

From transcendence to general maintenance: Exploring the creativity and wellbeing dynamic in higher education

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Abstract

The issue of wellbeing in higher education has been an increasing area of discourse and action in recent years, driven considerably by increasing rates of recorded mental illness and apparent reductions in student resilience. With increasing recognition of the wellbeing challenge faced by the whole academic community, it is now incumbent on universities to move beyond deficit model support frameworks, to balance the necessary and essential challenge of study in higher education with the need for therapeutic effective interventions capable of engaging students and staff.

There is a growing body of evidence relating to the health benefits of participation with creative activity, and engagement with creative experiences. This chapter presents a focused review of the creativity-wellbeing-learning dynamic to explore the possible opportunities for a move beyond the mere provision of supplementary student support. Given the increasing significance attached to creativity as a graduate attribute, the answer to the wellbeing challenge may be to question the notion of academic and therapeutic as being mutually exclusive ideals. Shouldn't effective academic challenge improve wellbeing? Might the challenge actually provide the solution?

Introduction

This chapter considers the relationship between creativity and wellbeing and their impact on learning in higher education. Seeking to identify creative ways of supporting the development and maintenance of wellbeing and a better understanding of the relationship between wellbeing and the realisation of creativity, the work presents an analysis of the development of an integrated university level approach to this field of activity.

There are three key aspects of wellbeing of relevance in this chapter related to the individual, the organisational, and the social:

1. Individual wellbeing and personal creativity

Firstly, with respect to the wellbeing of learners, there has been growing concern in western Higher Education about an apparent reduction in the wellbeing of students, increased mental illness and lowered personal resilience (HEFCE, 2015). Recent research suggests that this may be coupled within an apparent reduction in some types of psychological creativity, such as the ability to visualise multiple possible futures (Hughes, Massey & Williams, 2017). Whilst much evidence suggests that in response to this, universities should move beyond reactive, deficiency models of support to embedded development, there is concern that consumerist and mechanistic approaches to higher education are driving opposite behaviours.

The challenges to wellbeing of 'Student Transition' into higher education (Kift & Nelson, 2005; Kift, 2009) have been well-established considerations in universities for many years, and have led to considerable changes to pedagogic practice in some institutions (notably in Australia). Nevertheless, the doubling of reported mental health conditions in the UK student population (Dandridge, 2015) provides a stark indication of the challenge at hand. Development of creative capacity and

maintenance of wellbeing through university study requires navigation and coordination through a complex array of logistical, personal, and educational challenge and noise.

Positive psychology has identified that learning, challenge and creativity are key factors in maintaining positive wellbeing (Seligman, 2011; Dweck, 2017). There is also a growing body of evidence relating to the health benefits of participation with creative activity, and engagement with creative experiences in terms of the development and maintenance of personal wellbeing (Dolan & Metcalf, 2012; Conner et al, 2016).

2. Organisational wellbeing and creativity

Secondly, there are also strong indications of the wellbeing challenge extending beyond the student body into wider academia. Regularly recognised as amongst the most stressed professional groups (Kinman and Wray, 2013), research also indicates that academic staff at lower ranking universities in related league tables, have correspondingly lower wellbeing (Bothwell, 2017), whilst surveys routinely indicate excessive working hours and challengeable contexts for creativity or productivity. In an increasingly metrics driven environment of high stakes accountability, the autonomy and personalization of purpose so necessary for motivation and 'drive,' (Pink, 2011) would seem to be under some strain in higher education. Equally, in studies of organizational wellbeing, respondents have in some surveys identified being 3.5 times more likely to be encouraged to be creative and innovative where organizational wellbeing is identified as a priority (Dornan, 2010: 8).

Correspondingly, there is a parallel and dichotomous empathy challenge in any discussion of wellbeing in higher education. By definition, those involved in academia tend to be self selectively and evidently those capable of surviving and thriving in a HE environment. It's obvious why some academics may not be able to empathise straightforwardly with any students

who find university study overtly challenging, because they clearly did not, or at least the vast majority will have succeeded in that context with many framing their understanding of student experience through decades of academia, and memories of a potentially very different HE.

3. Social wellbeing and creativity

Thirdly and finally, there remains the challenge of determining the fundamental purpose of higher education, the future it serves, and the extent to which responsibility is and should be placed on educational systems in general for fostering and developing the social good, and by implication social wellbeing. The impact of universities is measured in a variety of ways broadly aligned with generalised conceptions of wellbeing. From the emerging Teaching Excellence Framework (TEF) in the UK, to wider ranking systems and evaluative metrics employed throughout global HE systems, the extent to which universities transform life chances, stimulate economic opportunity, and impact positively in local communities, are increasingly significant measures in the determination of a university's value and success.

Nevertheless, the simple conception of universities, and indeed all educational institutions, as agencies for social good, or as batteries or drivers of local and regional creativity, is far from universal; there being competing pressures and demands placed on all educational systems to perform to a wide range of different interpretations of impact and success. Equally, given the establishment of projects such as the Working Group on Mental Health in Higher Education by Universities UK (UUK), designed specifically to improve the mental health and wellbeing both of students and staff in higher education, the increasing focus on mental health and wellbeing in public health initiatives, and related wellbeing challenge outlined in this section, there is scope to consider more carefully the extent to which wellbeing is either something to be mindful of on the margins of educational experience, or something more

fundamental to the culture and ethos of educational systems and practices.

This chapter presents a focused review of the creativity-wellbeing dynamic to explore the possible opportunities beyond mere provision of supplementary student support. It will question the apparent dichotomy between academic challenge and helping students maintain good wellbeing and suggest that supporting students to develop their creativity in terms of thoughts, behaviours and activity, alongside deep learning and academic challenge, could lead to better wellbeing for academic communities as a whole.

Defining Wellbeing

The term, 'wellbeing' is in itself a nominalisation; i.e. a verb that has become a noun ('being well' to 'wellbeing'), that appears at first glance to have a clear definition but which in effect holds no fixed meaning and so subject to different interpretations (Griffin & Tyrell, 2003).

As a result, a number of competing definitions of wellbeing can be found in the literature, each emphasising slightly different aspects of the human condition (Sen, 1999, Harsanyi, 1996, Seligman, 2011). That is not to say that wellbeing, in itself, is not a real thing, that it does not exist or that it is not worthy of study, it is simply that it is difficult to draw clear, crisp boundaries around such a holistic and broad-based part of human experience. People are well or ill, flourishing or stagnating, fulfilled or leading lives of quiet desperation. These experiences are all real and some of them individually measurable but they are shifting, malleable and subject to individual perception (Seligman, 2011).

For that reason, rather than attempting to devise a complete definition of wellbeing, it is important to establish clear working definitions and outlines for each separate discussion or study, such as this one, recognising that other definitions or frameworks may be more appropriate at other times.

Possible definitions of wellbeing

For the purposes of this chapter, a number of definitions are relevant:

Stiglitz, et al. (2009), in their report on measuring economic performance and social progress, drew attention to the differences between objective wellbeing and subjective wellbeing. Objective Wellbeing (OWB) they stated encompassed concepts such as health, social connectedness, education and freedom to pursue goals, while Subjective Wellbeing (SWB) related to perceptual evaluations of life happiness and satisfaction.

A number of authors have used forms of SWB in investigating the relationship between creativity and wellbeing (Dolan & Metcalfe, 2012). Broadly, this version of wellbeing is derived from a combination of how a person currently feels over a period of time and how satisfied or happy they are with their life overall (Kahneman, 2004, Layard, 2005). Dolan & Metcalfe (2012), argue that SWB has been validated against neurological, physiological and behavioural evidence and that it is therefore a strong indicator of actual wellbeing.

Seligman, (2011), and the positive psychology movement, however, believe that there are weaknesses in this formulation. Specifically, Seligman points to the fact that perceptions of life satisfaction are largely determined by current mood and suggest that the measure is therefore weak and lacking validity. He argues instead for a more holistic, generalised view of wellbeing that encompasses clearly defined and measurable

elements - Positive emotion (of which happiness and life satisfaction are all aspects), Engagement, Relationships, Meaning and Achievement (PERMA). Of particular interest to this discussion, of wellbeing, creativity and Higher Education, is that it is easy to map each of these elements against student life. Studying at university should provide ample opportunity to find Engagement (learning), Meaning and Achievement, student life should provide opportunities to create positive relationships and all of this should therefore contribute to positive emotion. The fact that much of the evidence suggests that this is not happening is therefore both concerning and suggests that something has gone badly wrong.

The New Economics Foundation also presented a 5-item conceptualisation of wellbeing based on an examination of evidence from the field that echoes much of the work of positive psychologists. In this formulation, good wellbeing requires individuals to:

- Connect To be engaged in positive relationships and with their community
- Be active To be physically exercising and moving
- Take notice To be engaged and aware of the world around them and of their own experiences
- Keep learning To challenge and stretch cognitively by engaging with new learning and discovering new things
- Give To help others

Needs Theories

Needs theories offer another way to consider wellbeing. Although the field owes a considerable debt to Aristotle, most needs theories largely build on the work of Albert Maslow (1943) and his original conceptualisation of underlying human needs. In this view, all human beings share the same underlying needs. These needs occur across all cultures, although the ways in which people meet their needs will be culturally and individually specific.

There are a number of alternative models of what these needs might be, although many of these models strongly echo each other and many of the differences appear to be of emphasis, language and number (e.g. Glasser, 1985; Lazarus, 1997). Deci & Ryan, (1985), suggest that these needs represent evolutionary motivations that can be grouped under the headings of autonomy, competence and relatedness. Griffin & Tyrrell (2003) have expanded on these groupings to produce a framework of nine psychological needs. Their belief is that when these needs are met in balance, (alongside physical needs) human beings flourish and have good wellbeing.

These needs are:

1. Security
2. Autonomy and control
3. Status
4. Privacy
5. Competence and achievement
6. Meaning
7. Attention
8. Intimacy

9. Connection to wider community

Our Definition of Wellbeing

There are clearly echoes and similarities between all of these accounts of wellbeing. For the purposes of this chapter (and for our work at The University of Derby) we draw on this work to formulate a holistic framework in which to think about Student Wellbeing specifically. Students are in the midst of a unique life experience and as we shall see, their interaction with academic learning has particular impacts on their wellbeing – and vice versa. For that reason, it is necessary to construct unique models for student wellbeing and the underpinning phenomenon, in order to better understand what is going on and to provide a basis for designing effective interventions.

This model considers student wellbeing as being composed of four linked and interacting domains – physical (biological), psychological, social and academic, and reflects on the impact of each of these domains for student learning and performance.

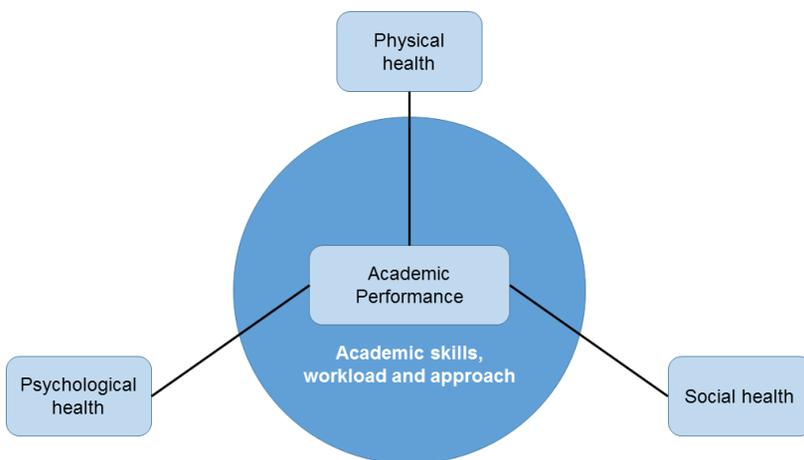


Figure 1 - Bio-psycho-socio-academic view of academic performance

Physical Student Wellbeing

Numerous studies have demonstrated that physical health and wellbeing has an immediate and real impact on student learning and performance. Sleep (Nagane, Suge, & Watanabe, 2015), hydration (Pawson, et al. 2012), exercise (Rasberry et al., 2011) and access to sunlight, (Heschong, Wright, & Okura, 2002), have all been shown to have clear effects on how students feel and perform. Exercise has also been shown to reduce anxiety and raise mood (Archer, 2016) and clear links have been demonstrated between food and mood (Quehl, et al, 2017) and sleep and wellbeing (Tang, et al, 2017).

Psychological Student Wellbeing

There is clearly strong support, among the authors identified above, for there being a strong psychological and emotional component to wellbeing. This is particularly the case for students, as lowered psychological wellbeing significantly impacts on student learning and experience. British government data demonstrates that students with a declared mental illness tend to underperform compared to their peers (Equality Challenge Unit, 2014). The work of Joseph Le Doux (1996), has also shown that heightened negative emotional arousal – specifically anxiety and fear, will reduce cognitive functioning, thereby reducing student learning and performance.

When considered more positively, new learning, challenge and being stretched can also positively enhance student wellbeing. Good wellbeing, in turn, can lead to better learning and performance. An important factor in this is that learning can

induce what Csikszentmihalyi (1998), has called flow – an enhanced mental state of performance and creativity.

Key to understanding this element is being clear about the difference between these two states. While learning and achieving flow require a certain amount of challenge, this is not the same as stress or anxiety. Griffin & Tyrrell (2003), class this as stress vs. stretch, as there are in fact two different neurological processes behind these phenomenon; Stress reduces cognitive function, stretch boosts it.

Social Student Wellbeing

Cacioppo & Patrick, (2009) have demonstrated that social isolation and loneliness also reduces cognitive function, academic performance, creativity and problem-solving ability. The field of social neuroscience has clearly established that human beings need connections to others and many authors have argued that learning has a significant cultural component. Studies of student transition into university have also shown that this transition is significantly influenced by the levels of socialisation students experience (Hughes & Smail, 2014), and Tinto (2013) has argued that for students to succeed they must socially integrate into their university. Students who are isolated are therefore more likely to underperform or withdraw from university much less be creative in their learning.

Academic Student Wellbeing

Postareff, (2016; Postareff, et al, 2016) and others have shown that the ways in which students engage with their learning can have an impact on their wellbeing and performance. Specifically, students who engage in deep learning appear to have better wellbeing, perform better and have a better experience. Students who engage in surface learning have lowered wellbeing and specifically higher anxiety, lower

performance and enjoy their experience less. The key difference between these two groups appears to be motivational focus, with deep learners having a more intrinsic motivation and surface learners a more extrinsic motivation (Deci & Ryan, 1985).

The implications of this model

The main implications of this model are that student performance derives largely from a student's physical, psychological and social wellbeing, which is filtered through and mediated by their academic approach, skills and amount of effort exerted, to produce their overall academic performance. If any aspect of a student's wellbeing is reduced, this will have a negative impact on their performance, which students will have to compensate for (e.g. by working longer) or absorb (i.e. accept lower grades), with further consequent negative effects on their wellbeing. However, this also means that there are multiple steps students can take, on all four of these axes to improve their performance. For instance, students who are underperforming may wish to exercise more, sleep better and seek a better social balance, as a means of improving their energy levels, motivation, ability to concentrate and think creatively, thereby improving performance.

This clearly suggests an interlinked, transactional relationship between all aspects of wellbeing and learning, which, therefore means that universities who wish to improve the performance and \ or wellbeing of their students, must consider taking more holistic approaches.

There are numerous factors that are significant in supporting or facilitating effective learning. Race (2014: 39) identifies seven key factors for successful learning:

1. Wanting to learn;
2. Needing to learn;

3. Learning by doing;
4. Learning through feedback;
5. Making sense;
6. Verbalizing orally;
7. Learning through assessing.

The key is to develop approaches to ensure that mechanisms to support student learning and development, as well as curriculum and pedagogies, align effectively to enable each factor to flourish. Helping students to engage with creativity to deepen their learning and boost wellbeing, offers one such promising holistic approach.

Wellbeing and Creativity

There are a number of ways in which creativity and wellbeing have clear correlations, and others with less distinct, but arguably more intriguing potential for discovery and understanding.

The Creativity \ Illness Myth

The relationship between wellbeing and creativity is a much-debated topic (Abraham, 2015). Public attention has often been drawn to depictions of the 'mad genius' (Dietrich, 2014) or to tales of the tortured artist, alone in a garret toiling through cold, starvation and mental illness, much like characters in the works of Merger (2008) or Gissing (1980).

A number of authors in the field have attempted to draw links between creativity and a vulnerability to mental illness (e.g. Carson, 2013) but many of these studies have attracted significant criticism for being methodologically unsound

(Schlesinger, 2009; Dietrich, 2014). Whilst it is undoubtedly true that some eminent artists have had difficulty with their psychological wellbeing, many successful creative people do not experience mental illness and the vast majority of people who experience serious mental illness are not successfully creative and productive, certainly not while they are ill (Kaufman & Paul, 2014; Ramey & Chrysikou, 2014). The problem with the triumph over adversity model for exemplary creativity is that it is selective and presuppositional.

In addition to this, as Csikszentmihalyi (2013) points out, creative work involves two distinct stages. Others have identified these stages as divergent (the generation of multiple new thoughts and ideas leading to a 'Eureka' moment) and convergent (the drawing together, whittling down and applying of these insights) (Mednick, 1962). The subjects in Csikszentmihalyi's work point out that in the convergent phase, realising an initial idea and turning it into something that exists in the world, outside of the imagination, requires long hours of focussed, hard work. This is not something that is easy to achieve if the creator is ill, tired, hungry or in pain.

Kaufman & Paul (2014) suggest that some of the attention on the concept of the 'mad genius' may be caused by the fact that, for some people, their experience of psychotic symptoms may produce a particularly original way of viewing the world – much like the theory that, Monet's later paintings were the result of seeing the world through cataracts (Marmor, 2006). This originality causes their work to receive greater attention, so distorting our view of the field.

Nevertheless, whilst the premise that creativity emerges from adversity is clearly challengeable as typical experience, there remain too many examples of remarkable ingenuity and inventiveness born out of crisis for these to be ignored out of hand. Needs driven creativity such as that which followed the communication of the famous words, "Houston, we have a problem" in the case of the 1970 Apollo 13 mission, can

represent amongst the most remarkable peak states of human ingenuity. Perhaps recorded more routinely because of remarkable and dramatic narrative—the classic triumph over adversity trope—whilst illness or adversity themselves do not produce creativity, they can nevertheless be contexts of remarkable creative endeavour.

Positive wellbeing and creativity

The great proportion of evidence actually indicates that, for the vast majority of the population, creativity and wellbeing exist in a positive relationship with each other (Daly, et al, 2014; Dolan & Metcalfe, 2012; Kaufman & Paul, 2014; Wright & Pasco, 2014; Csikszentmihalyi, 1992), whilst some (Humes, 2011) argue for a more critical approach to the subject by highlighting the very different interpretations both of ‘creativity’ and ‘wellbeing’ in different subject contexts.

Dolan & Metcalfe (2012), for instance used an enormous data set derived from the British Household Survey to demonstrate a positive relationship between creativity and subjective wellbeing that appears to work in both directions - good wellbeing boosts creativity and creativity seems to benefit wellbeing.

Indeed, when considering the role of creativity, against the various models of wellbeing discussed earlier, it is easy to see why active engagement in creative tasks can boost wellbeing. Creativity can provide opportunities for learning, achieving and creating meaning.

Some researchers have also found that engaging in creativity can help individuals’ process potentially difficult thoughts and emotions in ways that can support good wellbeing (Ramey & Chrysikou, 2014; Smith, 2017). When confronting difficult problems, the ability to use the imagination creatively is key to being able to productively reframe the difficulty, generate

possible solutions and visualise a time beyond the existence of the current problem (Griffin & Tyrell, 2003). Indeed, much of Dweck's work (2017) has established that this ability to visualise a time in the future, when an individual and their circumstances have changed, is key to future persistence, resilience and growth.

In many ways, being able to visualise a different future is the basic act of creativity. It is the ability to visualise that brought us out of the caves and lead us to create cities, the internet and Spongebob Squarepants. Being able to maintain this ability helps us to maintain motivation, seek solutions and overcome problems. As Bobby Kennedy used to say at the end of campaign speeches, "Some men see the world as it is and ask 'why?' We see the world as it could be and ask, 'why not?'" (Schlesinger, 1978). It is this ability to foresee what is 'not yet,' that provides much of our meaning, motivation and resilience and is key to our wellbeing.

When viewed from the opposite perspective, it is also easy to see why good wellbeing would be more likely to generate productive creativity. A positive, relaxed mind is more likely to be able to draw on all of its cognitive abilities to generate new ideas (Le Doux, 1996, Goleman, 2005). Creativity demands energy, enthusiasm and dedication (Csikszentmihalyi, 2013). There are also suggestions that a high level of productivity may also increase the quality of an individual's creativity, meaning that having the physical and mental reserves to keep working is vital for someone to reach their creative potential (Ramey & Chrysikou, 2014).

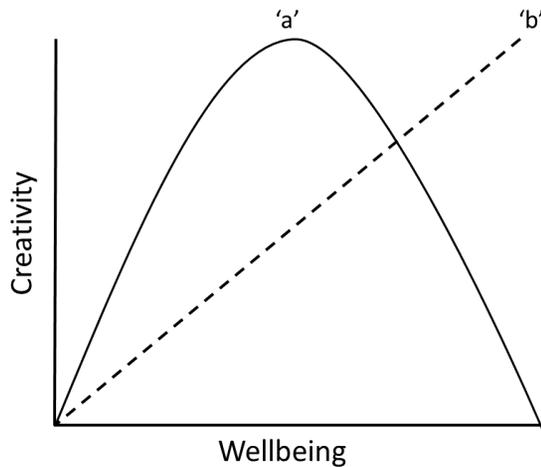


Figure 2 – Possible relationships between creativity and wellbeing

As discussed in Wilson & Brown (2015), both the potential for creativity and subsequent perception of creative authenticity and value can be influenced by the circumstances of creative activity. Considering Figure 2 above, one might argue for a general bell curve of creative potential afforded by circumstances or needs with a conceptual ‘sweet spot’ (‘a’) balance between creativity and wellbeing more likely than a conceptual model of exponential increase in creative possibility in line with wellbeing (‘b’). Remarkable needs-driven creativity can emerge from almost impossible circumstances but these are perhaps exceptions to the norm rather than representative examples of typical creativity. Equally, however, considering the notion of peak wellbeing, one might question the driver for creativity and innovation if context reflects ideal circumstances. Where wellbeing is ‘perfect’, creativity could inadvertently compromise or disturb the status quo and constitute a threat to wellbeing at least at the social scale, and motivational source to instigate change ultimately reduced overall.

To understand this, it may be necessary to separate individual and societal wellbeing. It is, for instance, possible for an individual to be in a state of good wellbeing but driven by the injustices of an ill society to create new and potentially disruptive challenges. In turn, this would provide meaning and purpose for the individual, which would underpin their own sense of wellbeing.

Creativity, Learning and Meaning - the point of Universities

Creativity, innovation and enterprise have been subject to increasing focus and attention in higher education, albeit with considerable ambiguity and uncertainty about the precise distinction between these terms, which are often used interchangeably and somewhat uncritically (Wilson & Lennox, 2013). Nevertheless, these are well-established tropes in universities whilst 'wellbeing' is a comparatively recent arrival in educational discourse and their overall relationship is subject to challenge in the literature (Humes, 2011).

Creativity and education now

At university level, learning and creativity should be obvious bedfellows. Each moment of learning is in itself an instance of small 'c' creativity, an act of personal change and growth (Kaufman & Beghetto, 2009). Nevertheless, from a distance, it would appear that our current education systems are largely the result of, what Daniel Kahneman (2012) would call, a 'substitution error.'

Robinson (2016) identifies the rise of the 'standards movement,' as being the key component that brought our current education culture into being, beginning in the 1990s. At that time, in the UK, the Labour Party were swept to power in a landslide election with a promise to focus on three priorities, 'Education, Education, Education.' Improving education was seen as the key to unlocking future growth and prosperity and to challenging inequality of opportunity (Blair, 2006). Eager politicians, policy makers and educators were, however, confronted with two complex and complicated questions – how do you improve education? And how would you know if your improvements had worked?

This is such a complex issue that there isn't even clear agreement about what education is for (Robinson, 2016). Much like the term wellbeing, 'education' is a nominalisation – it means many things to many different people. It might be suggested, for instance, that a good education should probably result in (among other things) a rounded individual, with good knowledge, the ability to respond to, analyse and solve problems, an ability to communicate effectively with others, who is ready to begin a job or career that will fulfil their potential and who can play a role as an active citizen.

Whilst this may sound reasonable, it is difficult to measure and properly define. To an extent, it is really only possible to tell if an education system is working, several years after the current cohort have moved into the real world - there being an impact evidence delay effectively rendering real-time educational analysis as if communicating across the depths of space.

It is here, one can argue, that a substitution error appears to have occurred. Faced with this complexity, those who were reforming the system seem, instead, to have looked to the measurements that already existed – namely exam results. There is some logic to this – if the education system is improving then it is reasonable to assume that exam results would improve as a result. So, the question became, not how do we improve education, but rather, how do we improve exam results?

As Kahneman (2012) demonstrates, the human mind has a preference for and will revert to simpler questions if at all possible and 'how do we improve exam results?' is clearly a much simpler question to answer and address, than 'how do we improve education?' The measurement of exam results leads to exam league tables, which were intended to drive improved performance. Unfortunately, as evidence from around the world demonstrates, a culture of performance management based on exam results, changes teaching practice and pedagogy in ways which are often unhelpful. (Hughes, Massey

& Williams, 2017; Polesel, Rice & Dulfer, 2013; Reed & Hallegarten, 2003).

There is growing evidence that these innovations have, in fact, had a narrowing effect on education overall, as schools focus more and more on prolonged test training and less on fully rounded learning (Robinson, 2016). Teachers report key elements of learning and development being squeezed out of the curriculum, to focus on test performance. A number of researchers have shown that as this rise in exam focus occurred, thinking skills, resilience and the ability to generate new ideas has fallen, (Jones, 2010; Walsh, et al, 2013; IBM, 2008).

Walter Weyns, (2016) characterises this approach as 'pre-agreed goal acquisition,' as opposed to learning. Indeed, learning seems to have disappeared from much of the education narrative to make way for performance, attainment and results.

This is particularly noteworthy for universities. When universities were originally established in Bologna and Paris, most students did not graduate with a degree and the qualification is not what they paid for – universities did not sell qualifications, they sold learning (Ruegg, 1994). Similarly, Germany thrived post-unification in 1871, not because her universities gave out lots of certificates but because the learning they drove into society and the economy led to innovation and improvement.

The current narrative, however, particularly in the UK, is that students attend university to get a degree to get a job (Collini, 2016). The focus is on the qualification and the most efficient route for the student to get the piece of paper at the end of their course.

Robinson (2016) and others (e.g. Weyns, 2016) summarise all of this by suggesting that the problem is that policy makers have attempted to enforce a linear approach onto learning,

which is an organic process that cannot successfully be made linear.

Alongside this, sits the marketization of higher education – which is itself a false premise, as the true conditions for a market can never truly exist, particularly for undergraduate study. For a market to function the consumer must understand the product, understand the choice and be able to make a rational decision to select the best product for them. But what many students think they want pre-entry, is often not what they need and most don't understand the complexity of choice presented (Weyns, 2016; Hughes, Massey & Williams, 2017) – something many final years students recognise, once they reach the end of their degree. The only way the market could truly function, would be if students had the chance to do 4 initial undergraduate degrees in 4 different universities, at which point they would then be informed consumers, capable of making an informed choice.

Instead, many students arrive at university with unrealistic expectations, prepared only for passive, surface learning, focussed on pre-agreed goal acquisition and lacking many of the key skills they require to thrive in higher education (Hughes, Massey & Williams, 2017; Kift, 2009; Harvey, et al, 2006).

The result

The impact of these developments appears to be (in the UK at least) a drop-in student wellbeing overall, with a particular increase in student mental health problems (Brown, 2016; HEFCE, 2015; NUS 2015). While reports on student mental health differ in their exact findings, the numbers in all of them are worryingly large. A HEFCE report (2015) identified that student demand for support had increased by 150%, while in an NUS survey 83% of students believed they had experienced problems with their mental health while at university. Other authors have identified that students at university have a lower

level of wellbeing than their matched peers (Reeves & Hillman, 2016). All of which has led at least one national newspaper in the UK to maintain a series entitled 'Student mental health crisis' (Guardian, 2017).

In addition, reports from academics and research in the field suggest that the focus on grades in schools has reduced students' ability to engage in deep, active learning (Grove, 2016). Rather than seeing each piece of academic work as a creative and intellectual endeavour in search of meaning, students have instead been trained to regard it as a necessary drill required for the production of a grade (Dorling, 2015).

In fact, there is good reason to assume that these two things are linked, given the lessons of Postareff's (2016) work. Not only do deep learning students have better wellbeing and generally perform better. Students who take a strategic, surface level approaches with extrinsic, grade focussed motivations are more likely to be anxious, to need the support of others to manage negative emotions and tend to achieve less.

As was pointed out above, the fact that so many students appear to be unable to maintain good wellbeing at university is particularly troubling because they are, in fact, surrounded by an environment that should support them to thrive. In most universities students are surrounded by all the resources they need to meet each element of all of the frameworks for good wellbeing set out by Seligman, Griffin & Tyrrell, The New Economics Foundation and Stiglitz. That this is not happening can only be due to either external factors or the fact that students are simply unable to make use of these resources because of poor preparation and broad cultural training that has ensured they become distressed and ill.

All of this has given rise to discussions of student resilience and the need to address and improve the level of resilience students are able to call upon. There are currently a number of funded projects in the UK embarked upon developing 'tool kits'

that universities can use to address this apparent deficit in their students (AMOSSHE, 2017).

However, this formulation is not without its critics, not least because the idea of resilience is also subject to ill definition and debate as to whether universities should actually be focussing on conceptions of 'grit,' 'character,' or 'emotional intelligence' (Seligman, 2011; Goleman, 2005). Indeed, much of the conversation surrounding this debate seems to actually be a discussion of student psychological and social health and wellbeing, rather than internal abilities and strengths (AMOSSHE, 2017).

If universities are to genuinely improve the resilience, wellbeing and learning of their students, we need a clearer, conceptual framework on which interventions and actions can be based. For this framework to be useful it must take account of the significant role that learning plays in the wellbeing of students to create a working model of 'Student Resilience.'

Thankfully, a significant amount of work has already been undertaken by a range of authors in the field to build better understanding of a many of the elements that contribute to student wellbeing and learning. However, many of the discussions of resilience do not seek to draw these elements together, in fact some seem to pit them against each other, rather than recognising them as being parts of the same thing.

The following section will outline our initial attempt to build a conceptual framework of 'Student Resilience,' drawing on a large amount of work undertaken by others, alongside our own small contributions to the field. The framework sets out a range of concepts on a spectrum from most negative to most positive. We propose that by deliberately designing interventions that help students move from negative to positive on the framework (or to maintain a positive position), universities can help students to improve their resilience, wellbeing and learning.

As Box noted (1979), all models are wrong but some are useful. We hope this framework may prove to be useful, while recognising its limitations.

A Student Resilience Framework

This framework is constructed using a series of interlinked concepts describing internal phenomenon and the impacts they can have on students. In each of the following sections we describe the most negative and most positive versions of each concept, however, we recognise that most students will exist on a continuum somewhere between these two extremes.

1. Mindset – performance as judgement vs learning as process

Dweck (2017) has written extensively on the impact of mind-set on academic learning and performance and on wellbeing. She positions the key difference as being between 'growth' mind-set and 'fixed' mind-set. Growth mindset allows for future development and ongoing improvement, while fixed mind-set tends to see attributes and skills as fixed and permanent – which therefore makes future growth impossible. (For instance, students who view intelligence as a fixed trait from birth that cannot be improved, are described as having a fixed mindset. Those who believe that their intelligence is something that can be developed over time are described as having growth mindset.)

In particular, she has looked at student self-perceptions and how they relate to learning and performance. Students with a growth mind-set will view their learning as an ongoing journey, with each assessment point an opportunity to identify progress and possible improvements. Students with a fixed mind-set will

tend to regard their academic career as a series of assessment hurdles, each of which is a judgement of them as people. Because they do not believe their skills or abilities can improve in future, all assessment outcomes are forever. If a student fails one assessment, they are likely to label themselves as a permanent failure, rather than viewing the grade in context and seeking to learn from the experience.

Her work has also demonstrated that students who view intelligence as 'fixed' tend to adopt less effective learning practices, to be less curious about their own meta-learning and to have higher levels of anxiety. This bundling together of perception, learning and anxiety is an important phenomenon for which successful interventions must account. For students to be able to enjoy academic life and achieve to their potential, they must be helped away from the idea of performance as judgement and towards learning as an ongoing and rewarding process.

2. Deep learning vs surface learning –

As was discussed above, a number of writers (Postareff, 2016; Postareff, et al, 2016; Donnison & Penn-Edwards, 2012; Dolmans, et al, 2016) have identified the importance of student approaches to learning both for academic achievement and their wellbeing. These learning approaches are broadly characterised as 'deep learning' and 'surface learning.'

In deep learning, students immerse themselves in their subject and the process of learning; they pursue increases in knowledge and understanding driven by positive emotions – enjoyment, fulfilment or passion. As part of deep learning they are likely to read and study more widely than directed, to seek debate with others about the issues they are studying and to make connections between their subject material and the wider world. Students who engage in deep learning tend to use assessments to deepen their knowledge and understanding and \ or to advance their own arguments and beliefs. In this

way their learning creates and is driven by a search for meaning.

In surface learning, students focus on the minimum level of learning required to achieve their desired grade in the required assessments. As part of this, students will tend to concentrate on memorising facts over studying for understanding and will be guided by a search for the 'right' answer, rather than pursuing meaningful learning. As a result, students will tend not to read more widely than is absolutely necessary and will be motivated only by the eventual grade – or by their fear of potentially not achieving the grade they want or need. This drives these students to seek safety, avoid risk taking and fear being wrong, limiting their learning and turning their academic journey into an experience that is fraught with danger.

As has already been discussed, of particular interest to discussions of student wellbeing is the apparent finding that not only do deep learning students achieve higher grades, they also have better wellbeing overall. Students who engage in surface learning are more likely to be anxious and generally dissatisfied (Postareff, et al, 2016).

When considering these findings alongside Dweck's work, it is easy to pair deep learning and growth mind-set and surface learning with fixed mind-set.

3. Intrinsic vs Extrinsic Motivation

Implicit in all of these discussions is the focus of student motivations. Deci & Ryan's work (1985) classifies motivation as broadly breaking into two types. Intrinsic motivation describes those things that we do as the result of internal drivers – because they bring pleasure, fulfilment, engage our passions etc. Extrinsic motivation, by contrast, is driven by a search for external reward – admiration, status, pay, title, recognition etc.

Deci & Ryan state that while we are all influenced by a mix of intrinsic and extrinsic motivation, those who are mainly driven

by intrinsic desires are more likely to be stable and fulfilled, while those who focus mainly on extrinsic desires are more likely to be anxious and dissatisfied. It is not hard to see why this would be the case. Extrinsic rewards lie outside of an individual's control, creating a greater degree of risk, more uncertainty and less genuine meaning. While, for the most part, barring disaster, meeting intrinsic desires remains within an individual's control.

This then maps to both Dweck's work and our understanding of student learning approaches. Students who are extrinsically motivated (focus on grades) have been shown to be more likely to adopt surface learning approaches and are also more likely to have fixed mindsets.

Students who are intrinsically motivated, are more likely seek fulfilment through learning and therefore to adopt deep learning approaches and to have a growth mindset.

4. Delayed gratification vs instant gratification

Walter Mischel's (2014) work has demonstrated that the ability to delay gratification in children, is a better predictor of future wellbeing and success in adulthood than academic ability or intelligence. Those who need immediate short-term gratification and reward are less able to tolerate long periods of hard labour or to respond positively to adversity.

For undergraduate students, this means that rather than engaging in deep learning and risk taking in their first two years—which is more likely to lead to better understanding, growth and final degree classification – instead, students will focus on the immediate gratification of the next grade or praise. Working through uncertainty and doubt, without immediate reward will simply be beyond them.

That need for instant gratification, the 'mashing of the pleasure button,' as Linden (2011) has called it, has been shown to

undermine wellbeing, reduce ability to manage negative emotions and increase risk of addictive behaviours.

Again, we can line this up with the discussions above – students who can delay gratification will be more able to learn deeply and a focus on intrinsic motivations and a growth mindset will allow them to overcome any adversity and maintain their own motivation, without the need for instant positive feedback.

5. Positive personal narratives and complex visions of the future vs negative personal narratives and short term focus

Smith (2017) and the narrative therapy movement (White & Epston, 2015) have reflected on the importance of our personal narratives in the creation of meaning and the maintenance of wellbeing. Individuals who have stable, flexible narratives about who they are and their place in the world, tend to have better wellbeing and are more able to derive meaning and strength from adversity. Crucially, these individuals tend to have realistic but positive views about their own strengths and their narratives can adapt to and survive being challenged by circumstances.

On the other hand, those with uncertain narratives, narratives that are overly positive or pessimistic and that are therefore, fragile and that cannot withstand challenge are more likely to have lower wellbeing.

In many ways, it is our narratives and expectations that shape our psychological responses to the world and our experiences – they guide what we chose to focus on and what we filter out.

Seligman (2011) has written about the importance of positive expectations of the future as a key element in this. However, many students do not appear to possess these strong, stable narratives and expectations of the future.

In research that Hughes has conducted with colleagues (Hughes, Massey & Williams, 2017), we found that many

students in 6th form are apparently unable to visualise the future and had an immediate short-term focus only. Teachers report that their students are unable to conjure up, in their imagination, visions or narratives about what their future might be. This short-term focus extends to their approach to tasks – important long-term tasks are relegated below less important tasks that have shorter timelines. The effects of this were to create anxiety, due to the uncertainty about their future and the undermining of preparation for university- students were unable to see what they could do to prepare and did not take up offers of help as a result.

This connects to Mischell's work on gratification and its role in prioritisation. Students, who cannot focus on the longer term, will be less able to engage in deep learning that has longer term rewards and will focus instead on the short term immediate requirements that can be seen clearly.

6. Socially confident, connected and comfortable alone vs socially anxious and vulnerable to isolation and loneliness

A significant number of writers have reflected on the negative impact that loneliness and social isolation can have on wellbeing. Pinker (2015) has suggested a role for social connectedness in extending life span, while Cacioppo & Patrick (2009) have identified that loneliness reduces immunity, impairs cognitive function and increases the risk of physical illness. Key to this phenomenon is the fact that the determining factor is not the amount of time that someone spends alone but rather their perception of themselves as being lonely – or not. As soon as someone 'feels lonely' the negative impacts begin. This again highlights the importance of personal narrative in determining wellbeing.

Of particular note for universities is the apparent finding that once someone feels lonely, the potential positive impact of any intervention is reduced. Helping students to avoid loneliness (but not time alone) is therefore an important consideration.

In other work conducted by Hughes with colleagues (Hughes & Smail, 2015), we identified that new students are predominantly focussed on socialisation during the first weeks of term. Students, who had socialised well, identified this as being an important factor in settling. Students who felt lonely identified this as problematic. This is supported by much of Tinto's (2013) work, which has highlighted the role of social integration in successful student transition into university.

However, some research, including our own, (Hughes, Massey & Williams, 2017) suggests that many students are arriving at university without the necessary skills to meet their social needs. This lack has the potential to undermine their sense of belonging, wellbeing and (given the impact of loneliness of cognitive function) academic performance.

7. Meet needs in balance vs cannot meet needs

As discussed above, needs theorists posit the belief that distress occurs because individuals cannot meet their underlying needs in balance. The barriers to meeting these needs can be environmental, due to a lack of key skills or because of physical, genetic or psychological impairments.

From the discussion above it is easy to see how a fixed mindset, extrinsic motivation, an inability to properly consider the future and a need for instant gratification could act as psychological barriers to a student being able to meet their needs. In addition, a lack of social or academic skills could undermine their ability to meet social needs and their sense of competence and achievement.

Added to this, is a consideration of physical needs. As was outlined in Fig1 physical health also plays a role in academic performance as well as directly influencing psychological and social health. If students are unable to manage practical tasks such as balancing their time, sleeping well, eating healthily etc. then this too will impact on their wellbeing and performance. A

tired, poorly fed and ill student will also have fewer reserves to draw upon in response to adversity.

Our research suggests that many students are not equipped to manage these responsibilities at the point of leaving school – partly because their inability to consider the future, means that they have not prioritised developing necessary skills.

These elements can then be seen to have specific outcomes for student behaviour, performance and wellbeing.

1. Confidence and flow vs anxiety and procrastination

A number of authors including Csikszentmihalyi (1992) have highlighted the importance of confidence and what he terms 'flow' for learning and creative thinking. Flow is defined as a state of complete absorption, in which people are able to perform at the peak of their abilities, delivering enhanced sense of purpose and wellbeing. Flow is also something that has to be worked for and requires a degree of sustainable challenge.

This clearly echoes research concerning deep learning – in many ways flow can be seen as a product of a deep learning approach.

In this way, we can see that students who are confident, have growth mind set, learn deeply and focus on the longer term can achieve flow, which in turn will improve performance and wellbeing.

Alternatively, students who are experiencing anxiety will find that their cognition is disrupted, concentration will be more difficult and they will have reduced access to their imagination (Le Doux, 1996). In this circumstance, academic learning is unlikely to enhance wellbeing and may in fact become a source of fear. Because fear is a form of pain and as humans we are programmed to avoid pain, students may then begin to avoid academic work – in other words, to procrastinate.

This anxiety may initially be created by a schooling system that pushes students towards surface learning and perfectionism, fixed mind sets and extrinsic motivation.

However, research into anxiety also highlights that avoidance behaviours tend to increase anxiety over time (Griffin & Tyrrell, 2003), so that students can become locked in a self-perpetuating feedback loop of anxiety-procrastination-increased anxiety. Finding ways to break this loop for these students is therefore crucial.

2. Persist and overcome difficulty vs think about giving up

The Unite report into student resilience (2016) identified that emotional experience is a better predictor of whether or not students consider dropping out of university than demographic or academic data.

Many of the factors discussed above will have a bearing on this emotional experience and the ability of students to respond to adversity. A number of authors have reflected on the fact that the ability, to respond to set backs, requires a level of emotional literacy, self-control, the ability to self-sooth, reframe the current experience and fit adversity into a healthy personal narrative that takes a long-term view of the future (Goleman, 2005; Seligman; 2011; Mischel, 2014; Smith, 2017).

The responses of students to set backs (for this example we will use a student receiving a disappointing grade) can be broken down into the following process.

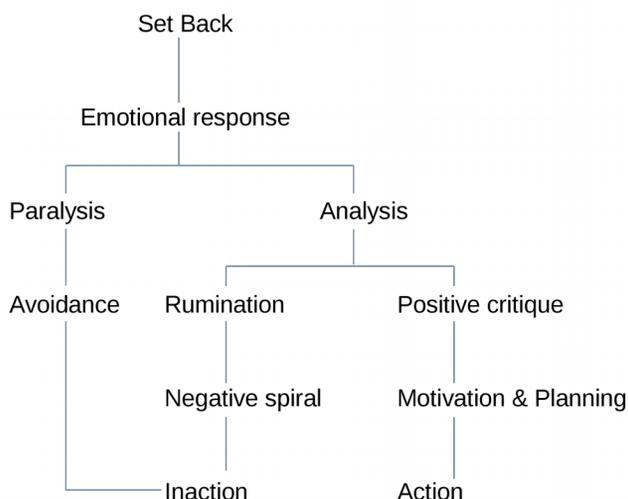


Figure 3. Student setback response process

The adverse event (the poor grade) will first produce an emotional response (see fig 3). If the student regards this as natural and can accept the initial emotion, they will be more able to process the experience and self-soothe, without adding additional negative emotions, such as guilt.

Students who cannot process the emotion in this way, may find themselves experiencing layers of negative feelings and thoughts associated with failure, anxiety, guilt and despair.

Responses from here break broadly into two areas, Paralysis and Analysis, with Analysis breaking down into two further areas.

In Paralysis, students who have difficulty positively processing the experience, can adopt avoidant, ‘freeze’ related behaviour. They may attempt to push the set back out of their mind by distraction or self-medicating, are unlikely to use or read feedback provided by their tutor and may begin to avoid other

academic work that reminds them of the poor grade they have received.

In Analysis, students will engage in thinking about what has happened, which, if negative, will lead to Rumination or if positive will result in Positive Critique.

In Rumination, students will focus on the negative aspects of what has happened, often with self-critical thoughts or thoughts about how others are to blame for their predicament. Students may add other negative experiences to their current setback to construct an overarching negative narrative that runs into their future, depriving them of the hope of future success. Rumination is recognised as being a thinking process that is key in maintaining depression (Griffin & Tyrrell, 2003).

Alternatively, in Positive Critique, students will accept and process their initial emotional response and focus on what they can learn. They may pay close attention to the feedback they have received or seek out tutors for further learning.

Rumination and Paralysis both lead to inaction (in terms of students taking positive steps) – there is no improvement in wellbeing or future performance.

Positive Critique leads to learning, increased control and better wellbeing.

10. Able to manage own emotions vs seek others to absorb negative emotions

These responses to adversity are further supported by the work of Postareff and her colleagues (2016 & Postareff, et al, 2016) have identified intriguing connections that suggest surface learners are more likely to need others to help them manage negative emotions. This is consistent with findings in some of our research that suggested that many students seek out authority figures to help them resolve emotional and practical difficulties (Hughes, Massey & Williams, 2017).

This is not to suggest that appropriate help seeking when necessary is a sign of weakness or a lack of resilience (in fact it can be the opposite). But if students cannot absorb normal, day-to-day ups and downs without relying on others to resolve their problems, it leaves them vulnerable and unable to feel in control of normal experiences. This in turn can undermine their ability to take responsibility for their own behaviours and achievements, thereby impeding the possibility of future growth.

11. Engaged in creative thought and practice vs. creatively inhibited

As has been discussed above, academic learning and the production of academic work is essentially a creative process. Academic assignments at undergraduate level and above, require creative thinking to identify and solve problems, synthesise research, develop approaches to evaluating evidence and reach conclusions. Csikszentmihalyi and others have pointed out that even in professions not thought of as 'creative,' (e.g. engineering, biology.) a high level of creativity is required at the upper levels, to develop new ways of testing ideas and solving problems.

Students who are intrinsically motivated by their subject and who use their assignments to investigate issues about which they are passionate (learning deeply), will be more able to enter flow and engage creatively with their work. These students will also be more able to consider, experiment with and refine their own creative process, engaging with meta-learning and performance.

Students who are extrinsically motivated and engaged in surface learning, will instead seek the 'right answer.' This search for perfection is inimical to creativity, which is a process beset by uncertainty and messiness. By seeking the 'correct answer' students are less likely trust their own creative instincts

and instead to seek other authority – “what does my tutor want me to say?”

This in turn is likely to create anxiety within these students, which as has already been discussed, will disrupt their thinking and performance.

Summary

This then provides a framework on which universities can focus developmental models of intervention. Support or education that seeks to move students from the Negative end of the spectrum towards the Positive (see fig 3) is likely to improve wellbeing, learning and long-term performance. The implications of this will be discussed further when we turn to changes that could be made to the Higher Education sector.

Negative -**+ Positive**

Fixed Mind Set

Growth Mind Set

Performance as judgement

Learning as process

Surface learning

Deep learning

Extrinsic focus of motivation

Intrinsic focus of motivation

Instant gratification

Delay gratification

Limiting personal narrative

Empowering personal narrative

Short term, narrow focus and rigid expectations

Can visualise multiple possible, positive futures

Poor social skills – vulnerable to feeling isolated

Socially confident, connected and comfortable alone

Cannot meet needs

Needs met in balance

Anxiety and procrastination

Confidence and flow

Think about giving up

Persist and overcome difficulty

Seek others to absorb negative emotions

Manage own emotions

Creativity inhibited

Engaged in creative thought and practice

Seek safety

Seek meaning



Fig 4. Student resilience framework

The response of Universities

Provision of services

The typical response from universities, particularly those in the UK, has been to provide a range of services that students can access to address issues which may be having a negative impact on their wellbeing. These services differ in range and nomenclature from institution to institution but often include some combination of health services, counselling services, financial support, Chaplaincies and disability services (HEFCE, 2015).

Much of this support has been predicated on a traditional, reactive 'deficiency based model' (Quinn, 2005; Harvey, Drew & Smith, 2006). Although some universities have sought to develop more proactive outreach interventions, these tend to be regarded as augmentations to the main support provided and often do not alter the structure or practice of the main body of the service.

Within the most traditional versions of this model, these services are made available for students to access themselves. Students become aware of them either through internal marketing, word of mouth or referral from some other part of the university (e.g. by a tutor or manager of their hall of residence).

For a student to actually receive this support, three criteria must be fulfilled.

1. The student must be able to identify that they need and may benefit from support. Many students normalise their experiences and are therefore unaware of the impact of anxiety, poor sleep etc. or blame themselves for their poor wellbeing or underperformance.
2. The student must be able to identify, understand and find the relevant service. Universities are often complex institutions with their own language and titles that can be difficult to navigate, particularly for students from non-traditional

populations. In addition, research suggests that traditional forms of raising student awareness of support (e.g. induction talks are often ineffective) (Retention Grants Programme, 2010; Hughes, 2016).

3. The student must believe that the support might be able to improve their situation. It is a common feature of many phenomenon, such as depressed thinking, loneliness, academic anxiety etc. that the person does not believe anything can be done to help them (e.g. see Cacioppo & Patrick, 2009). Accessing a service may therefore seem to be a waste of time and effort.

Within the UK, universities have also placed significant focus on students who arrive with a declared need or vulnerability to withdrawal or underachievement, such as disabled students, care leavers or BAME students. In part, this has been driven by funding models and action to ensure social justice.

As an example of this, the Disabled Students Allowance is a funding package provided by government to support universities to make adjustments and provide long-term support to disabled students, to ensure that their disability does not unfairly disadvantage their academic learning and performance. This is based largely on a medicalized model and focuses on making allowances for the impact of a disability or providing support to overcome a 'deficiency,' e.g. providing a note taker for students with dyslexia, who might otherwise not be able to take good quality notes of their own.

Government reforms have recently removed a proportion of this funding and universities have provided a range of responses to this – however, it is notable that many have chosen to simply fill the funding gap and maintain the same types of support on the same deficit model.

Problems

Although many students are undoubtedly helped by these services, national reports suggest that in many places they are under strain and subject to increasing critique (Brown, 2016). A number of reports have suggested that the rise of mental illness in the student population has overwhelmed resource, with waiting lists of up to 12 weeks, for counselling, in some universities (Marsh, 2017).

A number of voices have also suggested that a model which fixes a student's deficiencies, at the point of entry, as permanent and provides the same level of support for their entire academic career, rather than seeking to support the student to develop their own skills, strategies and resilience, is disempowering and unfair, as it does not prepare them for the world beyond education.

There is also a national acknowledgement that there is often a significant gap between Student Services and academic activity. Support professionals and academics often speak in different languages and in many universities, have little contact with each other (Hughes, 2016b). As a result, the support provided can seem divorced from the academic learning students are undertaking.

There is also a low level of research within the Student Services sector and little evidence of effectiveness or of variations of impact between services or approaches.

Personal Tutors

Alongside or as an alternative to the provision of services, many universities have or are reintroducing personal tutor schemes. In such schemes academics will be allocated a set number of students to 'guide and support.' While personal tutors are usually positioned as a source of academic

guidance, there is often an explicit or implicit expectation that they will have a 'pastoral role,' towards their tutees.

Personal tutor schemes vary widely between institutions and the role is often subject to poor definition (McFarlane, 2016). Tutors may have no formal training in supporting students or in responding to specific student problems, such as mental illness (Luck, 2010; Gardner & Lane, 2010). Confusion about boundaries, the limits of their role and confidentiality are commonly identified as problems (McFarlane, 2016).

This can leave tutors in an unenviable position of feeling unprepared, overwhelmed and unsure who they can or should turn to when presented with a difficult student problem (Luck, 2010).

Adaptations to teaching

A number of universities have also identified a desire to address some of these concerns by reforming teaching practice. In particular, there has been much debate about 'students as partners,' 'students as co-designers of curriculum,' and the introduction of discovery learning to replace 'the sage on the stage' (Kirschner, Sweller & Clark, 2006; Bovill, Cook-Sather & Felten, 2011)

However, as a number of authors have pointed out (Hattie & Yates, 2013; De Bruyckere, Kirschner & Hulshof, 2015), large scale studies have demonstrated that when discovery learning is used alone, it tends to increase inequality. Students who have received a sophisticated education already and who have been prepared for active learning, thrive with discovery learning. Students who have had a more passive education and who have not been equipped with the relevant pre-knowledge and skills, are unable to engage in the tasks and so underachieve.

This disadvantaging of the already disadvantaged, is likely to further undermine the wellbeing and learning of those students who most need support.

A potential future

As was stated above, creativity is, in part, the act of being able to see that which does not yet exist.

In this chapter, we will now take a creative leap, based on the discussions above, to picture how the Higher Education system could respond to the need to support student wellbeing and learning, through engagement with creativity and the creative process.

Professional Services and Academics

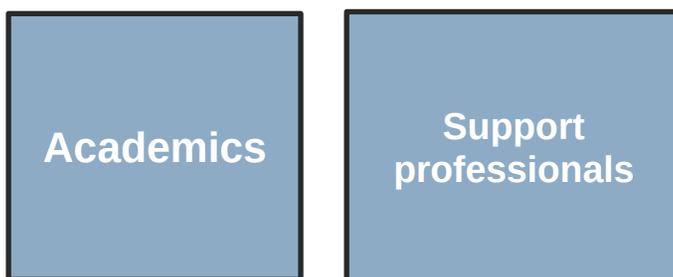
This chapter began by considering the apparent reduction in the wellbeing of students, increased mental illness and lowered personal resilience. Given the recentness of this phenomenon, it is clear that the root cause cannot be some form of genetic evolution. This problem is human made. It, therefore, can be fixed by human endeavour. Given the role of universities in educating their own students and the world, they are perfectly positioned to begin to make this change.

However, it should also be clear that traditional models of support are not capable of resolving this problem.

As was demonstrated above, student learning, lifestyle, mindset, skills and wellbeing are intricately interlinked. The wellbeing and learning of students cannot be separated into neat departmental boxes - with academic tutors responsible for learning and professional services responsible for wellbeing. Such a model leaves to chance whether or not students discover and access the support they need. It also ensures that wellbeing interventions can be delivered without considering academic context and that academic learning and teaching can

be delivered without considering the wellbeing of students. Thus, reducing effectiveness on both sides.

Clearly defined boundaries



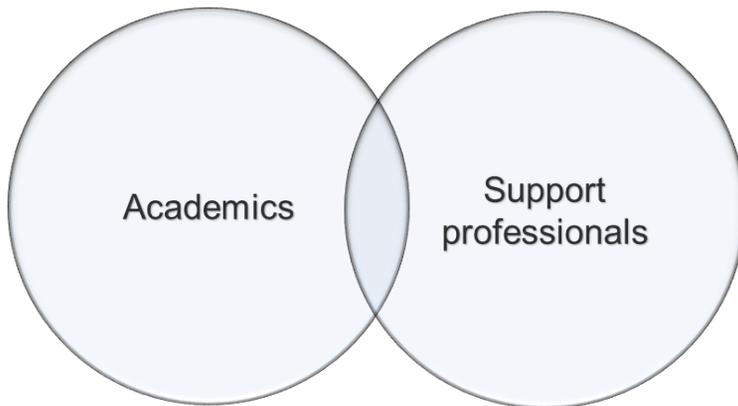
Create gaps students can fall into

Figure 5. Traditional relationship between student services and academics

In addition, if universities adopt this approach, then there is no holistic overview of the whole student experience.

Instead, universities must be remodelled to ensure a clear and consistent overlap between academic and professional services and between student learning and student wellbeing.

Overlap of interests, practices and principles focussed on learning



But still with clearly defined boundaries

Figure 6. Collaborative model of relationship between academics and student services

This is not to argue that there should be no boundaries between support professionals and academics. Clearly the content of counselling sessions must remain confidential between the counsellor and the student. A degree of guaranteed confidentiality is crucial to ensure services remain accessible - if students believe problems will be reported back to their academics, they will be less likely to access support.

It is simply that these clear boundaries should be positioned so that there is clear overlap, ensuring that students are engaged with their own wellbeing, understand the links between wellbeing and learning and have clear access to support if needed.

The Curriculum

The most obvious place for this overlap to take place is within the curriculum. The curriculum is the guaranteed space, which all students will encounter, and curriculum that supports wellbeing and learning, therefore, has the ability to impact on all students.

Following this logic, on the face of it, the simplest way to utilise the curriculum for this purpose, would be to ensure that all students attend classes that help them to better understand wellbeing and learning and to identify steps they can take to improve their own wellbeing. Indeed, a number of universities in the UK are seeking to adopt versions of this approach and in the US, some universities have used the First Year Seminar as an opportunity to do just this.

However, this approach, on its own, is likely to be ineffective. Research has shown that simply educating people about their health, does not lead to healthy behaviour change (Marteau, Hollands & Fletcher, 2012). Knowing what healthy behaviour looks like and how it can be achieved may be a prerequisite for healthy change but it does not guarantee change in itself - otherwise more people would eat 5 portions of fruit and veg' a day, exercise for 150 minutes a week and no one would smoke nicotine.

Instead, individuals must be emotionally motivated by deeper factors. As others have pointed out, the word 'motion' is in 'emotion' because they come from the same root word (Griffin & Tyrrell, 2003). Motivation for change grows from emotion that is engaged by meaning.

Creative learning

Drawing all of this together, we propose a curriculum that truly supports wellbeing and learning, based on our model for student resilience, using creativity as the key vehicle for growth.

We suggest that such a curriculum would help students to develop growth mind-set, intrinsic motivation and deep learning; it would provide students with a clear understanding of their own underlying physical and emotional needs and ways by which these needs can be met to boost learning; it would support student socialisation and help students to develop new, more empowering narratives about themselves, their ambitions and their place in the world. Above all, such a curriculum would eschew grade gathering in favour of the development of meaning.

In this way, students would be able to develop their own skills and insights, as a natural part of their student experience, so that they can enhance and maintain their wellbeing, (no matter which model of wellbeing one adopts).

Key to this, we suggest, is helping students to move away from the narrative of academic performance, that seeks 'correct' answers and towards an approach to learning that is creative and meaningful. As has already been shown above, active engagement in creative endeavours enhances wellbeing overall. Creativity linked to learning, should therefore provide an ideal platform on which to improve student wellbeing.

What Do We Mean by a Creative Approach to Learning?

It is undoubtedly true that many educators may feel uncomfortable with the idea of learning being a truly creative endeavour. Academics in engineering, science or technology related subjects may object that their students cannot simply be loosely creative, they must instead, learn the rules and discipline of their subject with academic rigour. The calculations that determine how a bridge is built must be correct - they cannot just be creatively pleasing.

We do not deny this. However, Csikszentmihalyi (2013), amongst others, has written at length about the nature of the creative process. He identifies that creativity is almost always embedded within a rigorous discipline. Music, painting, dance and acting are all recognisable creative occupations and yet each is deeply rooted in practice, technique and language. Each discipline has its rules and each discipline is grounded in its own history. True moments of large C creativity are in part, at least, a response to learning that has gone before.

Indeed, neurological work by Heilman, Nadeau & Beaversdorf (2003), has identified that one of the three key elements that differentiate highly creative people from others is a high degree of specialist knowledge.

Whilst it is of course true that a bridge must be built using the correct calculations, which does not mean that the engineering solution behind the bridge cannot be creative. The Clifton Suspension Bridge was an extraordinary feat of engineering, it was also a huge creative endeavour that pushed the bounds of engineering beyond what had previously been achieved. In conceiving the bridge, Brunel was able to visualise that which had not previously existed.

Therefore, we suggest that creative learning must be anchored firmly within each subject discipline. Supplementary learning that does not have a clear connection to the student's subject discipline, will lack relevance and meaning and will therefore be

less effective. However, rather than learning simply for the sake of retaining valuable knowledge, students should be encouraged to learn for meaning and future application - and to consider how they might use this knowledge to create solutions yet unseen in the future.

To achieve this curriculum design will have to depart from, what Robinson & Aronica (2016) describe as, the mechanised, linear view of education. They argue that most education in the western world is predicated on a factory based model that sees an input of knowledge and an output of 'educated students.' However, many authors have identified that learning is a non-linear process (Weynes, 2016). Exposing students to facts in an apparently logical order does not guarantee increased knowledge, understanding or insight. Therefore, curriculum that is solely designed on this basis is clearly inadequate to the task.

It is for this reason that we argue for curriculum that is designed to deliberately develop students along our suggested model of student resilience (or something similar) but that does so, rooted in subject discipline.

To achieve this will require students to engage in forms of meta-learning. We suggest that this can be addressed by building an understanding of the principles of creativity and the creative process, as they relate to each specific area of study. A number of authors have attempted to describe the process of creativity and a number of competing models exist (although many contain overlaps and commonalities). For our purposes, it does not matter which model is adopted (and some may be more useful for some disciplines than others), providing they help students gain an understanding of certain key principles and that students are guided into adopting these principles as part of their learning process through practical application.

Kift's (2009) work on scaffolded learning and first year pedagogy provides clear guidance on how this can be

accomplished. She argues that universities must make no assumptions about the skills with which students will arrive. If students need particular knowledge or skills to succeed within their discipline, then the curriculum design should ensure they can acquire these within their programme. To do this, academic programmes should adopt scaffolded learning, providing high levels of challenge coupled with high levels of support, that is gradually removed as students become more skilled and confident. Following this model, for each of the principles below we argue that students should receive explicit instruction and practical learning opportunities.

1. Delay answer finding

As has already been discussed, many students will seek correct answers as quickly as possible and may become uncomfortable or anxious if they cannot quickly find solutions. Therefore, helping students to understand that initial impulses are likely to be based on incomplete information, previous biases and incorrect assumptions is a key part of their learning. In relation to this, a number of participants in Csikszentmihalyi's (2013) work describe the need for creative individuals to be comfortable with 'not knowing' for a period of time.

2. Defining the problem and engaging emotionally

The redefinition of a problem can in itself be a creative and world changing act. The redefinition of disability as a medical problem to a social problem, lead to the opening up of significant new cultural and practical solutions for the difficulties faced by many disabled people. Helping students to slow down in their rush for an answer, to properly consider the phenomenon under consideration and to find their own definition for the problem - to design their own question - can increase understanding of their discipline and increase their sense of control. This can also support the development of growth mind-set and provide links from their subject to intrinsic motivation.

Defining their own question, will allow students to make an intrinsic emotional connection to each module of learning or piece of assessment. By engaging positive emotions with the problem, students will be motivated to seek solutions, rather than focussing on grade gathering.

3. Deepening knowledge

As has already been explored, creativity is embedded in discipline knowledge. However, true creative endeavour requires deep knowledge and understanding, to create the conditions for new thought to emerge. A surface retention of facts will not provide the deeper level of cognitive contemplation required to produce moments of insight.

Students should therefore be guided to understand their defined problems better by deepening their understanding of their discipline so that they are able to question, compare and evaluate the knowledge base of their discipline. This will allow them to identify inconsistencies in theory, poor quality evidence and cultural assumptions, thereby creating a space for new thought.

It is this which should guide student's research and engagement with learning, meeting their intrinsic needs, supporting growth mind-set and increasing their confidence within their own discipline.

4. Incubation and wellbeing to generate ideas and understanding

The generation of new ideas often relies on a period of incubation. New information must be embedded into long term memory, connected to old information and reorganised in the unconscious to allow new thoughts to emerge. For many students, this may feel like another period of 'doing little.' However, incubation also relies on appropriate self-management and numerous activities have been shown to improve incubation and thought.

Sleep, for instance, has been shown to play a crucial role in memory consolidation and problem solving (Cai, et al, 2009; Sio, Monaghan & Ormerod, 2012). Exercise, diet and positive motivation can also boost the brain's creative effectiveness (e.g. Raspberry, et al, 2009). Educating students in the importance of meeting their physical needs during the creative process, at the point when they may feel a need to find something they can do, to actively contribute to the furtherance of their learning, is likely to increase the likelihood of their acting and engaging in healthier behaviours.

This point in the process can also be used to help students to develop skills to manage negative thoughts and emotions that may block their learning and creativity - such as anxiety. In this way, students can develop a sense of mastery over their own emotions and lifestyle, increasing their confidence and self-belief and positively enhancing their own narratives.

5. Divergence

Deliberate, practiced divergence, the production of multiple ideas in response to a specific question, can enhance student imagination, enabling them to improve their ability to visualise a range of possible futures. Encouraging students to find multiple possible ideas can also help to wean students off the concept of 'eternal correctness' and away from paralysing perfectionism. Freed from the tyranny of needing to find the 'right answer' straight away, students will be more able to access flow states, that deepen learning and improve wellbeing overall.

The period of divergence can be aided by social learning, debate and open critique. This requires the creation of a safe social space in which to explore new ideas in a constructive way - new ideas, however valuable are vulnerable at conception and will perish in a harsh environment, even if they contained promising possibilities.

Helping students to develop the skills for supportive challenge (both to give and to receive), can increase their social literacy generally and thereby increase their social confidence.

6. Review and acknowledge development

Before students start to refine their ideas, they can be encouraged to review their progress so far, acknowledging the learning and growth that has taken place, any difficulties they have encountered and the journey still to travel. This can help student develop their self-reflection abilities, positively alter their personal narratives and contribute to growth mind-set.

7. Converge

Having developed a range of possible ideas, students can then be guided in the process of testing and evolving their thoughts. This is the period in which the application of hard work is required to develop ideas into a solid piece of work and as has previously been discussed, for students to negotiate this period successfully they must also maintain their wellbeing, ensuring their needs are being met in balance.

Inevitably, this converging period contains moments of disappointment, failure and doubt. Helping students to normalise this and develop skills to respond positively will increase their capacity to delay gratification and respond to adversity positively.

8. Re-evaluation and further incubation

Key to ensuring that students can manage this part of the process successfully, is ensuring that they recognise that this is still a period of learning - not solely one of production. Even at this late stage they can be open to new insights and eureka moments that transform their understanding. Staying focussed on the learning aspect here, will again keep them engaged in growth minded, intrinsic, deep learning activity.

9. Refinement

Finally, students can complete by refining their ideas - recognising that creative work is never complete, only abandoned.

Conclusion: Implications for Universities

This model also raises questions about aspects of higher education pedagogy and in particular approaches to assessment. Widely recognised as amongst the most inhibiting aspects of higher education study, with sanctions and often punitive measures imposed around assessment activity so as to maintain suitable rigour and notional parity of standards and fairness, universities should be encouraged to explore more diagnostic and ipsative assessment practices so as to focus on the development of individual learners and their creative potential. This would also serve to scaffold the experience of initial development in preparation for more traditional normative assessment experience.

In the introduction to this chapter we highlighted the focus of wellbeing at the level of the individual, organizational, and social. Traditional assumptions about education progress and development that focus on creativity as a phenomenon emerging late in higher education, if at all, need to be challenged. Rethinking Maslow's hierarchy of needs, simply placing consideration of creativity as basic or psychological need rather than a potential consequence of these needs being met in balance, can fundamentally transform conceptions of educational process and experience. Rather than hoping that creativity emerges over time, this might be the most effective starting point for any educational experience. After all, if students and academics within the academic community are confident in their creativity, resilience and wellbeing will undoubtedly follow. If creativity and wellbeing are fully developed, universities can perform more effectively as a power source for creativity and wellbeing in communities and society.

To deliver on this vision it is necessary for many universities to reconceptualise how they are organised. It would be unfair to expect many subject-based academics to be able to deliver on this model without relevant support. Most academics will not necessarily have the insight, knowledge or skills to develop or deliver curriculum on this model by themselves. Therefore, there must be closer collaboration between academics and professional services within the curriculum and in the classroom.

This requires a redefinition of the role of Student Services (or Student Affairs), to be more involved within teaching and learning providing clearer links into support services when they are needed and supporting academics to develop curriculum that supports wellbeing. This also highlights further value in the development of academic staff and student partnership working so as to develop the most effective lines of experience communication and adjustments for the personalisation of educational process.

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