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Trainee Perspectives of the Effectiveness of Active Learning in a Legal Education Context

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Abstract

This article explores whether active learning techniques can be effectively introduced to large group lectures in the context of legal professional training. It is limited to the perspective of the students (trainee solicitors). It is evident from research literature that a student-centred approach in the form of active learning techniques engages students and is considered a more effective form of teaching than the traditional lecturing style generally adopted at higher level education. There is a distinctive gap in the research literature relating to professional education. This article discusses a small scale qualitative study which adopted an action research methodology to determine the effectiveness of active learning techniques in this particular context. The study was confined to the introduction of two particular techniques, an in-class computation exercise and a re-cap technique, to the traditional lecture format. The views of a small focus group of trainee solicitors from the Law Society's of Ireland Professional Practice Course were engaged. Findings from this study indicate that active learning techniques are effective in achieving learning outcomes from a trainees' perspective. The author concludes that limitations of the use of the techniques can be overcome. Important directions for future research include in-depth analysis of the effectiveness of the techniques in preparing trainee solicitors for the professional role.

Key Words: Active learning; legal professional education; action research; large lecture groups

Introduction

Lecturing styles and techniques have been the subject of international pedagogical research for decades. With attendance levels waning at most teaching institutions the lecture as an education tool is being held up to scrutiny in terms of how it contributes to the goals of education. Researchers question the lectures role in engaging and

1

inspiring students. There is a lot of emphasis in current literature on introducing 'active learning' to large group lectures to overcome the issues with the traditional teacher-led approach to lecturing. This article explores a study carried out to determine the effectiveness of active learning techniques in the context of the Law Society of Ireland's professional training course.

Legal Professional Training in Ireland

The Law Society of Ireland provides legal professional training on the Professional Practice Course (PPC). The PPC is a practice and procedure course designed to prepare trainee solicitors (Trainees) for practice as qualified solicitors. The PPC is comprised of two parts – the PPC I (six-month duration) and the PPC II (three-month duration). Trainees obtain eighteen months practical experience in a solicitor's office (Training Office) before attending the PPC II - the second part of the PPC.

The PPC adopts an integrated teaching and learning model as follows: Trainees prepare in advance for the lecture by reading relevant material as outlined in the course syllabus. This is followed by attendance at a one-hour lecture on a particular topic. Trainees then partake in independent study or group based study to prepare for the tutorial. They are provided with pre-tutorial exercise to complete over a number of days. This is followed by attendance at a ninety-minute tutorial to discuss and review tutorial questions. Tutorial questions are based on typical cases from solicitor's practice, the aim being to practically apply the theory the trainees have learned in the lecture. Trainees are asked to reflect and consolidate their learning after the topic lecture/tutorial.

Lectures on the PPC I are to large groups of over 200 trainees and are teacher led/non-active style lectures. Tutorials are based on small group learning with trainees expected to prepare in advance for tutorials. Trainees taking the course have passed academic-based entrance exams (FE1's) and the majority will have a third-level legal qualification. The PPC is comprised of five core legal practice modules including the Applied Land Law module which is the subject of this study. Each module is comprised of twenty lectures and twelve tutorials. Assessment in the Applied Land Law module is by way of open-book exam.

Lectures on the PPC are given by members of the profession who are experts in a particular area of topic or by course managers, full time executive employees of the Law Society who are responsible for delivery, design and assessment of one of five core legal modules. Lecturers (members of the profession) attend training teaching and learning training seminars regularly and they are encouraged to obtain a teaching and learning qualification. The author is the course-manager of the Applied Land Law module and lectures and tutors on the module.

Despite the criticism of the traditional lecture format for imparting knowledge and transmission of information, as discussed below, higher education institutions (to include the Law Society Professional Practice Course) rely on this method as their predominant mode of teaching and are likely to do so in the foreseeable future. In this article the author carries out a qualitative action-research study, involving a small focus group of Trainees, to explore whether active learning techniques can be effectively introduced to large group lectures specifically in the context of legal professional training in Ireland. The study was confined to the introduction of two low risk activities, an in-class computation exercise and a true or false recap technique, to the traditional lecture format. The effectiveness of the techniques is from the Trainee's perspective only.

Lectures – no place in education?

Traditionally, lecturing "viewed the mind as an empty slate rather than a muscle that needed exercising through constant challenge" (Wright, Bitner & Zeitham as cited in Peterson, 2001, p.187). Biggs (1996) describes the current constructivist view on learning as trainees actively involved in the construction of mental representations and not simply empty vessels waiting to be filled with knowledge.

Larger and more socio economic and cultural diverse groups create additional teaching challenges and issues for lecturers. As class size increases interaction between trainees and lecturers is reduced resulting in passivity and anonymity (Biggs, 2003). Gibbs (1992) found that large group teaching can result in poor student engagement with the content of the course, low participation levels, lack of motivation, a sense of isolation and overall less commitment to the course. As there

3

is less individual accountability in large groups students can engage in distracting off-task behaviour (Wulff, Nyquist & Abbott as cited in Mulryan-Kyne, 2010).

The conventional lecture model holds little regard for students' existing knowledge of a topic. The impersonal nature of the large group makes it difficult to determine whether students have grasped a particular concept. When students are passive, high learning goals beyond basic recall and description cannot be easily achieved. Understanding, application of the information to new situations and motivation for further learning and evaluation are generally not achieved during a conventional lecture (Gibbs, 1988; McKeachie, 1999)

Johnson (1992) describes his lecturing experience as follows:

> As I clip on my microphone onto my tie, turn from the cinemascope sized overhead projectors to the tiered masses of students like the north face of the Eiger, I wonder whether it really is worth it. The avalanche of coughing which hits me when the flu epidemic starts, the five minutes it takes off the beginning and the end of the lecture for everyone to get and in and out, these and other features make communication transient and hazardous (p.85).

However, while lecturing as a form of teaching clearly has its shortfalls the traditional format is effective in a number of contexts including introduction and arousing interest in a topic, presenting information not readily available, giving certain perspectives based on experience or where curriculum materials needs updating or elaborating. (Good & Brophy, 2003).

Literature exploring the effectiveness of active learning in large groups

Active learning is defined by the Educational Resource Information Center as learning in which the learner is the primary driving force, with the instructor (if one is present) as facilitator of the process. The Center defines learning widely as the process of acquiring knowledge, attitudes, or skills from study, instruction or experience (ERIC, 2003 as cited in Smith & Van Doren, 2004). With active learning techniques reliance on the lecturer as the conveyer of all knowledge is reduced and the traditional 'chalk and talk' style of large group lecturing is transformed from a passive to a student-centred learning environment. Examples of active learning

activities in a lecture setting range from quick surveys e.g. show of hands, short exercises, quizzes, pairs/small group discussion, role playing, brainstorming, asking students questions to the use of technology such as movie clips, 'clickers' or SMS texting. Huxham (2005) describes such techniques in a lecture setting as 'interactive windows' (p.17) where the lecture is interspersed with activities.

Although a 2002 report by the Australian Teaching and Development Institute indicated that the requirement to motivate students become increasingly difficult with large classes the results of a study carried out in the University of Auckland, New Zealand (as cited in Exeter et al., 2010) demonstrated that teaching techniques commonly used in small group teaching can be used to promote student engagement in large lecture groups. Interactive windows in lectures engages the students in the sense that that they are seeking to develop knowledge, applying that knowledge to different contexts, relating the information presented to their own experiences and, in effect, deep learning (Biggs, 1996). This is despite the greater diversity and complexities in the teaching process involving larger groups (Exeter et al., 2010). A developing body of research shows that the effectiveness of a lecture is not determined by class size but by the teachers skill and competency (McKeachie as cited in Mulryan-Kyne, 2010). Mills, Cottell (as cited in Machemer & Crawford, 2007) and Huxham (2005) found that active learning techniques, such as problem solving techniques within the lecture framework creates a positive student attitude towards the subject. Stein & Hurd (2000) found that such techniques use diversity of the student population to its advantage and reduce reliance on the lecture as the transmitter of all knowledge.

Johnstone & Percival (1976) found that lecturers who adopted a varied approach and interspersed their lectures with some form of deliberate break usually commanded a better attention span from the class – in fact it was found that deliberate variations had "the effect of postponing or even eliminating the occurrence of an attention break" (p. 17). It is interesting to note that Burns (1985) identified a lapse of attention fifteen to twenty minutes into a lecture. An activity used in a lecture setting re-starts the attention clock (Burns, 1985). Tormey & Henchy (2008) adopting an action research approach, moved away from the traditional lecture form of transmitting information and created a space for students to engage in discussion. They were motivated to take

5

action due to concerns that their teaching methods were in conflict with their educational beliefs.

Although it is important to be aware of certain limitations of active learning in large groups, it is evident that there is agreement among researchers that many of the limitations can be overcome, as discussed below.

Students are expected to prepare in advance for active based lectures – while active instruction does encourage students to prepare better for lectures as they will often need a certain level of understanding to participate in the activities, lack of preparation on the part of the students can result in non-achievement of learning outcomes (Mazur, 1997). Students may resist having to engage in lectures with a study by Van Dijk, Van Den & Van Keulen (2001) reporting a preference amongst Dutch students for traditional lectures. Although, other studies have found that active learning techniques within the lecture framework had a positive impact on student impressions in evolution lectures at Edinburgh University (Huxham, 2005). Machemer & Crawford (2007) found that any activity that is perceived by students to improve exam performance is the most valued of all. Often the success of introducing activities is dependant on the students appreciating the role active learning will play in their understanding of the topic.

The content covered in the lecture can be reduced, sometimes dramatically. Lecturers are reliant on the students studying the remainder of the course material. It is the view of Jenkins (1997) that valuable classroom time should not be spent on the low level goal of conveying chunks of material but rather spent on deep learning goals namely analyses, synthesis and application. As students are required to study material that will not be covered in the lecture they are encouraged to be better prepared and this reduces the time required for explaining the subject matter (Mazur, 1997).

Difficulties can arise in evaluating student participation and the determining whether learning outcomes have been achieved. Bonwell & Eison (1991) identify the risk that the students will not participate and a loss of control as major impediments to moving beyond the traditional lecturing style. A lack of confidence in pushing one outside their comfort zone is often an issue. Ward & Jenkins (1992) highlight the stress of

performing to large classes and managing a large group. Van Dijk et al.(1999) recognises that research obligations are often prioritised as there is no incentive to investing time and energy to active teaching methods other than personal satisfaction.

Research Methodology

This small scale qualitative study adopts an action research approach. Action research can take many forms and be conducted for varies purposes but in an education setting it generally involves reviewing current teaching methods, experimenting with different strategies, collecting data from relevant sources on the effectiveness of the new strategy, evaluating such data, reflecting and gaining insight. It is described by McNiff 'as a practical way of looking at your practice in order to check whether it is as you feel it should be' (McNiff & Whitehead, 2002, p.25).

This study was confined to the introduction of two particular techniques to the traditional lecture format on the PPC I Applied Land Law module. Approximately 200 trainees attended the lecture. The topic of the sixty minute lecture was Capital Gains Tax, Certificates of Clearance in a Conveyancing Transaction and Voluntary Dispositions. The lecture was presented by way of Powerpoint slides which the trainees had a copy of in advance in handout style (to encourage them to supplement the slides with brief notes). The first interactive window involved giving the trainees five minutes to compute the Capital Gains Tax liability arising in a particular transaction. It was timed to coincide with the recognised twenty minute break in attention that occurs in lecture groups. An outline of the computation was explained to them before the exercise. This was followed by an interactive large group discussion of the answer and the errors made. The other active learning technique was introduced at the end of the lecture as a recap tool. It involved asking the trainees whether particular statements set out on the PowerPoint slides were true or false. The correct answers were discussed briefly.

After the lecture the author engaged the views of a small focus group of eight trainees from the PPC who attended the lecture. The trainees comprised of six trainees ranging in age from 22 to 27 years old and two 'mature' trainees all from a similar ethnic background. Three of the trainees had experience in their training office.

7

The objective of forming the focus group was to determine the effectiveness of the active learning techniques used in the context of this particular lecture. The following questions formed the basis of the discussion with the focus group:

- Do you think the exercise helped you develop an understanding of Capital Gains Tax?
- Did the exercise 'restart your attention clock'?
- Do you think the True/False quiz is a good tool for recapping the main points of the lecture?
- Did you find it easier to engage in the lecture with the use of exercise and True/False quiz?
- Did you enjoy the lecture?
- Do you think these techniques are useful in lecture setting?
- Are they useful tools for preparing for an open book exam?
- Do you think the activities will aid in recalling the lecture content?
- How do you think this lecture could be improved?
- Would you like active learning techniques to be introduced to all lectures?
- Did the techniques help prepare you for practice as a solicitor?

Presentation of Focus Group findings

The response of the group to the active learning techniques was largely positive. The computation exercise in particular helped to develop their understanding of the topic and apply this understanding to a particular scenario:

> I found that it was only when I attempted the exercise that Capital Gains Tax started to make sense. It is all very well to talk someone through how to compute tax and determine a multiplier but you really don't know if you understand until you try to calculate the tax. I made an error but realised where I went wrong following the discussion and it made sense. I would have been sceptical of using tutorial style exercises in the lecture as that is what the tutorial is for but certain activities are useful in a lecture even if you have a tutorial as well.

The group felt that they activities would assist them in recalling the salient points of the lecture and help them get a lot more out of the relevant tutorial: "I feel I will be

able to engage more in the tutorial group exercises as sometimes the lecture material is forgotten by the time we get around to tutorials."

A number of the trainees mentioned that it helped focus their attention as it began to wane. All but one trainee enjoyed the lecture but found it more challenging. The trainee who did not enjoy the lecture set out his reasons as follows:

> As I did not feel I had enough time to write down notes. I like to sit back and be lectured to and take lots of notes. I then feel I have lots of information for passing the exams. We do enough discussion type active work in tutorials and this is an opportunity to listen for a change. It was a lot of effort to participate but then we have had a very busy week and perhaps I am just tired.

The trainees' did find that it gave them an interest in the topic which they were not expecting as a tax topic can be quite daunting and/or boring for most trainees. The group mentioned that they would like to see lecturers using more active learning techniques where possible. They understood that at times the nature of the lecture material does not lend itself to such techniques although they felt the use of the true/false exercise could be used by all lecturers to recap on the more salient points in a lecture and to ensure that learning outcomes where achieved. The issue with this type of exercise though, is that some trainees will not participate and it is left to a core group of trainees to answer the questions raised. They felt that even basic active learning techniques such as asking the group a question would help engage the group.

With regard to preparing trainees for practice, one trainee mentioned that:

> After completing the tax computation in the lecture and getting feed back on it I feel confident that I can carry out a straightforward Capital Gains Tax return for clients. Before attending the lecture I wouldn't have touched it and would have handed it over to an accountant on the presumption that conveyancers don't deal with the tax element in a transaction.

Generally, the group had concerns that having spent time on these activities that perhaps they had not covered all the content in the relevant material.

9

Discussion of Findings

It is clear from the findings that the focus group support the view of many academics researchers (Exeter et al., 2010; Machemer & Crawford, 2007; Huxham, 2005; Tormey & Henchy, 2008) that active learning techniques are an effective tool in developing understanding of a topic. These findings went a step further in the context of a professional practice course in that they found the techniques were also effective in the practice of applying the knowledge in preparing trainees for practice as a solicitor.

Trainees who did not enjoy the lecture adopted a different learning style to the others tending to concentrate on taking notes. On reflection, there is perhaps a lack of understanding of the open-book exam system which focuses on application of the knowledge to real-life scenarios and does not require copious note-taking. This is an issue that needs to be explored and rectified by our teaching teams so that trainees are made more aware of the open-book exam system of evaluation. More worrying, is the emphasis on exams and not on preparing themselves for practice. Although the findings show some trainees do not consider that this form of teaching will assist them in passing exams as Huxham (2005) points out what trainees want may not be what is pedagogically best or merit changing teaching practice. This aspect of the findings was somewhat similar to that found in the Machemer & Crawford study (2007) where students placed most emphasis on techniques that helped pass exams.

It was found that most trainees engaged more and were more interested in a topic when active learning activities were used. This supports the results of the study in University of Auckland (Exeter et al., 2010) and concurs with the views of Biggs (1996). This may be due to keeping their attention focused, helping them grasp a concept more effectively or increasing their confidence in applying the knowledge.

Furthermore, the study found that most trainees from the focus group would like more 'interactive windows' introduced in lectures and a move from the traditional form of lecturing. In the context of the Law Society legal professional training course this would involve consulting and training of associate lecturing staff. This may prove difficult as many of these professionals have their own unique style of lecturing. Moreover, they have been lecturing for many years and may be adverse to change.

The author would consider the use of an active recap technique at the end of the lecture as an easy introduction to the concept of moving away from traditional lecturing. The issue of whether active learning aids in recall is of less significance in the PPC context as it is an applied course and evaluation is by way of an open-book exam.

As Jenkins (1997) points out the use of active learning activities is time-consuming and therefore, there is less time to deliver content during the lecture. Trainees expressed their concerns in this regard. It is important that trainees are aware as discussed by Mazur (1997) and Jenkins (1997) that they will be required to take the initiative to study more of the material themselves both before the lectures to ensure that they can participate in the lecture and afterwards to supplement what was covered in the lecture. This is the approach in the learning model adopted by the Law Society PPC but trainees need to be reminded of the model structure and to be made aware that they need to take more responsibility for their learning. Trainees need to develop as independent learners in preparation for practice as solicitors which requires continuing life-long learning.

Implications for Practice

While the PPC adopts an active learning approach to group work in tutorials the form of lecturing, is for the most part, traditional. The lecture is focused on imparting or transmitting information albeit with real life examples from practice to illustrate a point. Tutorials are student focused while lectures are teacher-centred. It is important to note that one of the objectives of the Bologna Process (Bologna Declaration 1999) is to ensure that learning is student-centred. The traditional lecturing paradigm is not student centred.

Lack of resources and environmental constraints may restrict the use of certain techniques such as movie clips or 'clickers'. Furthermore, active learning involves more demands on the lecturer's preparation time for designing and testing new techniques. This form of teaching by its very nature involves a lot more creativity from lecturers. Often, there is no incentive to invest in teaching methods due to pressure from research obligations.

11

It is the author's view that the limitations or difficulties arising from the use of active instruction should not be an impediment to introducing such techniques. The findings of this research action show that basic 'interactive' windows have positive results on trainees learning experience despite environmental constraints i.e. the requirement to hold large group lectures due to lack of resources. This form of lecturing does not increase costs or strain resources and can be used with other forms of teaching and educational innovations.

Lecturers lack of confidence or perceptions of lack of skill can be easily overcome with training preferably involving practical tools that can be easily adopted by lecturers under time constraints. This is of particular importance in the context of this study as many of the lecturers on the PPC are practising solicitors. This focus on practical teaching skills needs to be grounded with sound evidence of the effectiveness of using these techniques to assist in persuading lecturers to change their lecturing style. The process of adapting a more active learning form of lecturing can be introduced gradually with low-risk short structured activities followed by reflective support for the lecturer. In general, development of lecturers' teaching skills is important. As far back as 1983 Easton & Guskey (1983) concluded that lecturing staff training should improve student achievement as teachers are the foremost priority when improving the quality of education.

Active learning can take advantage of the advancements in visual pedagogy with various forms of media offering unique teaching possibilities in a large lecture setting where resource allow. For example, online simulations of professional practice such as SIMulated Professional Learning Environment (http://simplecommunity.org) used in a lecture context engage trainees in transactional learning.
With many lectures available to trainees via podcast attending the traditional form of lecturing is becoming less enticing. Introducing active techniques to the lecture should encourage trainees to attend to participate in the learning experience.

Conclusion
The findings from the action research study were in line with the large body of evidence which supports the view that student-centred teaching such as the use of active learning techniques increases student engagement, enables them to relate their

learning to their prior knowledge. Moreover, such techniques are effective in assisting students understand and apply knowledge. Similar to other studies in higher education as discussed in the literature review above this study suggests a move away from the traditional lecture is necessary to ensure the effectiveness of legal professional education in Ireland. The overall learning outcome of the PPC course is to provide a general vocational legal education to trainees and give them the skills and knowledge required to practice in the various areas of law. To achieve its learning outcomes it is important that the PPC course develops its lectures to be more interactive and student-centred to ensure the course produces qualified solicitors who can apply the skills and knowledge acquired on the PPC as professionals in practice.

Important directions for future research including in-depth analysis from a training office perspective of the effectiveness of the techniques in preparing trainees for the professional role as solicitors. Also, the extent to which active learning techniques in large group lectures enrich the teaching experience of the practitioner as a lecturer on the PPC requires further investigation.

13

References

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32, 347-364.

Biggs, J. (2003). *Teaching for Quality Learning at University.* Buckingham: SRHE & Open University Press.

Bonwell C., & J.A. Eison (1991). Active Learning: Creating Excitement in the Classroom. *Eric Digest.* Retrieved 27 October 2010, from http://www.oid.ucla.edu/units/tatp/old/lounge/pedagogy/downloads/active-learning-eric.pdf

Burns, R. (1985). Information Impact and Factors Affecting Recall. *Proceedings at the Annual National Conference on Teaching Excellence and Conference of Administrators.* Austin, Texas. Retrieved 12 May 2010, from ERIC database.

Easton, J., & Guskey, T. (1983). Estimating the effects of college, department, course, and teacher on earned credit rates. *Research in Higher Education, 19*(2), 153-8.

Exeter, D. J., Amerantunga, S., Matiu, R., Susan, M., Martin, D., & Dennis, H. (2010). Student engagement in very large classes: the teachers' perspective. *Studies in Higher Education, 35*(7), 761 - 775.

Exley K. (2010). Encouraging Active Learning in lectures. *Aishe-J, 2*(1). Retrieved 27 October 2010, from http://journals.sfu.ca/aishe/index.php/aishe-j/article/view/10/14

Gibbs, G. (1988). *Learning by Doing: a guide to teaching and learning methods.* Oxford: Further Education Unit, Oxford Brookes University.

Gibbs, G. (1992). *Improving the Quality of Student Learning.* Bristol:.Technical and Educational Services Ltd.

Good, T., & Brophy, J. (2003). *Looking in classrooms*. New York: Macmillan.

Huxham, M. (2005). Learning in Lectures: Do 'Interactive Window' Help? *Active Learning in Higher Education, 6*(1), 17-31.

Jenkins, A. (1992). Active Learning in Structured Lectures. In G. Gibbs & A. Jenkins (Eds.), *Teaching in Large Classes in Higher Education* (p.63). London: Kogan Page.

Johnson, N. (1992). Introduction to Law: the workbook method. In G. Gibbs & A. Jenkins (Eds.), *Teaching in Large Classes in Higher Education* (p.85). London: Kogan Page.

Johnstone H., & Percival F. (1976). Attention breaks in Lectures. *Education in Chemistry, 13*(20) 49-50.

Machemer, P. L., & Crawford, P. (2007). Student perceptions of active learning in a large cross-disciplinary classroom. *Active Learning in Higher Education, 8*(1).

Mazur, E. (1997). *Peer Instruction: A User's Manual.* New Jersey: Prentice Hall.

McKeachie, W. J. (1999). *Teaching Tips: Strategies, research and theory for college and university teachers*. Boston: Houghton Mifflin.

McNiff, J., & Whitehead J. (2002). *Action Research: Principles and Practice.* 2nd ed., London: RoutledgeFalmer.

Mulryan-Kyne, C. (2010). Teaching large classes at college and university level: challenges and opportunities. *Teaching in Higher Education, 15*(2), 175-185.

Peterson, R. M. (2001). Course Participation: An active learning approach employing student documentation. *Journal of Marketing Education, 23*, 187-194.

15

SIMPLE Community (2010), SIMulated Professional Learning Environment. Retrieved 1 April 2011, from http://simplecommunity.org.

Smith, L., & Van Doren, D. (2004). The Reality-Based Learning Method: A Simple Method for Keeping Teaching Activities Relevant and Effective. *Journal of Marketing Education*, *26*(66), 66- 73.

Stein, R.F., & Hurd, S. (2000). *Using Student Teams in the Classroom: A Faculty Guide.*Bolton, MA: Anker.

Tormey, R., & Henchy, D. (2008). Re-imagining the traditional lecture: an action research approach to teaching student teachers to 'do' philosophy. *Teaching in Higher Education, 13*(3), 303-314.

Van Dijk, L.A., Van Den, G.C., & Van Keulen, H. (1999). Using Active Instructional Methods in Lectures: A Matter of Skills and Preferences, *Innovations in Education and Teaching International, 36*(4), 260-272.

Ward, A., & Jenkins, A. (1992). The problems of learning and teaching in large classes. In Gibbs G. & Jenkins A. (Eds.), *Teaching in large classes in Higher Education.* London: Kogan Page.