

Fostering Self-Efficacy in Higher Education Students

Laura Ritchie

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To Ben, thank you for believing in me always.

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Preface

Self-efficacy beliefs are at the core of every action that we all, whether teacher or student, undertake. These specific beliefs about perceptions of capability as related to individual tasks are not one of the most commonly talked about qualities of the self, but self-efficacy beliefs are fundamental to everything. As teachers in higher education, we strive to put students at the centre of learning and teaching, and understanding the formation and role of self-beliefs can have a huge impact on this process. Developing self-efficacy happens through communication and active learning, which facilitates a two-way interaction between learners and teachers. This fosters trust, so teachers and learners can risk having moments of vulnerability where we are willing to expand learning horizons and grow. Sometimes, perhaps, there will not instantly be success, but with guidance and reflection, these moments allow exploration, and as learners progress they can develop security in their beliefs through positive experiences. With established self-efficacy beliefs, students will have both the foundation and tools to successfully continue their learning after leaving the higher education environment.

As I became a more experienced teacher and researcher within higher education, I noticed there was not necessarily an equal focus on student self-efficacy beliefs across subjects. In some areas, students and teachers actively pursued building self-beliefs and discuss this openly, whereas in other areas self-efficacy was important but not spoken about, and in yet other disciplines it was not clear whether these beliefs were recognised as an essential part of the learning experience or not. Self-efficacy research continues to increase and find links with learning and performance that demonstrate its importance across disciplines.

This book explains and contextualises self-efficacy theoretically and within various teaching contexts, bringing a practical understanding of how these beliefs contribute to students' outlook, learning experiences, and achievement. Different types of learning in higher education are presented in Chapter 1, and a precedent is set for why it is important for teachers and students to be aware of self-efficacy and to cultivate these beliefs. Chapter 2 explains self-efficacy theory, and subsequent chapters address different practical ways that students and teachers can develop aspects of self-efficacy: through communication in Chapter 3, self-regulation and an awareness of learning process in Chapter 4, and the influence of class learning experiences in Chapter 5. The outward face of achievement, as it looks toward employment,

is presented in Chapter 6. Finally, Chapter 7 challenges all of us to continue to develop our self-efficacy through learning, teaching, and professional life. Vignettes and case studies are drawn from across disciplines and presented throughout the book to demonstrate various practical applications of the principles and theory.

To avoid confusion with the many cultural gradations and designations of junior/senior teacher/lecturer, all who teach students in the context of higher education are in this book referred to as teachers. Similarly, the term class or classroom is used to avoid the exclusivity that can happen by designating a specific lecture, seminar, or class space.

There is no one, single answer that provides a definitive guide for how to foster these beliefs in all situations. Teachers are challenged to be active, demonstrating learning by being learners themselves, and working to allow themselves to be seen by their students as positive examples not only as teachers but also as learners. This volume provides an understanding of the nature of self-efficacy and the ways it can be influenced, developed, and reinforced, and it gives teachers the tools to actively facilitate student self-belief through learning and teaching.

Series Editor's Preface

► **Palgrave Teaching and Learning**

The Palgrave Teaching and Learning series for all who care about teaching and learning in higher education is designed with the express aim of providing useful, relevant, current, and helpful guidance on key issues in learning and teaching in the tertiary/post compulsory education sector. This is an area of rapid change, with higher education institutions reviewing and often implementing significant alterations in the ways they design, deliver, and assess the curriculum, taking into account not just innovations in how content is being delivered and supported, particularly through technological means, but also the changing relationships between academics and their students. The role of the teacher in higher education needs to be reconsidered when students can freely access content worldwide and seek accreditation and recognition of learning by local, national, or international providers (and may indeed prefer to do so). Internationally, students are becoming progressively more liable for the payment of fees, as higher education becomes seen as less of a public good and more of a private one, and this too changes the nature of the transaction. In many nations, the proportion of the population undertaking higher education is increasing, with consequent rethinking required on levels of independence and autonomy we can expect from sometimes formerly disadvantaged students.

Texts in this series address these and other emergent imperatives, with a deliberately international focus. The particular issues addressed in this book around fostering self-efficacy are ones that have particular currency at a time when we are encouraging students to engage ever more proactively in the learning process, so I am delighted to see this book in the series. Laura Ritchie is a UK National Teaching Fellow, so demonstrably an innovative, scholarly, and creative academic who inspires and enthuses others through her own creative spirit. I am delighted to include this volume in the Palgrave Teaching and Learning series.

Sally Brown
March 2015

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1 The teaching environment in higher education

This chapter maps the landscape of learning within higher education, and the impact of the physical environment on learning and teaching is considered. There is a discussion of the understanding of excellence in education and the practicalities of achieving this by utilising resources to create situations where students and staff can flourish. A shift in perspective is encouraged with the introduction of the idea that academic work, including teaching and assessment, is like a performance that requires preparation and rehearsal. The teacher is called to be an active participant in teaching and learning processes through engagement, facilitation, and learning.

Learning happens everywhere. As thinking, breathing people experience their everyday lives they are exposed to countless situations where learning can happen. In higher education, teachers are privileged to be in a position where students come to learn. They *choose* to come. Education is required for youths, but applying to continue learning in higher education is a wilful choice made by students, and for teachers this presents a unique opportunity to shape and guide students' personal and intellectual development.

Learning can happen within lectures, in tutorials, among peers, in the dining hall, on the bus home, or in the space of someone's mind. Thinking about teaching in higher education conjures many different images, drawn from first-hand experiences, research, and of course, the media. A caricature might include a large lecture hall with someone wisely professing from a lectern or perhaps in front of a screen, and rows and rows of students listening intently or hunched over and frantically scribbling notes. Gerstein (2014) describes this old way of learning as being based on three *Rs*: receiving, responding, and regurgitating, where all students listen, copy notes down, and repeat information back. Fortunately much of that scenario is now archaic, but elements of the archetypal lecture with the direct transfer of knowledge still exists (Feden, 2012), and lecturing is one of the most prevalent forms of teaching in higher education (Smith & Valentine, 2012; Weimer, 2013). Teachers face challenges every day, whether with the group size, the room, the learning interface, or even their own unrecognised habit. In the world of that caricature, the lecturer held the knowledge and the students came, often to study

with that particular person, to glean something about their subject. Because teachers are often bound by a given curriculum, and whether it is purposely designed by them or fixed by someone else to comply with requirements for that subject area, this can result in a limited approach to developing teaching practices.

Orienting ourselves towards excellence means constantly and actively improving the learning and teaching experience. Transparency of communication, inspiration for all learners, sustained motivation, transferrable meaning, and achievement are all qualities that are desired and found where education is at its best. Belief, motivation, creativity, and the skills to self-teach and effectively self-regulate learning can be evidenced in excellent teaching across various settings and disciplines. The underlying skills of decoding, analysing, organising, planning, and executing are universal. As we enhance our interface and work to understand the impact of learning on both attainment and, equally importantly, on each person as they develop, we step nearer to achieving this in our own teaching. When we allow ourselves to be open to new methodologies, and look beyond the context of the daily setting, to consider the underlying learning processes between the teacher and the student, we can unlock the best practice from across disciplines to enhance our own delivery.

► **Critical distinctions: The push and pull of learning**

A teacher can tell a student something, and there may or may not be understanding. If a series of instructions are given and it is clear that students are meant to follow those directions to completion, as a required task, then it is likely that they will do just that. This is especially likely as the students in question have specifically chosen their course, and have likely invested quite a lot of money in their tuition fees. The pattern of instructional teaching, imparting information and testing students on it, can create a culture where people learn to the test, and they also learn for the test. After a test, the students will feel accomplished, and wait for the next test. It can be like a dog that does tricks; it behaves well, but it needs to be led by the trainer. What happens when the trainer is gone? When the student leaves the institution? That halo effect from the leader will dissipate, and what is the student left with?

Communication, comprehension, and real student understanding are essential in teaching, so that when the opportunity arises for students to apply their knowledge and skill, they will be capable and equipped with all the tools they need. It is engrained in teachers to stretch and even push their students, but solely knowledge-based regurgitation is not representative

of deep learning (Weimer, 2013). A more meaningful learning happens through focusing on the individual student experience, through doing, through mastery. When students achieve mastery, it must be something that they have done in their own right, with a sense of ownership and belief. This is seldom achieved through strictly lecture-based telling, with students taking notes with the sole aim of repeating the information back (Cousin, 2006). Deeper learning calls for something to come from the student, an impulse or creativity of thought that contributes and forms the learning. This is not suggesting creativity as in colourful multimedia displays, but in active, engaged thought that enables the student to go through the process of learning as a personal experience in which they feel a true sense of agency. When the teacher can present a structure or material in a way that allows space for this, then the student can be drawn into filling the void of their knowledge with experience.

For example, Stanford Professor Timothy Bresnahan (2012) explained how he allowed for this space in his teaching, literally creating a gap where he paused and stopped speaking. This vacuum within a lecture pulled students into the discussion and produced a situation where the students *needed* to respond. Specifically, he advised that the teacher should be passive at some points, and give control of the “floor” to the students. He advocated integrating silence after posing a problem or a question, and leaving a gap until the students reply, even if that gap feels awkward or lasts for several minutes. This requires assurance on the part of the teacher, as there is no guarantee how students might respond or if the discussion will follow the teacher’s intended direction. Bresnahan emphasised that to create an active setting for the students, even in big lectures, the teacher must: ‘know them, challenge them, liberate them’ (Bresnahan, 2012). The teacher allows for student creativity, inquisitiveness, and for their experimentation, because they will not always know the desired or intended reply.

In traditional education, as students progress through the school system, there is a concept of authority that goes with teachers and their orientation as the figurehead of the classroom, which inevitably creates a student–teacher divide. Throughout primary and secondary education, students gain insight and experience and begin to close that gap that separates them from the teachers. For some students this happens seamlessly and naturally, but for others they may need to be guided by the teacher. Progressively, step by step, students can learn to recognise the process of their development and begin to understand, integrating reflection, and actively manage their personal transition as they claim deeper learning for their own.

Cousin (2006) proposes that this deeper learning occurs when students engage with 'threshold concepts'. These are concepts that are central to the discipline, and pivotal to making further connections across areas or the inner workings within a subject. Understanding a threshold concept allows students to unlock key aspects of understanding and begin to break barriers and build bridges that lead to mastery. These are difficult concepts for students, as they must do more than parrot back information, they must understand something that, on the surface, seems unlikely or causes them to shift their own perspective. Threshold concepts cannot be readily observed by simply paying attention to the surface of a situation. Once this understanding happens, the students can then make connections, and they gain a deeper understanding of the subject matter.

For example, in mathematics students must understand a threshold concept to make the jump from geometry, where area can be drawn and counted with a direct relationship to the numbers on the page, to understanding differential equations and integration. If the square in geometry has a side length of 3, it translates directly and the student can count 3 and produce the shape, but the conceptual understanding that occurs in calculus with differentiation and integration is not so straightforward and includes abstraction. A visual representation for equations can still be drawn, but it does not have a single-step connection to the numbers on the page. When the student understands the principle of what the equations mean, this threshold understanding is likely to be retained and remembered, allowing the student to be receptive to further learning and to integrate the concepts across other areas of their subject knowledge (Meyer, Land, & Davies, 2006). Wittgenstein, Anscombe, & Wright (1969) described the moment of understanding and described its related impacts when they said:

When we first begin to believe something, what we believe is not a simple proposition, it is a whole system of propositions. (Light dawns gradually over the whole.) (p.21)

For students to be in a position to engage with these key concepts in their learning there needs to be space; space for them to respond to an impetus, to question, and to explore. The teacher must be aware that this threshold, the 'ah-ha', is a moment of personal understanding, and if the material and learning is catered to individual students, then although teachers cannot promise understanding, they can facilitate it. When students achieve mastery, and they understand what they have done, the sense of their learning self and of their capabilities is affirmed and transformed.

Environments for learning

When students arrive to study their course there are a number of firsts, and among the things they will do is to find the various rooms listed on their timetables and arrive punctually for their lectures, seminars, and workshops. Some courses will be an exception to this, if they involve remote delivery via a combination of synchronous and asynchronous communications or meetings across the Internet. However, the focus of most courses is the taught, regularly scheduled class session in a physical space on the campus (Smith & Valentine, 2012), whether it meets weekly, several times a week, or even intensively over several days.

Is this physical class space where the learning happens? Is it an appropriate environment for learning? Students come with expectations and learned skills and habits from years of previous schooling experiences. Wherever the space is where teachers find themselves, they need to find ways of working that allow for effective learning to take place. Students are repeatedly met with similar structures for learning as they move from one year to another in school, and within these there are traditional methods for teaching, with the teacher speaking and being supported by textbooks: lecturing is still a prevalent mode of delivery (Laurillard, 2013). Even the phrase ‘mode of delivery’ is riddled with associative meaning that is not always connected and certainly not interchangeable with learning. As an example, if ‘mode of delivery’ was replaced with ‘mode of learning’: *lecturing is the most prevalent mode of learning*, it would not make sense.

The lecture format still remains even though teachers are aware of the benefits of student-centred, active, problem-based learning, and there is a reluctance to change from established, traditional ways of presenting lectures as teaching (Weimer, 2013). Sometimes there is a lack of confidence, but also newer teachers can feel that they are not in a position to make significant changes if this involves the taught structure or assessment processes (Gibbs & Coffey, 2004). Lecturing does not guarantee learning, nor does it ensure that students develop and become more capable and confident in their pursuits. It is important to remember that the physical arch-shape lecture hall was designed by the Greeks not for learning, but as an arena with good acoustics that allowed spectators to view performance competitions (Smith & Anthon, 1843). Allowing a large number of students to see the speaker when the lecture hall was established fit within the world of higher education and the understanding at the time that students were passively receiving the master’s knowledge (Jones, 2007). Lectures are generally passive happenings, described with words like ‘sitting, watching, listening, telling’, whereas learning is characterised with ‘practice’ meaning active engagement and

performance (Mazur, 2014). Today, many institutions still boast having these facilities and label them as *learning spaces*, when they are actually *performing spaces*.

Environments for ‘performing’ assessments

...thinking about it

- ▶ Where do you go for formal learning?
- ▶ Does the understanding happen there in that place, or in quite a different setting?
- ▶ As a teacher, where and when do you expect your students to learn?

Learning is an active process, something that people do, and students enter higher education to learn and prepare for their lives. Teachers work to give students the tools to develop skills, and throughout their studies various elements of knowledge and skill-base are tested. Sometimes students are asked to directly demonstrate practical understanding through an application where they have a chance to perform the specific tasks learned that contribute to their professional portfolio, but what if they are asked to sit for an exam or write an essay? There are many instances where it is not practical for a teacher to watch hundreds of students each individually carry out tasks. Written assessment is a commonplace method for asking students to communicate their understanding and evidence aspects of process through research and a written argument. An exam or an essay is still a performance, and as any assessment it comes with its own pressures.

There are elements of performance that transfer across learning contexts, and build on becoming a self-believing, autonomous learner. When a performer is successful and delivers a convincing performance, they are not only skilled, but display confidence and perhaps a flair for carrying out that task. Similar to a pianist on the stage, in an exam a student communicates about a given topic by calling on learned skills to articulate ideas and produce a final product in real time.

Considering academic work as a performance can encourage a shift in perspective. Once something is taken on board as a performance, it makes sense to prepare, and having a structure for building that confidence towards the achievement is likely to produce better results. Musical experts spend thousands of hours in the practice room, but they also practise all the aspects