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The Learning Skills Deficit among Higher Education Students

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Abstract

Remedial learning has been an ongoing trend within higher education for some time, but a cumulation of structural issues at both post primary and tertiary/higher education level has compounded the problem. This paper analyses the problem and considers the extent to which intervention at practitioner level can alleviate problems (and to what extent structural change is required).

Keywords

Education, Higher Order Thinking, Higher Education, University, Learning Skills

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Introduction

Increasing numbers of universities are offering and even mandating remedial instruction for their incoming freshman students. The early iterations of this were centred around students will special needs, but it has latterly been offered to students with issues in literacy, numeracy, and study skills more generally. There seems to be a growing consensus that while students clear the basic hurdle of entry requirements (such as milestone qualifications at the end of post primary education, like A levels, SATs, etc), they are not quite up to speed on aspects of university level learning (Knight & Yorke, 2003). Those of us who teach at tertiary level will certainly have encountered students who struggle with the demands of college level learning. As a tutor for well over a decade I can attest to the steep learning curve I experienced in reconciling myself to the fact that our students need more help than what our university system is designed to give them. University tuition is focused on content but demands – and assumes – learning skills that are often underdeveloped (Zimmerman & Schunk, 1989). It may be that some of us teach at very prestigious colleges, where students are well prepared and equally well motivated. My (admittedly anecdotal) evidence would suggest that even here, tutors are encountering not insignificant numbers of students who are – at best – just keeping their head above water.

There is clearly (perhaps up for debate on the extent) a gap between what students learn in post primary education and what we expect our students to be able to do at third/college level. Some years ago, I attended a faculty meeting at a US university that I was visiting. The question of the market competitiveness of US 'four year' liberal arts programs (traditionally seen as the most prestigious undergraduate programs to attain) versus the three year degree programs in many European (including UK) universities arose. I highlighted that most of the demands on my advising of undergraduate students was to determine the quickest means of graduation through maximizing the opportunities to shorten the four-year degree. It would seem that the four-year degree program is increasingly viewed as less competitive than other degree programs primarily due to the length and associated expense (in combination with a lack of earning due to full time enrolment). It was pointed out to me by my US colleagues (I am not from the US) that the four-year program is designed to provide an additional year (first/freshman year) to allow students to get up to speed with higher education demands.

It is fair to consider why it is that, in many higher education settings, our students seem to be underserved by their post primary education, at least in terms of preparation for university level study. If one of the functions of post primary education is to ready students for further education, or lifelong learning generally, then clearly it is not serving all students as they progress (Knight & Yorke, 2003). Now, we might question whether that's fair. High school (or secondary school; I'll use the term 'post primary') is designed to provide the entire school going cohort of young people – including the majority who don't go to university – with the critical tools known as the three Rs, which is a core rationale for mass education in all economic systems. We need adults capable of functioning in our global integrated economy, and not everyone needs a degree. As the American comedian, George Carlin, remarked many years ago: 'governments don't want a population capable of critical thinking, they want obedient workers, people just smart enough to run the machines and just dumb enough to passively accept their situation'. He is perhaps not wrong. Mass education systems from primary through to post primary are also burdened, in many contexts, with the additional task of nation building, ideological or socio-cultural conformity and/or citizenship education.

They are not expected to be proficient at research, for example, as we understand it in academia.

So it would seem that the issue of underserved and patchily prepared students entering university level study reverts back to the tertiary level sector to resolve. The current focus is primarily on literacy, numeracy and (particularly in the western context) the provision of English as an Alternative Language (EAL) support, for the many non-native English speaking students pursuing degree programs in North America or the UK, Australia, etc. There are also writing centres open to students (Brown & Glasner, 1999) (Brookhart, 2010).

The problem, as I've experienced it, is that students are receiving this kind of support extraneous to normal class instruction. The upskilling of tertiary learners is seen as *supplementary* to university education, something that is separate from the primary concern of content delivery and subject mastery. I would question whether this best serves our students. As Alvin Toffler wrote in Future Shock over fifty years ago 'tomorrow's illiterate will not be those who cannot read or write, but those who have not learned how to learn, unlearn and relearn' (Toffler, 1970). The study skills, the mastery of learning processes is not supplementary to our higher education mission – it is central to it. In fact, we really need to ensure that our students get this right before anything else.

I had reason more recently to reflect on the transition from post primary to university level learning when I undertook research as part of an education training course. My topic was on the experience of students who had completed the International Baccalaureate and had entered university. As part of this I also undertook a literature review on the comparison between the International Baccalaureate (IB) system and the Advanced Placement (AP) system (Foust, Hertberg-Davis, & Callahan, 2008) (Park, Caine, & Wimmer, 2014). Consistently, the IB was considered the better system in preparing students for university level study. I also drew on primary data from social media as part of this research. In unsolicited testimony gathered from videos posted by former IB students on YouTube, IB students reported being well prepared for university level study, citing their work level demands throughout the IB Diploma stage and specific experience in preparing for the Extended Essay and the importance of the Theory of Knowledge.

The Contours of the Problem

What do I mean by 'problem'? I think one of the key elements contributing to high drop out rates, low completion rates and mixed student experience at university level learning is down to the steep learning curve students have when they make that jump from post primary to third level/university. Because while it is clear that the mandate for post primary education is focused on content and the three Rs, there are skills specific to university level learning, which students are expected to possess, but not given an opportunity to develop. Often, this is not prioritized in the remedial programs that are instituted in many universities.

For many students it is 'sink or swim'. A substantial proportion of students do manage to swim. But many more sink. It's not as if the skills I'm referring to are only relevant to university level learning. These skills are proving increasingly valuable in the work landscape of the twenty first century. Our problem emanates from several sources. First, post primary has its particular focus, which is to serve the entire national population with the provision of general education and preparation for employment. Universities are tasked with the

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production of higher-level learning for specialized and knowledge intensive domains, as well as research output necessary to sustain development in technologically advanced economies. The jump from one to the other by seventeen- and eighteen-year-olds is quite stark. One of the reasons is that they tend to view the university experience as an extension and continuation of post primary learning, rather than the rupture that it really is. We are not, on the whole, informing our students about the vastly different learning environment of higher education relative to high school.

Most of the tutors at university level are – at the very least – educated to post graduate (MA) level. PhD level qualifications are now the minimum for most faculty positions and tutor roles can only really be secured (if they can be secured beyond casual part time work) through demonstration of research output through publications. Therefore, the personalities that undergraduates encounter at the front of the classroom at university is several levels above them in education attainment. How many university faculty have teacher training qualifications? With the exception of US liberal arts colleges, university 'classes' are hardly intimate learning settings. Dozens, if not scores, of students are positioned anonymously in large lecture hall settings where the sage on stage model prevails. Knowledge is transmitted from expert to novice. It's a tried and tested method. It is also economically efficient. It is also limited in terms of pedagogical development.

This distance is problematic. Without invoking the 'ivory tower' metaphor there is sometimes a failure by faculty to understand or appreciate the skill level (or lack thereof) of many undergraduate students. Let's consider a fairly typical pattern of university assessment and reflect on where the typical post primary/freshman student is relative to those assessments.

Students will often be asked for a term paper, usually accompanied by a word limit, and framed on the basis of a prompt. The prompt can be very specific and focused or merely provide broad guidance and parameters. The student is then expected to take the time to research the subject and formulate an argument, presenting it in line with typical academic conventions. The student will be confronted by a high stakes examination, where their knowledge retention, problem solving, and analytical skills are tested in a timed setting through an unseen paper (students only know the questions when they sit the exam). Students might be required to present on a topic, demonstrating their ability to communicate ideas orally to their peers through the use of visual aids. Students might be tasked later in their degree with a literature review, where they must collate, evaluate, analyse and synthesise existing research on a given (or chosen) topic.

In all of these exercises (and this is not exhaustive) students are set a task, required to prepare, and are graded on the deliverable. Their grades are cumulative (course work grades are combined with final assessment) and the students' performance is evaluated on the application of a grade based on their completion/submission of the assignment deliverables.

The problem is that very little mentoring or guidance actually takes place. Tutors are time poor. So this begs an important question that we should reflect on. Have we as tutors and educators ever actually witnessed our students get training on the skills required to complete these assessment deliverables successfully. Assuming that the A grade (or first-class mark) is the headline standard, and assuming also that a rubric for achieving that is transparent for the student (which is often not the case), we should reflect on the extent to which our students are often unprepared.

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Here are the skills needed for the successful completion of such assignments.

- **Time / Project Management** (the effective planning and organization of task administration and completion)
- **Self-Directed Learning** (the ability to take the initiative with respect to assignment execution and completion)
- **Reading** (not in terms of literacy, but in terms of content assimilation and understanding)
- **Topic selection** (accounting for feasibility and scope; assuming it is not chosen for them within the syllabus or course guide)
- **Systematic research** (efficient use of the resources at the disposal of all students in the university library)
- **Summarizing & Paraphrasing** (effective utility of relevant topic information gathered)
- **Organizing information** (creating categories, identifying themes and imposing structure and order on reviewed source material)
- **Analysis of information** (applying concepts to data and generating insight)
- **Oral and Written Communication** (assembling a deliverable that accurately conveys insight, knowledge and ideas effectively and persuasively)

For most of us with advanced graduate and/or terminal degrees quite a lot of this comes naturally. We received no specific training, perhaps, and we 'figured it out' ourselves. But the vast majority of our students are not going to pursue PhDs. They may not, therefore, benefit from an innate assemblage of skills like these. But they still need to develop and hone these skills to some extent. The issue is that most students who arrive at university have only a patchy grasp of these. Yet we have to consider that these skills are not necessarily taught explicitly at undergraduate level. The major reason for the disjuncture in learning ability centres ultimately on the divergent modalities of post primary and university level education, and this can be summed up in one idea: learner autonomy.

Pupils at secondary school adhere to detailed curriculum and common or standardized assessment processes. They often absorb uniformly disseminated content in the form of approved textbooks. Above all, post primary pupils are enmeshed in a system of strong pedagogical practice with extensive contact time with teachers. While elements of all of that are present in the university setting the major difference is the more aloof role of course tutors – who are not teachers so much as academics – and the reduced contact time, and greater level of ambiguity around a lot of the learning content. Students, as distinct from pupils, find themselves with a lot of latitude, are less directed and less managed. Therefore, the training needed to be more proficient in the skills outlined above is largely a self-directed task and relies heavily on individual motivation and initiative. And this is where things start to break down for many students. Many are able to take the initiative and master the learning curve successfully. Many do not.

Students struggle with self-direction. They struggle with the blank page, with understanding requirements. They do get some guidance on more particular elements of university level academics, such as using the extensive library system. However, guidance is usually cursory at best and is often available passively on websites. Students will get some exposure to subject specific methodology. But in many courses this is heavily focused on quantitative methods, and not really on developing these important skills. The reality is that students don't engage in deliberate cultivation of these skills because they don't know what they don't

know. They also, even if they receive an orientation brief on university library use for example, don't connect its importance their own studies.

Bridging the Gap

So how to fix this. The evolution of 'remedial' learning in university is often seen as an implicit criticism of high school education. And that criticism may not be without some foundation, not least given the over emphasis in many settings on lower-level learning skills such as rote memorization of content and the predominance of description over analysis. Higher order thinking skills are not being taught or reinforced nearly as sufficiently as they should be. But universities are not off the hook either. That gap exists, and the university remedial support systems have located their interventions beyond the primary pedagogical setting of the classroom. That is, students must seek supplementary assistance in writing centres and support offices. Remedial interventions are too often (but not always) reactive interventions sought at the initiative of desperate students, and usually very late in the assessment process (a few days before submission). If at all. Many students do not seek this support even though they are made aware of it. The first step, therefore, is greater integration of this upskilling into classroom level learning and connecting it directly to content delivery and assessment.

For this to happen universities are going to need the cooperation of their faculty. This is not without challenges, given the casualization of academic work in more recent times. Nevertheless, a certain amount of time is going to be required to specifically instruct students, with frequent practical reinforcement, on the various skills outlined. They're going to have to conduct library searches, work on refining topic choices and research questions, get guidance on a more project management approach to their assignments, guidance and practice on summarizing and paraphrasing (a lost art, it seems), coaching on written and oral communication skills. Simply throwing broadly defined assessment exercises at them and expecting them to learn to swim is not helping many of our students. This is more easily integrated into liberal arts degrees (given the structure of these degrees and the stress on general education courses as part of the program) but it should be frontloaded to the first year of degree commencement in any degree.

The second element is the reinforcement of these skills through repeated exposure throughout the following years of study. Universities are actually perfect settings for this to happen. At tertiary level, we have learners engaged (especially at undergraduate level) for extended periods of time in a structured curriculum that is already tiered in terms of learning levels. However, it is not enough, as we know, to simply teach someone. They should also learn by doing. They must practice, and this holds true for study and learning as much as any practical discipline. The practice of developing skills in isolation or supplementary to core learning is hindering the improvement of student learning skills. Our assessment processes are directly implicated in this. There is too much risk for students to learn by doing because their assignments are usually consequential to the overall grade. There is no opportunity for them to develop the skills we're expecting and demanding before they have to present their efforts to be graded. It's a bit like asking a first-time driver to do a driving test with only a few driving lessons. What we should be doing is spiralling our students' learning experience within the entire length of the three/four-year program of study. The idea of spiralled learning is difficult to implement in the modular system but it is possible. But, once again, it does require buy in from program tutors. Explicitly building on earlier assignments, going into

greater depth, placing additional demands on them to reinforce what is already known and expanding on requirements, will entrench knowledge and understanding more fully. This, of course, requires that we spiral the curriculum (a la Bruner).

We must reduce the risk of learning for students in terms of grading and assessment (Robinson, 2011). In short, we must give students a chance to practice – and make mistakes – without worrying about their grade. It is possible to add an additional element to the recognizable repertoire of formative, summative and standardized assessment. In these traditional forms of assessment students are given a task, and once they submit the deliverable, they receive a grade. Feedback is (or should) be given, but the benefits are likely to elude the learner if they are not compelled to improve on the shortcomings identified by the instructor (Jonsson & Prins, 2019). Writing, for example, as Kellogg notes, is re-writing (Kellogg, 1994). This is where our system underserves: we provide feedback to tell students where they went wrong but they never have to revisit the exercise to make those improvements. Ipsative learning and assessment has become an important additional consideration in teaching and learning. Ipsative assessment – the cultivation and acknowledgement of 'self' improvement – allows students to experiment and improve gradually over time, building on previous iterations of work towards marked improvement (Hughes, 2014). Hughes defines it as 'comparing existing performance with previous performance'. There is no excuse for not doing this within a degree program, particularly an undergraduate degree of three or four years.

Conclusion

The problems that we might encounter in experimenting with our learning practices in this way are not insignificant. First, institutional resistance is going to be substantial, for several reasons. Beyond bureaucratic and administrative conservativism there is the obvious issue of dramatically increased workloads (in terms of reviewing and giving feedback) by already harried teaching faculty. I would submit that this emanates from the fact that universities have lost their way to a great degree in terms of their mission. The modern academic is often an afterthought in modern academia. Of paramount importance in many academic contexts are the twin pillars of research output and external grant funding. Seventy plus percent of teaching faculty in US universities are either adjunct or short-term contract faculty. The casualization and 'gig-ification' of the higher ed teaching profession has spread more widely. The sheen has definitely worn off an academic career. Implementing such a significant change in pedagogy, one that demands a greater level of input from faculty, is unlikely to happen while faculty struggle to sustain a viable career path.

Nevertheless, there are some options for intervention within our current system, which allow individual faculty and program leaders to integrate something approximating a consequential engagement with the question of academic learning skills. The following recommendations provide a heuristic for the higher ed tutor and program leaders to enhance the skills necessary for successful completion of higher education degrees. They should, so far as practicable, be integrated into existing modules, preferably in the early stages of the course so that students have the benefit of developing these skills well in advance of any assignment deadlines.

- **Time management** (scaffold and structure assignments by breaking up individual components of the assignment and creating milestones from conceptions from completion, including set milestone submissions charted along a critical path)

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- **Self-Directed Learning** (encouraging students to consider self-directed topic selection within the confines of course subject matter)
- **Reading** (we need to be more open about what our reading expectations are and how our students should maximise their efficiency in reading)
- **Topic selection** (supervised brainstorming in groups or pairs on proposed topics with feedback loops into whole class discussion; included is supervisory guidance on feasibility and scope)
- **Systematic research** (Provide a workbook for students to systematise their research process; providing a sequential rubric for them to undertake research)
- **Summarizing & Paraphrasing** (this should be practiced more; freshman seminars or dedicated classes should be given over to honing both of these skills)
- **Organizing information** (workshops in class on the creation of themes, developing categories, and the creation of essay and term paper reading records)
- **Analysis of information** (workshops on overcoming the description versus analysis problem; outlining possible analytical tools in research and understanding and walking through the structure and execution of analytical arguments in published research)
- **Oral and Written Communication** (guidance and instruction on the practical assembly of papers from blank page to final submission)

Higher education learning is much more demanding on students than post primary (Blythe, 1998) (Zimmerman & Schunk, 1989) (Vygotsky, 2004). Higher order thinking skills are in greater demand. The ability to organize, analyse, and synthesise information in large volumes and communicate ideas and argue persuasively are in greater demand. Yet the training our students receive in this regard is paltry, compounded by more limited contact time and the fact that entry level undergraduate students are still in high school mode when they arrive. They are not properly briefed on the path they are about to take. University education is becoming increasingly expensive and is now a more consequential decision for many young people.

The least we can do is recognize that we in higher education have a responsibility to be more transparent about higher education demands and shoulder more of the responsibility for overcoming this shortfall in learning skills by our students.

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