

**A Green Approach to Professional Development
Reduce, Reuse, Recycle - getting educational gems to
those who need them**

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Abstract

This paper provides an overview of a green approach to professional development. It outlines a strategy of reduce (distillation of good pedagogical practice), reuse (adaption and localisation of these practices) and recycling (dissemination of these reuse scenarios) in the context of higher education. The amount of information about good pedagogical practice can be overwhelming and this paper outlines how both formal and informal CPD opportunities can be used to improve teaching. It notes the benefits of informal CPD sessions which facilitate peer learning among lecturers. These sessions facilitate the sharing of best practice as well as the pitfalls to avoid when implementing particular pedagogical strategies. The paper provides an example of how the approach has been used to improve group work, an area of perennial difficulty for both lecturers and students. It reflects on the experience of using this approach and the improvements that have resulted from focussing on key take away points from CPD sessions, adapting them to a specific module and disseminating them with colleagues.

Keywords

Professional Development, informal CPD, peer learning, group work

1. Introduction

Ideally, all educators would have a solid foundation in pedagogy before they enter the classroom or alternative educational setting. However, while this may be case for primary and post-primary teachers in Ireland, it is not universally so in Irish Higher Level Institutions. This paper outlines a three pronged approach to dealing with the challenge of dealing with the vast amount of information available, how to figure out what is most relevant and applicable to a particular lecturer and how to disseminate good ideas to other lecturers. The approach involves reducing (or distilling) the information available so that it the most relevant bits are more pertinent and obvious to lecturers. It involves adapting and reusing strategies that others have used successfully in a local context. It also involves recycling the knowledge and informing others so they too may apply relevant tools and strategies in turn in their own local context.

Terminology

The terms teacher, educator, lecturer and academic are used interchangeably in this paper. Teacher is the term generally used at primary and post-primary level, while lecturer is the term used at third level. Educator is a broader term that covers both teachers and lecturers. In the context of this paper, third level refers to education after post-primary level. The term pedagogy is used throughout this paper, even though the term andragogy is probably more appropriate. Andragogy refers to the teaching of adults. However, the term pedagogy is more commonly used in the literature and more widely known, and is therefore used in this paper (see Davenport and Davenport, 1985 for a discussion on this topic).

The three terms reduce, reuse and recycle are more commonly used in the context of the environment. In the context of this paper, reduce has an alternate meaning and is used the sense of reducing or distilling information to key points or important elements. In the educational context, the vast amount of information and resources on pedagogy are reduced to their core elements and make more accessible to educators. Reuse refers to reusing or using these points and components in another context i.e. in a different context to the original domain of use. Recycling refers to disseminating findings and sharing the findings of pedagogical practices with others. The knowledge gained about

what works and what does not is recycled so that others can learn and in turn reduce, reuse and recycle things themselves.

2. Literature Review

As with many countries in the world, education is highly valued in Ireland at primary, post-primary and higher level. While in some countries, the job of a primary school teacher is considered a low status job with relatively poor pay and conditions (e.g. the USA), in Ireland, the job of a primary school teacher is considered prestigious. Hargreaves (2009) has an interesting overview of the status and prestige of teachers, while Drudy (2001) and Conway et al., (2009) provide insights in to the Irish context. Pre-service primary school teachers must complete four years of undergraduate study plus one year of in-service teaching before they can become qualified teachers.

Research is an important component for lecturers at third level (Burrows, 2012), and while they are expected to have both teaching and research skills, often they are hired for the domain knowledge and research ability rather than on their teaching skills. Geschwind and Broström (2015) report on the difficulties that arise in the teaching-research nexus at universities. While it would be ideal if the lecturers were also pedagogical experts, this has not been a requirement to date in Ireland. However, this is changing, as universities in Ireland look to the experience of other countries to see how they have managed to implement pedagogical development frameworks into their institutions. Aside from the general pedagogical awareness required by lecturers, it is also important that they have Pedagogical Content Knowledge (PCK) (Shulman, 1981). PCK refers to the knowledge that is required to teach a subject effectively and includes both a knowledge of the subject matter (content) and knowledge of how to teach that content.

While there is a certain academic ‘snobbery’ around the ‘superiority’ of research over teaching (Harwood & Clarke, 2006), lecturers should know how to teach. They should be aware of what others have done, what the research literature suggests works and does not work. This lack of knowledge results in a waste of limited resources (particularly time ones) and less effective teaching and learning for educators and students. This

mainly happens because lecturers are sometimes unaware of the Scholarship of Teaching and Learning (SoTL) (Trigwell & Shale 2004).

Localisation is an important concept in education as one size does not fit all learning situations (Cheng, 2006). Educators should be aware of this and adapt things to their local educational context. Informal Communities of Practice (CoP) (Wenger, 2011) can be very useful vehicles for learning, sharing and improving. Lea et al. (2005) report on the emergence of CoPs at university level. There are several advantages including enabling others to learn what has worked (and what has not) and it can lead to suggestions as to how to improve things in the future. In recent years, there is an increasing awareness of the need for lecturers to be professional in their teaching and there are many opportunities for lecturers to undertake Continuous Professional Development (CPD) in this regard.

There is a need to normalise the application of SoTL into teaching practice. This means that continuous learning about teaching and learning needs to be accepted as part of the normal work cycle of an academic. The innovation adoption lifecycle (Rogers, 1995) with early adopters, majority and laggards could be used in the field of SoTL. It is important to normalise CPD and its application to teaching so that it is considered 'normal' and part of what is required and expected of academics and not as an 'optional extra' indulged in by some. Bax (2003) and Chambers and Bax (2006) provide good insights into normalisation in the field of Computer Assisted Language Learning (CALL) and their observations are relevant here.

3. Methodology and Approach

Reduce

The reduce phase involves reducing the wealth of available information on good pedagogical practices to a manageable set of key points and important components that a lecturer can focus on in a given time period. There is so much information available to lecturers, both formal and informal, that it can feel overwhelming to try to make sense of it all. While it might not find favour with the purists who might argue that this would oversimplify things, an approach whereby pedagogical information is

distilled down into key features makes sense. It is a pragmatic response to real needs that have to be addressed with limited time resources.

This approach involves availing of both formal and informal learning opportunities. The formal opportunities include available modules, seminars and workshops organised by the Teaching Enhancement Unit of the university as well as attending relevant education conferences. The informal learning opportunities include informal peer learning workshops with colleagues from across the university as well as internal and School workshops and sessions. While these sessions tend to be less structured, they can be very beneficial to lecturers as the presenters are often fellow lecturers with similar problems and real-world limitations to deal with. The relaxed and informal nature of these sessions means that the presenters are not afraid of 'telling it like it is, warts and all'. This has the twin benefits of making their information real and relatable and giving other lecturers the confidence to try something new themselves.

A key feature of the approach is that an active listening strategy is adopted in order to gain maximum benefit from each learning opportunity. This involves paying full attention to the speaker or the information, having an open-minded attitude to what is being said and being willing to make adjustments to a way of thinking and being flexible. Humans can process information faster than a person can speak and an active listener can use the 'extra' time to write down key points that the speaker is articulating (Nichols, 1957). Active listeners can focus on the moment and block out distractions in order to be attentive to the speaker (Hoppe, 2006).

Reuse

The reuse phase aims to adapt and apply approaches and techniques that have worked for others into a particular context. Lecturers can learn from others (in the reduce phase) and think of how to apply this in their own teaching. Their student cohort might be different, their class size might be larger or smaller and their topic may be different. The lecturers are best placed to know their own teaching and learning eco-system and may need to be creative in how they apply something new in their teaching. When adapting approaches and techniques from another field, it is important to combine PCK into the process. A key feature of the reuse phase is to reflect on how the new approach

or technique has worked in practice. An idea that looked good at the start of the module might turn out to be less wonderful at the end of the module when faced with unforeseen problems or difficulties have been encountered. The review might indicate that further changes and adaptations are required for future use. One good example in this context is the flipped classroom where traditional learning takes place outside the classroom and the class time is used for what is usually considered homework (Tucker, 2012). In theory, it sounds like a good idea and it is. However, in practice, it relies on students to actually study the material before coming to a class or a lecture and this may not always be the case. In order for the flipped classroom approach to work, lecturers need to scaffold students, provide guidelines to them and make them aware of what is expected of them. Lecturers may need to refine how the flipped classroom strategy is used in their module in order for it to be successful.

Recycle

In the recycle phase, the knowledge gained is recycled and made available to others. This involves both internal and external dissemination. Internal dissemination could include informal School sessions or university-wide seminars and workshops. While internal dissemination may be seen as easier to do, paradoxically, external dissemination may actually be easier. It is important to outline the rationale of approach or technique and the context in which it was applied. Practical examples of how it was used are usually informative for others. Another key element is to report on the problems that occurred and how they could be addressed in future iterations of a module. While it can sometimes be uncomfortable to talk about non-successful aspects of one's teaching, it can be very informative for others. Often, there is more learning from the failures than the successes.

4. Example of the Approach in Practice: Group work

Group work has become more common in recent years in academia and while many lecturers recognise the need for group work and the potential benefits, they are also aware of the issues that surround group work. An example of how this approach was used in practice for improving group work is presented here.

Reduce Phase

In the reduce phase, a lecturer (L1) in a computing School availed of a variety of formal and informal Continuous Professional Development (CPD) opportunities to enhance her pedagogical knowledge of group work. One of the main sources of information was a university initiative called the 'Sipping Point', which was a series of informal sessions given by lecturers to fellow lecturers. The topics are chosen by the lecturers themselves based on suggestions by the Teaching Enhancement Unit (TEU) of the university. These sessions are very informative and the participants get a chance to tease out elements of interest in the Q&A part of the sessions. Lecturers are not afraid to say what went wrong as well, how they plan to change things and what they would like to do in the future.

At one Sipping Point session a colleague (C1) gave a presentation on the joys and pitfalls of group work. It was a really succinct summary of the area, along with helpful suggestions as to how to overcome some of the main problems. Suggestions from the session included allowing students to select one person they would like to work with and leaving it up to the lecturer to assign them to a group. This was a simple, but potentially powerful suggestion. This colleague (C1) referred to work being done by another colleague (C2) on tools to help improve group work. Subsequently, C2 presented his work at a Sipping Point session and he provided really helpful tips for others, which were added to by others at the session. These included making sure that students were made aware of expectations of the as part of a group, the need to have clearly defined roles (which may change over time), the need to have a clear plan of action and the need to take minutes of meetings. He also demonstrated a tool he had developed to help monitor group work contribution by students. It involved forms for students to review their perception of their group members' contribution, as well as their own contribution to the group project. Based on popular demand, this colleague (C2) delivered a special workshop demonstrating how to use this tool. Key takeaways from these sessions were allow students to pick one group member, ensure that they knew about expectations, ensure they had a plan, informed them of the need to take minutes and to have some mechanism for continuous monitoring of progress throughout a group work project.

Reuse

The lecturer (L1) localised this knowledge to the local context of a module. The module was delivered in a compressed mode, with a 12-week module being delivered in just three weeks. There were problems in previous years with the group project including group forming, lack of structure, lack of professional approach, inconsistent participation and lack of oversight of the process. The lecturer decided to implement several of the key takeaways from the Sipping Point sessions. Students could pick one student they wanted to work with in the group, with the group being formed by the lecturer. Expectations were clearly explained to the students, whereas in previous years, there was a light-touch explanation based on the assumption that the students 'knew what was expected' of them. Students were asked to come up with a plan for their group project and to clearly define who was doing what task as part of the group project. The students were told that they had to have minutes of each group meeting that took place. There were shown how to write minutes of a meeting including who attended, action items from the previous meeting and action items for the next meeting. These might seem like basic things, but these computing students would not have had exposure to this information previously. Once the module had finished, the lecturer reviewed what had worked well and how things could be improved. Allowing students to pick one group member worked well. Students seem to have a better understanding of what the project entailed and the overall reports were very professional. Getting students to take minutes had several benefits. It meant that students recorded who had participated and what they had done. The lecturer could see if there were any 'inactive' students and if the students had been working on the project on a consistent basis. The peer-review system for group contribution was not implemented mainly for time reasons, particularly due to the squashed nature of the module.

Recycle

In the recycle phase, the lecturer (L1) delivered a session on group work to colleagues based on the knowledge gained in the reduce and the reuse phases. Many lecturers were keen to learn how to improve group work as it is a constant issue for them. They recognised the usual pitfalls as ones they had come across themselves. The lecturer had carried out a Teaching and Learning (T&L) survey with her colleagues about various aspects of teaching. Several of the lecturers answered that they would like to improve

the group work aspect of their modules. The lecturer plans on running several sessions on this topic to a variety of different cohorts (School, Faculty, undergraduate/postgraduate, face-to-face and blended) as there is an appetite among lecturers to improve this aspect of their teaching.

5. Discussion

This approach for professional development for academics has worked well. Those with expertise in the field (e.g. the Teaching Enhancement Unit) and successful practitioners (e.g. the Sipping Point speakers) were able to present their information succinctly to others. Given the vast amount of information available on a given pedagogical topic, it is easy to be overwhelmed and it can be hard for lecturers to find the gems that are relevant to them. This is why it is important to reduce or distil the information to a set of key items that are of particular relevance to the lecturer. An active listening/reading approach is important in this regard. Full attention, an open-minded approach and a flexible disposition are required to get the most out of both formal and informal professional development opportunities. CPD should not just be a box ticking exercise and is only effective if the knowledge gained is actually applied. Active learning is a key learning approach and while lecturers may advocate it for their own students, they may be less likely to actually apply it to themselves. The reuse phase means that lecturers get an opportunity to try out new (to them) tips and techniques in their own teaching. This makes the CPD information more real to them and encourages (forces?) them to think about how to improve their teaching. It is important to be aware from the outset that not all elements of a previously successful approach will be applicable to their own local context and there is new knowledge to be gained by going through the adaption process. Furthermore, the process is iterative and lecturers can strive to improve things each year.

The recycle phase is perhaps harder to implement. Lecturers from outside the education studies area are often reticent about discussing their teaching. This can stem from a lack of confidence in their ability to articulate what they do using the correct educational language and terminology. On the other side of the equation, it can be hard to find the correct forum for dissemination. One approach is to highlight the practical and applied

nature of the CPD. This is based on the philosophy that busy academics will get more benefit out of seeing how pedagogically-informed practices work in practice in a real classroom setting over just reading about how they work in theory. In terms of wider dissemination, perhaps a good approach is for academics to work with people from their university's Teaching Enhancement Unit (or equivalent) to 'knock their ideas' into shape for publication in national and international journals.

6. Conclusions and Future Work

It can be difficult to engage academics in CPD for teaching. There are so many things competing for their time, that CPD for teaching can be relegated to the optional category. This is unfortunate, but more than that, it is unprofessional and does a disservice to both students who have to learn and to lecturers who have to teach. This paper outlines a green approach to professional development for academics. It explains how a reduce (distil), reuse (localise) and recycle (disseminate) strategy can be used to help lecturers find education gems that could be beneficial to their teaching. The CPD can be both formal and informal. In the example presented here, it was informal CPD that was of particular benefit as it unearthed gems that made sense and could be used by lecturers across a range of disciplines and in different contexts. Future work will focus on increasing the dissemination channels and involving lecturers in informal CoPs to normalise CPD and to encourage academics to improve and enhance their teaching. There is something special that happens in peer to peer learning and while it is usually recommended for students, it can also be recommended for lecturers. After all, in the area of professional development, most lecturers are learners too.

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