their willingness to engage with enterprise and entrepreneurship education?	How is value creation understood within the disciplinary context?	How is a contextualised understanding of value creation being expressed and used to engage students?	What pedagogies for engaging students with enterprise and entrepreneurship education to enhance employability are being applied?	How is employability being enhanced through student engagement?
Biomedical science/ bioscience	Concepts of enterprise and entrepreneurship may be unfamiliar at an individual level, with limited opportunity in the curriculum to experiment with innovation and invention in a laboratory context. Although the commercialisation of scientific research is understood as a way of making solutions available through global industries.	Innovation and solution finding to create both meaningful (progressive) and economic value from research. Extrinsic value created through communication of current research and subsequent commercialisation.	Broadening the scientific scope and adding value from pure research through contextual awareness concerning health and economic value for society, technology and the environment.	<ul style="list-style-type: none"> • Problem-solving in teams • Alumni case studies and shadowing • Experiential learning with the potential for failure • Reflective practice 	<p>Development of self-efficacy, problem solving and team working skills, awareness of the lived experience of alumni, a greater understanding of the context of their future work as scientists and the consequence of its application.</p> <p>Experiential learning offers career insights and aspirations alongside valuable evidence for use in CVs and interviews.</p>
Business	Concepts of enterprise and entrepreneurship are familiar, although not universally embraced through study of business and management. Media	Venture creation and start up, with traditional historic focus on creation of extrinsic, economic value although recently the creation of additional	Opening up new perspectives, creating a broader understanding of enterprise and entrepreneurship, not only the creation of	<ul style="list-style-type: none"> • Experiential learning • Real business projects • Effective teamwork challenges 	Experiential learning and engagement helps students decide on whether they are interested in self-employment /venture

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	stereotypes of entrepreneurs serve to polarise and results in students categorising themselves as either entrepreneurial or not.	forms of (extrinsic) value are increasingly foregrounded.	economic value but value for wider society, culture, technology and the environment as either a venture creator (founder) or 'intrapreneur' (employee). Using appropriate language and context. Making a difference in the world through solving wicked problems and meeting needs of others.	<ul style="list-style-type: none"> • Case studies • Reflective practice 	<p>creation, or wish to be employed – opening up a range of future work possibilities. Students learn to engage with uncertainty, building confidence and capability.</p> <p>Experiential learning offers valuable evidence for use in CVs and interviews.</p>
Music	Concepts of enterprise and entrepreneurship are unfamiliar, alien and uncomfortable concepts associated with commercialisation and the global music industry, rather than concepts that could support creative practice at an individual level	Value is perceived in the creation of music underpinned by strong intrinsic motivation, and linked to sense of identity and personal values. This is juxtaposed with a recognition that music careers are often freelance/self-employed and that musicians need to realise economic value from creativity in order to sustain their practice.	Opening up new perspectives, creating a broader understanding of enterprise and entrepreneurship, not only as the creation of economic value but value for wider society, culture, technology and the environment. Using appropriate language and context. Making meaning in the world and making a difference, creating value for themselves and others through artistic creativity.	<ul style="list-style-type: none"> • Experiential learning through event creation and management module • Placements • Engaging with practitioners to gain insight into lived experience and contemporary practice • Reflection on learning and practice. 	<p>Creating a music career requires entrepreneurship skills to support self-employment. Experiential modules prepare students for employment in the creative sector by building confidence, and gaining skills, knowledge and networks within appropriate communities of practice beyond the University.</p> <p>Experiential learning offers valuable evidence for use in CVs and interviews for freelance work or employment.</p>

References

- Aldianto, L., Anggadwita, G., & Umbara, A. N. (2018). Entrepreneurship education program as value creation: Empirical findings of universities in Bandung, Indonesia. *Journal of Science and Technology Policy Management*, 9(3), 296–309. <https://doi.org/10.1108/JSTPM-03-2018-0024>
- Anderson, A. R., Dodd, S. D., & Jack, S. L. (2012). Entrepreneurship as connecting: some implications for theorizing and practice. *Management Decision*, 50(5), 958-971. <https://doi.org/10.1108/00251741211227708>
- Bell, R. (2016). The continuing search to find a more effective and less intimidating way to teach research methods in higher education. *Innovations in Education and Teaching International*, 53(3), 285–295. <https://doi.org/10.1080/14703297.2014.956780>
- Bell, R. (2022). Developing entrepreneurial behaviours in the Chinese classroom through value creation pedagogy. *Innovations in Education and Teaching International*, 59(1), 37-48, <https://doi.org/10.1080/14703297.2020.1793800>
- Chell, E. (2000). Towards researching the “opportunistic entrepreneur”: a social constructionist approach and research agenda. *European Journal of Work and Organizational Psychology*, 9(1), 63-80. <https://doi.org/10.1080/135943200398067>
- Collini, S. (2012). *What are Universities for?* Penguin Books.
- Coulson, S. (2012). Collaborating in a competitive world: musicians’ working lives and understandings of entrepreneurship. *Work, Employment and Society* 26(2), 246-261. <https://doi.org/10.1177/0950017011432919>
- Davidson, C. (2017). *The new education: how to revolutionize the university to prepare students for a world in flux*. Basic Books.
- De Blaquiére, G., Nolan, J., & Wray, K. (2019). Joining up the dots: telling the story of skills. How can students in higher education be supported to better understand and articulate their employability? *Journal of Teaching and Learning for Graduate Employability*, 10(2), 15-35. <http://dx.doi.org/10.21153/jtlge2019vol10no2art699>
- Donaldson, T. (2021). How values ground value creation: The practical inference framework. *Organization Theory*, 2(4). <https://doi.org/10.1177/26317877211036712>
- Down, S. (2006). *Narratives of enterprise: Crafting entrepreneurial self-identity in a small firm*. Edward Elgar Publishing. <http://dx.doi.org/10.4337/9781845429904>
- Enterprise Educators UK. (2012). *Response to the Wilson Review on business-university collaboration: Think piece on enterprise and entrepreneurship education*.
- Fayolle, A. (2011). *Entrepreneurship and new value creation: The dynamic of the entrepreneurial process*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511488689>
- Feinstein, A. H., Mann, S., & Corsun, D. L. (2002). Charting the experiential territory: Clarifying definitions and uses of computer simulation, games, and role play. *Journal of Management Development*, 21(10), 732–744. <https://doi.org/10.1108/02621710210448011>
- Freeman, R. E., Harrison, J. S., & Wicks, A. C. (2007). *Managing for stakeholders: Survival, reputation and success*. Yale University Press. <http://dx.doi.org/10.12987/9780300138498>
- Gibb, A. (2002a). Creating conducive environments for learning and entrepreneurship: living with, dealing with, creating and enjoying uncertainty and complexity. *Industry and Higher Education*, 16(3), 135-148. <https://doi.org/10.5367/000000002101296234>
- Gibb, A. (2002b). In pursuit of a new ‘enterprise’ and ‘entrepreneurship’ paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*, 4(3), 233-269. <https://doi.org/10.1111/1468-2370.00086>
- Gibb, A. (2005). *Towards the entrepreneurial university, entrepreneurship education as a lever for change*. National Council for Graduate Entrepreneurship (NCGE), Birmingham. <https://ncee.org.uk/wp-content/uploads/2023/09/towards-the-entrepreneurial-university.pdf>
- Gibb A. (2000, April 28). *Enterprise in education: Educating tomorrow’s entrepreneurs keynote address to Finnish conference on futureless present?* [Keynote address]. Finnish Conference on Futureless Present? Expert Seminar of Entrepreneurship and Technology Education. University of Oulu, Department of Teacher Education, Kajaani, Finland. <https://www.retired.jyu.fi/enorssi/hankkeet/yritystajyyskasvatus/pdf/Gibb.pdf>
- Giddens, A. (2000). *The third way and its critics*. Polity Press.
- Graeber, D. (2001). *Towards an anthropological theory of value: the false coin of our dreams*. Palgrave Macmillan. <https://doi.org/10.1057/9780312299064>

- Hatt, L. (2021). Learning enterprise and entrepreneurship through real business projects. In D. A. Morley & M. G. Jamil (Eds.), *Applied pedagogies for Higher Education: Real world learning and innovation across the curriculum* (pp. 215-242). Springer International Publishing. https://doi.org/10.1007/978-3-030-46951-1_10
- Haynes, J., & Marshall, L. (2018). Reluctant entrepreneurs: Musicians and entrepreneurship in the 'new' music industry. *British Journal of Sociology*, 69(2), 459-482. <https://doi.org/10.1111/1468-4446.12286>
- Heath, R. (1964). *The reasonable adventurer*. University of Pittsburgh Press.
- Henry, C. (2013). Entrepreneurship education in HE: are policy makers expecting too much? *Education+ Training*, 55(8/9), 836-848. <http://dx.doi.org/10.1108/ET-06-2013-0079>
- Herodotou, C., Sharples, M., Gaved, M., Kukulska-Hulme, A., Rienties, B., Scanlon, E., & Whitelock, D. (2019). Innovative pedagogies of the future: An evidence-based selection. *Frontiers in Education*, 4. <https://doi.org/10.3389/feduc.2019.00113>
- Hesmondhalgh, D. (2019). *The cultural industries* (4th ed.). Sage.
- Hindle, K. (2010). How community context affects entrepreneurial process: A diagnostic framework. *Entrepreneurship & Regional Development*, 22(7-8), 599-647. <https://doi.org/10.1080/08985626.2010.522057>
- Hjorth, ., & Steyaert, C. (2003). Entrepreneurship beyond (a new) economy: creative swarms and pathological zones. In C. Steyaert & D. Hjorth (Eds.). *New movements in entrepreneurship*. Edward Elgar. <https://doi.org/10.4337/9781781951200.00028>
- John, K. S., and McNeal, K. (2017). The strength of evidence pyramid. *Journal of Geoscience Education*, 65(4), 363-372. <https://dx.doi.org/10.5408/17-264.1>
- Jones, C. (2007). Creating the reasonable adventurer: The co-evolution of student and learning environment. *Journal of Small Business and Enterprise Development*, 14(2), 228-240. <https://doi.org/10.1108/14626000710746664>
- Kawasaki, G. (2004, October 20). Make meaning in your company. [Video] Stanford eCorner, Stanford University. <https://ecorner.stanford.edu/videos/make-meaning-in-your-company/>
- Kipnis, A. (2007). Neoliberalism reified: Suzhi discourse and tropes of neoliberalism in the People's Republic of China. *Journal of the Royal Anthropological Institute*, 13(2), 383-400. <https://doi.org/10.1111/j.1467-9655.2007.00432.x>
- Kipnis, A. (2008). Audit cultures: neoliberal governmentality, socialist legacy, or technologies of governing? *American Ethnologist*, 35(2), 275-289. <http://dx.doi.org/10.1111/j.1548-1425.2008.00034.x>
- Knights, B. (2005). Intelligence and interrogation: the identity of the English student. *Arts and Humanities in Higher Education*. 4(1), 33-52. <https://doi.org/10.1177/1474022205048757>
- Kruger, S., & Lincoln, S. (2009). *Enhancing employability in music: an ethnographic study into students' work-based learning experiences*. Final Project Report. Higher Education Academy https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/enhancing-employability-in-music_1568036725.pdf
- Lackéus, M. (2015). *Value creation as educational philosophy. Towards a new educational philosophy grounded in entrepreneurship?* [Doctoral dissertation, Chalmers University of Technology, Gothenburg, Sweden] <https://publications.lib.chalmers.se/records/fulltext/236812/236812.pdf>
- Lackéus, M., Lundqvist, M., & Williams Middleton, K. (2016). Bridging the traditional-progressive education rift through entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 22(6), 777-803. <https://dx.doi.org/10.1108/IJEBR-03-2016-0072>
- Lackéus, M. (2018). 'What is value?' – A framework for analyzing and facilitating entrepreneurial value creation. *Uniped*, 41(1), 10-28. <http://dx.doi.org/10.18261/issn.1893-8981-2018-01-02>
- Lackéus, M. (2020). Comparing the impact of three different experiential approaches to entrepreneurship in education. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 937-971. <https://doi.org/10.1108/IJEBR-04-2018-0236>
- Lackéus, M., & Williams Middleton, K. (2018). Assessing experiential entrepreneurship education: Key insights from five methods in use at a venture creation programme. In Hyams-Ssekasi, D., Caldwell, E. (Eds) *Experiential learning for entrepreneurship: Theoretical and practical perspectives in enterprise education* (pp. 19-49). Palgrave Macmillan. http://dx.doi.org/10.1007/978-3-319-90005-6_2
- Leland, H., & Callaway, E. (2020, October 7). Pioneers of revolutionary CRISPR gene editing win Chemistry Nobel. *Nature*, 586, 346 - 347. <https://doi.org/10.1038/d41586-020-02765-9>
- Lovat, T., Dally, K., Clement, N., & Toomey, R. (2011). Values pedagogy and teacher education: Reconceiving the foundations. *Australian Journal of Teacher Education*, 36(7), 59-72. <http://dx.doi.org/10.14221/ajte.2011v36n7.3>
- Macht, S. A., & Ball, S. (2016). Authentic alignment: A new framework of entrepreneurship education. *Education + Training*, 58(9), 926-944. <https://doi.org/10.1108/ET-07-2015-0063>

- Menger, P-M. (1999). Artistic labor markets and careers. *Annual Review of Sociology*, 25, 541-574. <http://dx.doi.org/10.1146/annurev.soc.25.1.541>
- Moberg, K., Vestergaard, L., Jørgensen, C., Markussen, E., & Hakhverdyan, S. (2013). How to access the development of entrepreneurship education at university level: the case of Denmark. In A. Fayolle & D. Redford (Eds.), *Handbook on the entrepreneurial university*, (pp. 435-469). Edward Elgar. <https://dx.doi.org/10.2139/ssrn.2220727>
- Morris, M. H., Pryor, C. G., & Schindehutte, M. (2012). Entrepreneurship as experience: How events create ventures and ventures create entrepreneurs. Edward Elgar. <https://doi.org/10.4337/9781781005187>
- Mueller, S., & Anderson, A. R. (2014). Understanding the entrepreneurial learning process and its impact on students' personal development: A European perspective. *The International Journal of Management Education*, 12(3), 500-511. <https://doi.org/10.1016/j.ijme.2014.05.003>
- Nabi, G., Holden, R., & Walmsley, A. (2010). Entrepreneurial intentions among students: towards a re-focused research agenda. *Journal of Small Business and Enterprise Development*, 17(4), 537-551. <https://dx.doi.org/10.1108/14626001011088714>
- Nielsen, S. L., Klyver, K., Evald, M. R., & Bager, T. (2012). *Entrepreneurship in theory and practice: Paradoxes in play*. Edward Elgar Publishing.
- Nolan, J. (2020). *Narrating employability from English Studies: an ethnographic study*. [Unpublished doctoral dissertation] Newcastle University. <https://theses.ncl.ac.uk/jspui/handle/10443/4940>
- Nolan, J. (2021, September 14). Value created through meaningful engagement with and participation in the Creative Economy, through pedagogy and practice. [Paper presentation]. Royal Musical Association Conference, Newcastle, UK.
- Nolan, J., & Weatherston, D. (2016). BaFL: Business as a Foreign Language: How should we speak to PGRs from the Arts and Humanities in order to encourage engagement with enterprise and entrepreneurship education and training? *VITAE Occasional Papers*, 3. <https://www.vitae.ac.uk/vitae-publications/reports/vitae-occasional-papers-vol3-d2.pdf>
- Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54(3), 442-454. <https://doi.org/10.1016/j.euroecorev.2009.08.002>
- Pinelli, M., Lechner, C., Kraus, S., & Liguori, E. (2021). Entrepreneurial value creation: conceptualizing an exchange-based view of entrepreneurship. *Journal of Small Business and Enterprise Development*, 29(2), 261-278. <https://doi.org/10.1108/JSBED-04-2021-0155>
- Quality Assurance Agency. (2012, February). *Enterprise and entrepreneurship education. Guidance for UK Higher Education providers*. https://www.researchgate.net/publication/345004590_Enterprise_and_entrepreneurship_education_Guidance_for_UK_higher_education_providers_Draft_for_consultation#fullTextFileContent
- Quality Assurance Agency. (2018, January). *Enterprise and entrepreneurship Education: Guidance for UK Higher Education providers*. https://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf?sfvrsn=15f1f981_8
- Rae, D. (2010). Universities and enterprise education: responding to the challenges of the new era. *Journal of Small Business and Enterprise Development*, 17(4), 591-606. <https://doi.org/10.1108/14626001011088741>
- Rae, D. (2017). Entrepreneurial learning: peripherality and connectedness. *International Journal of Entrepreneurial Behavior & Research*, 23(3), 486-503. <http://dx.doi.org/10.1108/IJEBR-05-2016-0132>
- Rutter, P. (2016). *The music industry handbook* (2nd ed.). Routledge.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263. <https://doi.org/10.2307/259121>
- Sarasvathy, S. D. (2003). Entrepreneurship as a science of the artificial. *Journal of Economic Psychology*, 24(2), 203-220. [http://dx.doi.org/10.1016/S0167-4870\(02\)00203-9](http://dx.doi.org/10.1016/S0167-4870(02)00203-9)
- Schroeder, M. (2021). Value Theory. In E. N. Zalta (Ed.) *The Stanford Encyclopedia of Philosophy*. <https://plato.stanford.edu/archives/fall2021/entries/value-theory/>
- Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.
- Skeggs, B. (2011). Imagining personhood differently: person value and autonomist working-class value practices. *The Sociological Review*, 59(3), 496-513. <https://doi.org/10.1111/j.1467-954X.2011.02018.x>
- Skeggs, B., & Loveday, V. (2012). Struggles for value: value practices, injustice, judgement, affect and the idea of class. *The British Journal of Sociology*, 63(3), 472-490. <https://doi.org/10.1111/j.1468-4446.2012.01420.x>
- Steyaert, C. (2007). 'Entrepreneurship' as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies. *Entrepreneurship and regional development*, 19(6), 453-477. <https://doi.org/10.1080/08985620701671759>

- Thatcher, M. (1984, February 8). Speech to Small Business Bureau Conference.[Speech transcript]. <https://www.margarethatcher.org/document/105617>
- von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior & Organization*, 76(1), 90-112. <https://doi.org/10.1016/j.jebo.2010.02.015>
- Watts, C., Wray, K., Kennedy, C., Freeman, P., & Trainer, G. (2010). Embedding enterprise in biosciences: Added value for employability. *Industry and Higher Education*, 24(6), 487 - 494. <https://doi.org/10.5367/ihe.2010.0009>
- Weber, W. (2004). Part One: Overview of the subject. In W. Weber (Ed.), *The musician as entrepreneur, 1700-1914: Managers, charlatans, and idealists*. Indiana University Press. <https://doi.org/10.2307/j.ctv19m65gs.4>
- Winkler-Reid, S. (2017). 'Doing your best' in a London secondary school: valuing, caring and thinking through neoliberalism. *The Sociological Review*, 65(1), 137-153. <https://doi.org/10.1177/0081176917693553>
- Yock, P. G., Brinton, T. J., & Zenios, S. A. (2011). Teaching Biomedical technology innovation as a discipline. *Science Translational Medicine*, 3(92). <https://doi.org/10.1126/scitranslmed.3002222>
- Young, R. A., & Collin, A. (2000). Framing the future career. In A. Collin & R. A. Young (Eds.), *The Future of Career* (pp. 1-20). Cambridge University Press. <https://doi.org/10.1017/CBO9780511520853.001>