53 Powerful Ideas All Teachers Should Know About

Graham Gibbs

SEDA
STAFF AND EDUCATIONAL DEVELOPMENT ASSOCIATION

Idea Number 35, June 2015

Conventional higher education does a poor job of facilitating learning transfer

Graham has invited a number of well respected international thinkers and writers about university teaching, and how to improve it, to each contribute one idea to the '53 Powerful ideas' collection. This post is by Christopher Knapper, who is is Director Emeritus of the Centre for Teaching and Learning at Queen's University in Kingston, Ontario. He was founding President of the Society for Teaching and Learning in Higher Education and a founding editor of the International Journal for Academic Development from 1994 to 2004.

The sole purpose of teaching is to promote learning, and a major assumption about learning is that that the knowledge and skills we acquire in one setting will be transferable to different situations. Indeed we might argue that the whole notion of establishing "special places" for learning (schools, colleges, training establishments) rests on the premise that something learned in a fairly artificial context will prove useful in the world outside, whether in the workplace, the family, or society at large. This may seem quite obvious, but I would contend that a good deal of teaching in university classrooms ignores the circumstances under which transfer of learning will best take place.

As Kenneth Robinson has persuasively argued, free public education in Britain came about in the early 19th century largely to satisfy the needs of the new manufacturing industries of the industrial revolution, which required workers who could read, write, follow a set of instructions, and perform simple calculations. The new schools were quite effective at achieving these goals, though there was a great deal of recitation and rote learning that probably stifled initiative and creativity, and certainly encouraged subservience to authority.

The Victorian school curriculum intended to transfer knowledge ("Facts alone are wanted in life", as Gradgrind put it in Hard Times), skills, both cognitive and physical (e.g. mental arithmetic, handwriting), as well as values and attitudes. This is more or less true of university education today. What has changed, however, is the larger context in which the knowledge, skills, and values will be used. Although those living through the industrial revolution would probably disagree, the pace of change then was considerably slower than it is today. To give a more recent example, my father completed his apprenticeship and earned his National Certificate in the early 1920s, and worked as a tool fitter in the Crewe locomotive works for the next 45 years. During that time the nature of his daily work changed remarkably little – though within a very few years of his retirement the factory, which has once employed over 20,000 people, had closed down for ever.

53 Powerful Ideas All Teachers Should Know About

Graham Gibbs

SEDA
STAFF AND EDUCATIONAL DEVELOPMENT ASSOCIATION

Change today is vastly more rapid and far-reaching and it is not just a matter of advances in technology, which is what captures so much media and public attention. There are also profound changes in the nature of work, the family, political structures, and society itself. This is a formidable challenge for universities wishing to prepare students who can transfer knowledge, skills, and values to new and evolving situations. There are two particular problems relating to our work as university teachers. The first concerns prevailing approaches to teaching, learning, and assessment, while the second relates to our programmes and curricula – in other works, the matter of how we teach and what we teach.

Teaching and Learning

Until recently a good deal of university teaching focussed on "telling" or "professing", based on the notion that the main task of teachers was to transfer what we know to our students, and perhaps "model" an ideal member of the discipline or profession. Students were generally assessed by a mixture of regular written assignments and formal examinations. This sort of teaching is still quite common in universities, though there is increasing recognition that students learn more effectively when they take responsibility for their own learning, when they are actively engaged in the learning process (because it usually increases student motivation), and when assessment is more "authentic" in the sense of being more closely related to tasks students might have to perform after they graduate. This realisation has resulted in radical revisions to teaching methods in some subjects, especially in the professional disciplines like medicine and engineering, where there is a crucial and immediate need for effective transfer of knowledge and skills.

At the same time it is surprising how much university teaching pays little heed to the importance of transfer, and continues in ignorance (or benign neglect) of the way people go about learning outside school or college. In the workshops I give on teaching I often ask participants to think of a learning project they undertook during the previous year and think about (a) their motivation for taking on the project (goal), (b) what sort of learning strategies they used (method), (c) what resulted (outcome), and (d) whether or how they knew they had been successful (evaluation). I inevitably find that almost everyone has embarked on some sort of learning project quite recently, both related and unrelated to their academic work. Very few of these projects involve enrolling in a formal course; most people report they simply "plunge in" and "learn by doing" or trial and error, though often supplemented by advice from an expert colleague or friend, or by going to the World Wide Web. The criteria for success are generally a matter of deciding how well they can in fact do what they set out to learn (translate a poem, speak colloquial French, knit a scarf, to cite a few examples I have encountered).

This seems to suggest that, outside educational institutions, most people – and

even academics – learn best in the way that John Dewey described 75 years ago: by performing tasks. And this further implies that an important role for the teacher is to set good tasks (ones that are interesting, relevant to learners' needs, and pitched at the right level of difficulty) and to offer constructive feedback on task performance that will lead to improvement of performance – something that good sports coaches have known for generations. This prescription seems a good bet for encouraging both learning and transfer. Yet a good deal of university teaching is done in a way that ignores the demands of the world outside.

Curriculum Issues

Once we turn to the question of what is learned in university we are confronted by the dismaying reality that the body of knowledge we acquire as undergraduates, if recalled accurately or at all, will often be outdated within a few years of workplace practice. The same goes for many skills, especially in the professions. One compensating factor is that pure information in the age of the internet is widely and instantly available: the problem is not with accessing information, but rather with using it wisely and effectively.

But there are even greater problems with many university curricula, and these concern the very way we organise programmes of study. If we were to look at a university calendar from 50 years ago and compare it with one from the same institution today it is remarkable how little has changed. Of course there are new programmes and courses (and new names for old ones), but university teaching programmes seem remarkably impervious to change. This is largely because of the power (perhaps "tyranny" would be a better word) of the disciplines, which control both curriculum content and credentialing in a manner not unlike the old medieval guilds. One consequence is that teaching programmes are slow to change. But even more important is that a majority of students never in fact practise the discipline of their speciality after they graduate. And this is not just true of traditional subjects such as history or physics, but also of the sciences and – to a lesser extent – the professional disciplines (the major exceptions being the health professions, where most graduates do pursue work in their field of study, at least initially). In other words, the way university curricula are organised and taught provides a huge challenge for the idea of transfer of learning.

I have spent a good deal of space laying out the problems with transfer largely because, although these shortcomings are partly recognised by thinking academics, universities are currently so beleaguered (and hence perhaps vested in the status quo) that we are reluctant to admit them publicly lest we all be out of a job. What are some possible solutions? Some are already in place with programmes that place a premium on acquiring skills that will transfer more readily to the workplace, such as problem-based learning in medicine, the use of inquiry learning in the humanities and social sciences, links between teaching programmes and industry, and community-based learning

initiatives. And in many arts disciplines (e.g. architecture, music) there has always been a tradition of practical hands-on experience that can transfer readily to real-world performance. What does seem evident, however, is that for university teaching to come to terms with the need for effective transfer of learning, we will have to pay much more attention to teaching skills and values that transcend a particular discipline and profession (i.e. encourage acquisition of lifelong and life-wide learning skills), provide support for a great deal more interdisciplinary learning, and ensure that students take on more responsibility not just for how they learn but also what they learn.

Suggested reading

Darling-Hammond, L., Austin, K. Shulman L. & and Schwartz, D. Lessons for Life: Learning and Transfer Developed. Stanford University School of Education

Wolf, A. (2002) Does Education Matter? Myths about Education and Economic Growth. London: Penguin.

This influential book is about whether investment in education increases economic growth. Alison Wolf argues on the basis of economic evidence that it does not, largely because transfer from education, especially from higher education, to work is so poor.

To comment or contribute your ideas, see SEDA's blog: thesedablog.wordpress.com