

Role of Lecturers in Curriculum: Differences in Understanding and Interpretation

M. Balla, K. Patrick, P. Ramsden, G. Dall'Alba

This paper presents findings from a study about how academics understand teaching in higher education. It focuses on how they interpret the curriculum. It is one of three connected papers which considers the role of the lecturer in interpreting the curriculum.

The paper examines profiles of lecturers of accountancy, all of whom teach to the same curriculum. It describes differences between lecturers in the way the subject is defined and how students are brought into relation with the subject matter.

The results suggest that lecturers emphasise different aspects of accountancy in their classes - the same topic may be presented as an exercise of judgement in the application of principle, or as a process of becoming familiar with increasingly complex calculations. These differences embody different conceptions of accountancy as a discipline. This paper considers the way in which lecturers in higher education think about the subject they are teaching and how they bring their students into relation with it, which forms what is to be learnt. How this is done is not limited to the process of presentation but considers the content offered to students in the framework of the discipline as seen by the lecturer.

Lecturers in tertiary institutions are regarded as experts equipped to teach in their field of study. Quite often it is the lecturer who decides the content of the curriculum. What the lecturer chooses to teach and to offer students to learn is important because it is offering a concept of what the discipline is about in a framework of the lecturer's understanding of the practice.

Different lecturers have different conceptualisations of the curriculum they are teaching and as a result the subject matter that is offered to students differs. The idea that there are several schools of thought is not new and should be what universities are all about. In fact if we did not have these differences we would see the product of our teaching remain stagnant. An illustration of this is what has happened in anatomy at most traditional medical schools. For decades anatomy has been taught as a series of individual segments seemingly unconnected to a whole. The text books support this view as do examinations. It invites an atomistic not wholistic approach to learning (Saljo, 1984). The subject is structured and interpreted in a way that promotes a view that the discipline deals with the body as a number of discrete units (Balla and Ramsden, in preparation). This way of teaching predominates with few exceptions (Eisenberg, 1991). Yet when students reach the clinical years they have to turn this atomistic view of the discipline into a wholistic understanding in order to carry out what the discipline requires of them.

The idea that the development of the curriculum extends into the classroom (Patrick, 1992) is important in the examination of the differences in what is offered to students to learn. In the case of anatomy, for some purposes an atomistic view of the body may be appropriate but on reflection it will not always be what lecturers want to their students to learn.

In our study these differences become visible through looking at the

interplay between the task of the profession as understood by the lecturer and the task of the student as indicated by what the lecturer is asking the student to understand. In making these differences visible, issues can be raised about the purposes of the course and what it is that the lecturer is trying to achieve.

The Study

Three lecturers in first year accounting courses at three different institutions of higher education were involved in the study. All were teaching Business Finance. The focus of the study was the topic Long Term Project Evaluation. This topic considered five different methods for evaluating business opportunities to decide whether or not the opportunity should be taken up. The methods ranged from simplistic to more complex. The more complex methods involved the concept of time value of money concerning adjustments made to the value of future inflows relative to the value of the dollar in today's terms.

Each lecturer was interviewed and observed delivering the lecture on Long Term Project Evaluation. The interview questions focused on the topic which was being taught. We wanted to find out what the lecturer was going to do in the classroom and why, what the lecturer wanted the students to understand and what might obstruct this. In the lecture we were looking for the way in which the topic was represented and how students were brought into relation with the content. The combined information gave us a picture of how the lecturer saw the discipline of accounting and how this view was embodied in the classroom practice. The result for the students was what they were being offered as the curriculum. The following are profiles of the lecturers, illustrating how each saw their subject and how this was manifested in what they asked students to do. The extracts are from the interview (IV) or the lecture (LECT).

BA: Competence in the application of techniques

BA had been teaching this subject for six years. He gave a two hour lecture and a one hour tutorial each week. The lecture size was 140 to 160 students with approximately half from South East Asia. They were studying to be accountants. The manner in which he presented the lecture was largely by dictating notes to the class. He illustrated the evaluation methods on overheads using different scenarios of business propositions for each of the five methods. He read the lecture from his notes and his delivery was slow enough for students to take notes verbatim. There was little interaction with students.

Accounting is just information. Communicating information. If you look at a company's balance sheet and profit and loss statement and calculate a whole heap of ratios and look at those that fail and those that don't you find that certain variables predict 90% of companies failure. How well that certain measure communicates the correct presentation of the companies position. There isn't any uniform law or procedures for accounting so they approach things in different ways. It's not right or wrong it's different. (IV)

BA's description of the practice of accounting embraces elements of decision making; making choices between alternatives, the predictive value of measures, value judgement (Tversky and Kahneman, 1974). In what way does this differ from the picture that is presented to BA's students in the classroom about the discipline of accounting and how does this fit into our interest in the delivery of the curriculum?

The proposition that we are considering here is that BA presents to his students a different view of accounting and that this is done through the way he frames the subject matter in his lecture. This suggests that the discipline of accounting exists as sets of procedures which are qualitatively better or worse than each other. The task of the practitioner is to be equipped with sets of procedures and be able to use them. For BA this topic is about the techniques used to evaluate business projects. The most important issue for him is to know the techniques. He places this knowledge into a framework of being able to perform to an acceptable standard.

Where they (students) can take a simple case or scenario of 2 pieces of equipment and where they can work out using different methods which one's going to provide the best benefit the greatest net cash flow and using different techniques like non discounting and discounting techniques. I shall be covering the basics and bringing them all up to an acceptable standard. (IV)

His task in teaching students this knowledge is to present them with subject matter 'that should be driven by theory and the academic's role is to promote this.' The academic role takes on significance for him in this process.

We are a univeristy and therefore prompting students to think. (IV)

If you try and make a subject too real world you'll be classed as being non academic. What we are filling up the time with is the basics, the academic side of things. I'm covering the theory. (IV)

The important exercise for him is to hand over to them his knowledge about the techniques so they can reach an acceptable standard. The responsibility lies with him to bestow on them this knowledge.

I shall be covering the basics ... So I shall cover (the techniques) I'll later look at other techniques. I'll be going through you have to present it as concisely and clearly as you can. (IV)

The approach taken to teaching the subject matter is of presenting information (Martin & Balla, 1990) and is promoted through a well ordered, structured process. He chooses to dictate his lectures because 'We are really constrained to the typical lecture note taking type of lecture.' His main task is to cover all the necessary information so they will have received a clear picture. It is his responsibility to make a cogent and audible presentation of the subject matter.

The content as taught concerned classification and definitions of the

evaluation methods. The methods were described and the requisite calculations performed while students copied his workings from the overhead. The advantages and disadvantages of each were listed.

(LECT) Broadly what you can do is classify the methods that can be used in evaluation investment proposals in 2 types.

1. Non discounting techniques
2. Discounting techniques.

What I will do first is to see how you calculate these and then to see their advantages and disadvantages. Then look at investment when they are of different durations.

In his interview BA describes the discipline of accounting as using judgement. What he is offering students to learn and expecting from them, is in contrast to this. But it is not this difference that we are considering here. Our interest concerns what he is presenting to them to learn.

Students may well leave the classroom thinking that there is only one suitable technique to use. This is reinforced by representing the techniques as having qualitative differences based on better or worse. To understand the judgement to be made is not apparent. The way he uses the examples in the classroom places them in the position of students learning the rules and techniques of the profession. This is what the discipline of accounting is about. What it appears he wants them to take away is competence in the application of techniques.

How to apply the different techniques and what are the pitfalls in using the techniques. Why would you use one way of evaluating an investment over another way. If they come away with understanding the advantages and disadvantages of the different techniques and how to apply those techniques that's basically all they need to know. (IV)

The task for these students is to know the meaning of the time value of money and understand the concept through comparison of the techniques. While he is taking them through the relevant exercises he is placing them into the role of students being exposed to a technical procedure. They may well focus on 'This is what you have to remember.' So while he describes a picture that students 'understand that there are several ways to tackle a problem and that it is a case of judgement as to which way you choose' the subject matter as presented invites them to see it as the opposite.

(LECT) Net Present Value technique. This requires you to discount expected cash flows and subtract the initial cost of the project.

The criteria for acceptance of projects should be that you accept all projects with non negative net present values.

We can illustrate that the npv is (on overhead)

$$\text{npv} = f - F \quad (f = \text{cash flows at the end of each period})$$

$$(r = \text{required rate of return})$$

$$(F = \text{cost of project})$$

eg. Cost of project = 100

Cash flow at end of year 1 = 120

Discount rate 10%

npv = 120 - 100

$$\begin{aligned} &= 109.09 - 100 \\ &= 9.09 \end{aligned}$$

This is a positive npv therefore the project is acceptable
Discount rate r should be the rate of return that could be earned on an investment in the capital market with equivalent characteristics of risk and tax status.

What is important is how to calculate the discount rates.

When cash flows occur over a number of periods each period of cash flow will be discounted back to the present. Important to note that projects that have positive npv will add to the value of the firm.

The exercise is not really problematic either for the students or him.

They're pretty bright. I really don't think there is a lot that they don't understand. (IV)

I've been teaching this subject for 6 years and thier exam results have been pretty consistant about 85% pass. (IV)

The content is easy. I understand it. In terms of preparation you don't need to do a great deal of upgrading. (IV)

BA focusses on teaching the techniques of accounting practice to students. This is the purpose of his course. In doing this what he wants them to achieve is an acceptable standard for students doing his course.

AL: The ability to critically analyse

AL was new to teaching this subject. In the lecture were 130 students studying accounting practice for business managers. Her course was a weekly one hour lecture and one hour tutorial. She delivered a largely didactic lecture with little interaction with students. The lecture was well planned, clear and delivered with illustrations and anecdotes relating the topic to examples from her own business experiences. Students were given handouts of the overheads used, an outline of the lecture and the scenario used in the example.

The rhetoric of accounting practice does not clearly reveal the underlying aims or outcomes of the procedures accountants adopt. This view of accounting held by AL is the basis for the curriculum that she presents to the students. It is not that she sees it as a dishonest profession but rather one that will opt for the easiest most convenient approach. The task of the profession as she sees it should be to present their procedures in a more accessible way to their clients.

When the accountant says that won't work to be able to say why won't it and when the accountant says you won't get your return over a few years you say well wait a minute what method have you used and they (students) will know that there are a range of possibilities even if they don't know them off by heart, they are attuned to the possibility that this can be evaluated in a variety of ways and that they know that there

is a source that they can go to to know what the various concepts are so they can make a judgement. Know that most people use the naive ones because they are easiest. Not to let the accountant get away with his own arrangement and to know what the weaknesses are and the alternatives. (IV)

What is her practice; what does she see as her task in teaching them to develop this ability?

AL described her task as 'really trying to give them the ability.' She sees a difficulty for them in understanding the topic as 'they feel lost when there are so many numbers and formulas.' It is her main task then to lead them from the unknown to a position where they can perform appropriately. It is her responsibility to guide them from the simple to the more complex.

I start off with demonstrating that they are simple concepts. Then I introduce the problem of the time value of money I'll quickly demonstrate you can do an adjustment Having done that I'll then use that idea to lead on to the other 3 methods. For that reason I make copies of the worked overhead available to them so they can sit there and follow through the numbers as I demonstrate. (IV)

At the same time she wants to develop their ability to be critical of what is presented to them in the business world.

The capacity for knowledge, to be critical or to be able to be critical. I don't believe that we are giving these people the procedure, but to be critical, to be educated as to what is being presented. (IV)

She sets about this when teaching her curriculum, by focussing on why critical analysis of the methods of evaluation of a business proposition are necessary. She places the students directly into relationship with their role as business managers.

(LECT) Different accountants can give different advice even when dealing with the same situation. It's important to understand what tool is being used and what that tool measures and what it doesn't measure, so you can understand what the information provided to you is really telling you.

She sees that their responsibility is to think about the underlying meaning and how it relates to them.

The only way they can take it in is going through each of those methods when they go away and coming to own the strengths and weaknesses that I put to them. Thinking their way through the relationships. (IV) In her teaching she is systematic in giving students a way of being critical. They are required to know the meaning of the time value of money and the differences between the evaluation methods. In the following extract she describes the net present value method using an example which draws on the language of the business manager such as profits, costs and cash flows.

(LECT) In evaluating a long term project we need to take into account this time value of money which is affected by the possibility of reinvesting your money now and also by the probability of inflation causing future \$'s not to be worth as much as they are today. To do that it is possible to use tools like the NPV tables, on back of sheets handed out. (explains how to use tables)

We use the npv method. (students refer to example of business opportunity on handout)

This year we are going to have to make a cash outflow of \$34000. That is going to cost us in terms of 1991 \$'s \$34000. We are saying that in year 1 we will receive \$10000 worth of cash, year 2 the same and so on, to year 5 and additional \$4000 from the sale of the machine at its residual value. What we are able to do is work out the net cash flows in each of those years, ... we are able to use the npv tables to determine the amount by which these future cash flows will be devalued or discounted at the required rate of return of this firm, 12%.

Therefore it is possible to extend that to show that the \$10000 received next year will be worth 8928 of today's \$'s and so on.

In this case the inflow, the value in today's \$'s of all of the inflows of this machine will be greater than the outflow which suggests that the machine will make a contribution to the firm and therefore we should proceed. ... In this case we are going to receive more from the machine in comparable \$'s than we are going to pay on it.

It is not just that she compares the different methods to show the different results, what is important is that she does it through continually making it relevant to their role as managers. What she offers to them to learn is the idea of being critical and she provides the essential knowledge in order to do this. As business managers this would be so they can increase their understanding of their own business. There is an implicit warning 'look what can happen if you don't understand.' She wants students to take away from the classroom a reason why they should be critical of the processes used and the skills with which to do it. The exercise for her is not without its difficulties.

Problems present in different ways in business and the student may not recognise on first reading that this is the sort of problem we are talking about. (IV)

She sees that students may have a problem with moving from the general to the specific recognising what distinguishes between problems or even that a distinction exists. She has not addressed this in her teaching but the corollary that problems in business require different ways of handling

depending on the outcome desired has been contained in her hidden agenda. AL focusses on teaching the ability to be critical The purpose of this is so that students can be effective in their roles as business managers.

CT: Decision making in uncertainty

CT had been teaching this subject for five years. He had designed a course that had a one hour lecture, a tutorial and a two hour demonstration each week. The lecture was observed for our study. The class size was

approximately 300 and more than half the class were Asian. Students were studying to be accountants or business managers.

His presentation was clear and he spoke to the points outlined on the overheads. Students were given a comprehensive outline of the course and topic, readings and references. The overheads used in the lecture were available on reserve in the library and students were expected to come to the lecture having read relevant texts and with a copy of the overheads. CT's view of the discipline of accounting is clearly identified in what he offers the students to study. Accounting is variations on a theme. The theme is that problems run to a pattern and the variation in the pattern is due to differences in the importance placed on contributing variables. Accountants have to employ judgement in selecting the method to fit the desired outcome and taking the variables into account. The task of the profession is to use decision making and judgement in the application of the available procedures to produce results.

It's not a subject where you can teach them how to handle every situation that might arise but really trying to give them a way of thinking about things so that when they get in the work force and are confronted with some situation they can say well how can I analyse that or what do I have to look for rather than saying that this fits into this category here so that I'll use technique no. 10 type of thing. There are new developments all the time, off the shelf techniques that you can add to sort them out. But you can go back to the underlying framework and recognise what you are dealing with. (IV)

He has given considerable attention to the question of his task in teaching them to understand this role of decision making. His main aim is to encourage them to take responsibility but he guides them to do this. His expressed aim is that they direct their own learning. In effect he is handing the decision of how much effort to put into study to the students. He is quite specific about the framework in which to work and the supporting material he provides is comprehensive. At the same time he encourages them to take responsibility and show initiative in the task. He sees a difficulty for them in grasping this way of learning but what he wants them to focus on in class is the content of what he says rather than copying the overheads of which they should have a copy. His reason for this is that it is the clarification and elaboration of how and why the procedures are adopted in reality which is the important information to grasp. This is not found in text books. What he is doing is clearly not just thinking about the content of the subject matter but consciously thinking about the way that subject matter should be taught. It is his responsibility to bring the students into a relationship with the subject so they will be able to practice accountancy in a framework of decision making. He gives them strategies in order to do this.

What I've tried to do, and I revise it often, is to make it more coherent, with the structure of the foundations, the techniques and then the theoretical bit. To try and demystify it a bit. (IV)

With any financial problem you should be visualising not just the words on the paper but seeing in your minds a time line with cash flows on them. I'm giving them a sort of a means of analysis. (IV)
Their responsibility is to come to the class well prepared and ready to

raise issues. The role of the lecture 'is to identify and explore issues

For CT teaching his curriculum focusses on the role of decision making in evaluating projects. He places this role into a framework an accountant maximising the market value of the firm. In the lecture his description of what the methods of evaluation can do and how they can be manipulated brings the students directly into relationship with their role as decision makers.

(LECT) So what we are looking at now is the investment decision area. We are also basically dealing with the world of uncertainty, we have got to assume that the cash flows of the forecast are going to occur and making adjustments for possible variations we have at this stage.

(LECT) So the general rule of the decision making process involves those steps there, the projects will be generated from some part of the company's operating areas, you will need to know once the project is defined where the cash flows are and undertake some evaluation of those cash flows. Then you need some technique which will help you solve if that part of the project should go ahead or not and then there will be the monitor which takes place after that.

In his teaching he provides the underlying concepts which they use as a framework. They are required to know the relevance of time value of money in a framework of the relationship that exists between cash, time and risk.

(LECT) There is no point having a business showing profit if there is no cash coming in because you can't pay your bills and wages with profits you have to pay them with cash.

Whether there is some adjustment to the time value and how you treat money received at the start of the year is the same as money at the end of the year ... a dollar today is not the same as a dollar in a years time. And not all cash flows are certain. There is a certain risk associated with some you can be pretty sure and others you are much more uncertain about. You have to allow for that.

The lecturer demonstrated differences between the methods of evaluation focussing on the decisions to be made to maximise a company's profit. In this way what he offers to them to learn is the idea of responsibility in decision making and that they will be equipped to take this role.

(LECT) So you want to identify a technique which is going to help us select which project should be undertaken and the criteria we want to build into there is that the projects selected are going to be those which maximize the market value of the firm. So you have got that underlying goal there for finding the techniques. So you want to be able to evaluate individual projects on their own, we want to be able to select from competing projects as well.

He places them in the position of accountants whose job it is to know the impact of cash, time and risk on maximising the value of the firm. The implicit message is 'look what I can do when I understand.' He wants them to take away from the classroom an understanding of the power of their decision making role in determining a financial outcome.

The following is how he describes net present value to the students.

(LECT) It is the present value net of the outlay required to generate the income stream if you like. The receipts in that simple example, \$100 take out the outlay \$60 and you will have a net present value of \$40. It is telling you that in today's dollars as a result of undertaking the project you are getting back more in today's dollars than in your outlay in today's dollars, and that should make you better off. If the project has got a negative net present value it means what you are getting back in today's terms is going to be less than what you are outlaying to generate that return. So in other words you are basically throwing money away, you are losing money

(LECT) So here using the same figures as we did before, so the previous value of the net cash flows is \$20,547. The outlay required to generate that is \$18,000 so it has got a net present value of \$2,547. In other words if you outlayed \$18,000 today you would get back \$20,547 so your \$2,547 better off in today's terms as a result of undertaking that project. Your wealth in today's terms has increased because you've undertaken that project.

Then of course this meets the overall goal of shareholder wealth and maximization. The decision criteria here is that you accept projects that have NPV greater than or equal to zero.

CT sees that he has a problem with some aspects of his teaching. Lack of preparation on the part of students means that they focus on the content of the overheads rather than the issues that are raised relative to their content.

I use overheads and put them on reserve so they won't copy them down. I don't really like using overheads that much I find they get to distracted copying it all down. (IV)

(LECT) I wouldn't try and copy everything down that appears on the overheads. They are copy photo-reduced so all the overheads appear on about four or five pages on reserve if you want to copy those. The lecturer has difficulty actually engaging students in the task of applying the concepts in a decision making framework. He recognises this and is unsure how to get to that final point although in the demonstration lecture he is attempting it.

CT focusses on the decisions made and their influence on outcomes. His

purpose in doing this is for students to understand their function as accountants.

DISCUSSION

The messages to students about what it is they are being offered to learn

is not just contained in the lecture notes or text books or course outline. It is the hidden agenda contained in what the lecturer presents as the subject matter, how the lecturer explains it, and the way the students are brought into relationship with what is to be taught.

The three lecturers studied here each describe the discipline as being more than the application of technical skills. Yet a difference exists in what is eventually presented to students. The students in BA's lecture are being asked to study a list of rules and sets of procedures that make up methods of evaluating projects. The framework in which this is done is that of a lecturer giving his knowledge to a class of students. In a sense the way of teaching this subject is taken for granted. The picture the students will end up getting is that the discipline itself is made up of a set of rules and procedures which are qualitatively different. How to do these procedures is what needs to be learnt, not why. His concern lies with the application of the technique rather than analysis of the method.

For the second lecturer, AL, it is not the application that she focusses on but developing awareness that evaluation methods may be used which will not be appropriate for the desired outcome. These are not necessarily wrong, but appropriate or inappropriate for the goal. Students are being offered the idea that they can challenge their use in reality. She brings them into relationship with the subject matter in their capacity as business managers. In this way she addresses what is to be taught through the actions of her teaching. What they are being asked to understand is the relationship between that role, their knowledge of the procedures available and how the accountant operates in practice.

CT on the other hand focusses on the role of decision making by highlighting the responsibility held by the accountant in maximising profit. The evaluation methods demonstrate that different outcomes can be created depending on the ability of the accountant to understand the function of the accounting variables. To do this he teaches in a way that actively brings them into the role of accountants, applying the principles of decision making to their everyday life.

CONCLUSION

Our focus in this study is to expose the curriculum that is being offered to students to learn. This is not necessarily made explicit in course outlines and constitutes a hidden agenda. We have looked at this in a way which reveals differences in what is presented to students between lecturers teaching to the same course outline. In making these differences visible issues can be raised about the purposes of the course and what it is that the lecturer is trying to achieve.

In the field of curriculum development this importance is clearly acknowledged. It is easy to recognise the content of courses as seen in the course outline but an assumption cannot be made from this alone about what is being taught. The lecturer must understand what the content as delivered is actually teaching. To do this it is first necessary for the lecturer to reflect on their view of the discipline before addressing issues of the curriculum to find a fit between what it is that is assumed to be taught and what is actually taught.

REFERENCES

Balla M. and Ramsden P. (In preparation) The role of teachers in

Curriculum: Understanding Anatomy

Eisenberg N. 1991 Approaches to Learning Anatomy In P Ramsden (Ed)
Improving learning: New Perspectives. London. Kogan Page

Martin E. and Balla M. 1991 Conceptions of Teaching and Implications for
Learning In B.Ross (Ed) Teaching for Effective Learning. Research and
Development in Higher Education. Sydney HERDSA

Marton F. and Saljo. R, 1984 Approaches to learning. In F. Marton, D.
Hounsell and

N.Entwistle (Eds) The Experience of Learning. Edinburgh. Scottish
Academic Press

Patrick. K. AARE 1992 Paper presentation

Tversky .A. and Kahneman. D, 1974 Judgment Under Uncertainty: Heuristics
and Biases Science 185: 1124-31.

Ä Teachers and Curriculum at Year 12: Constructing an Object of Study