

Learning at Master's Level

Jenny Moon, Centre for Excellence in Media Practice, Bournemouth University, England

What I am going to cover

My aim is to explore some issues about the kind of learning that you should expect at Master's level. This will be based on two sources.

-ideas and words that are contained in level descriptors – descriptions of what it is that we hope that learners will achieve or will have achieved at the end of a level in higher education.

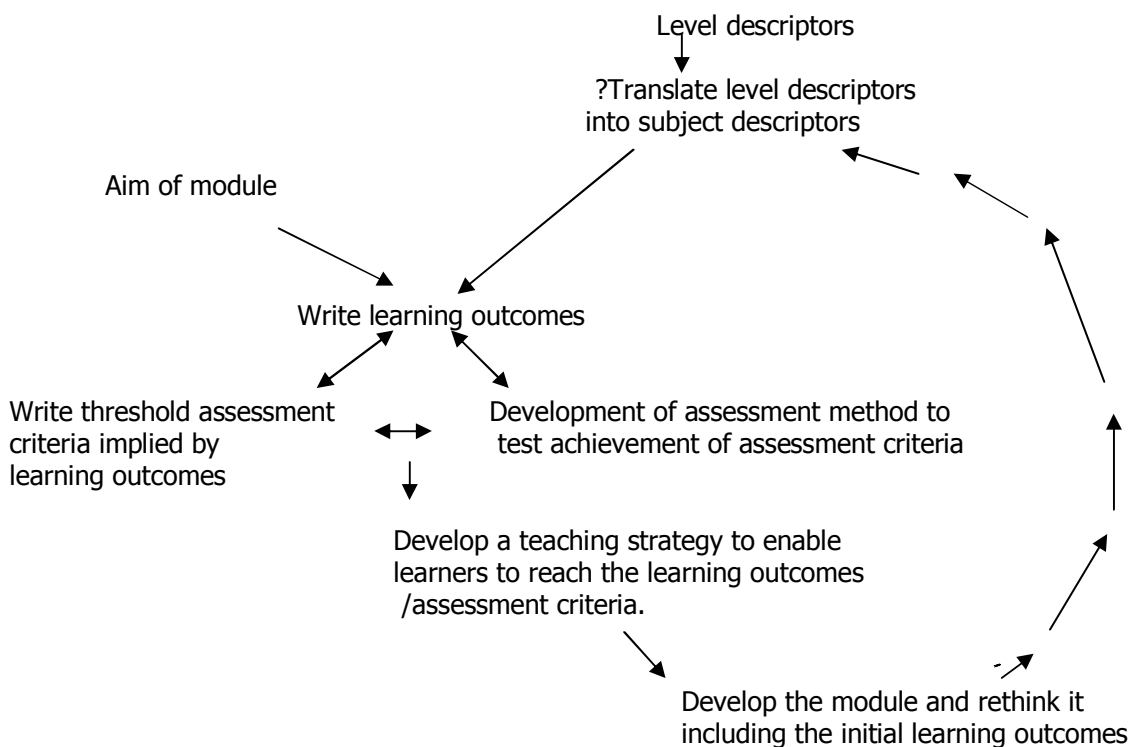
-ideas that derive from material on student learning

Your part of the task will be to apply the ideas that I give to your discipline, your students and to the qualities of a programme that are related in particular towards the labour market here.

Looking at level or qualification descriptors

We first look at a basic model of module or course development to consider how level descriptors work.

Basic model of module development



Level or qualification descriptors tell us what we should expect students to have achieved at the end of a level or qualification in education. You should always look at the level below and the level above to get the sense of the level in which you are interested. Descriptors provide you with guidance on how to write learning outcomes because they indicate standards.

Below I have provided the relevant levels for the **European Qualifications Framework** that provides information on expected levels of achievement in the European Higher Education Area for study and work-related programmes.

Level	Knowledge – theoretical and factual	Skills – cognitive and practical	Competences – responsibility and autonomy
6 Bachelors	-advanced knowledge of a field of work or study involving a critical understanding of theories and principles	- advanced skills demonstrating mastery and innovation, required to solve complex and unpredictable problems in an specialised field of work or study	- manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts - take responsibility for managing professional development of individuals and groups
7 Masters	- highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study as the basis for original thinking and/or research - critical awareness of knowledge issues in a field and at the interface between different fields	- specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	- manage and transform work or study contexts that are complex, unpredictable and require strategic approaches - take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
8 PhD Doctorate	- knowledge at the most advanced frontier of a field of work or study and at the interface between fields	- the most advanced and specialised skills and techniques including synthesis and evaluation required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	- demonstrate substantial innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

It is very useful to translate these statements into the language that is appropriate to your discipline or programmes and perhaps to expand them. You need to keep to the implied standards. This will help you to write appropriate learning outcomes for courses/modules.

Strands from level descriptors

I was involved in the development of an early set of level descriptors in the UK. We invited academics from a very wide range of disciplines to discussions about what they expected their students to achieve at different levels in higher education. There were no 'rules' about the kinds of information that were used to describe student achievement. Years

later, I looked back at the descriptors to see what characteristics we had chosen to use to create the descriptors. I provide below the areas of learning and the contexts of learning that we chose to use as the best ways of indicating student achievement. You may find the material useful in constructing programmes. Looking at this list may help you to think about the kinds of components that it are useful for description of a programme. Most of the items below are natural components of academic study, but you will see the component below is clearly different.

Learner's skills that are not directly related to the development of academic learning – these may be vocational or employability-related;

In programmes related to the labour market, you may quite a bit to add in here. It is an interesting issue as to whether the skills you add in order to orientate the programme to the labour market need to be at Master's level. Personally I think not.

Strands that relate to the context of the learning

Change in the complexity of knowledge that is presented – the degree of challenge of the material of learning to the learner;

Change in the complexity of tasks that the learner is expected to be able to tackle. This may be expressed in terms of the degree of predictability or structure in the task;

Change in the support for or guidance given to learners - the degree of management of that learning or guidance in tasks and the amount of student autonomy allowed for or expected.

Strands that relate to the learner's qualities and abilities

Learner's skills that are not directly related to the development of academic learning – these may be vocational or employability-related;

The capacity of learners to be autonomous - the degree of the learner's responsibilities for her actions in the learning and tackling tasks in the context of formal education and / or in the workplace;

The ability of learners to study, to research and to manage learning resources and information;

Self-awareness, self-knowledge, self-management and the ability to evaluate own performance;

The sophistication of the learner's skills of manipulation of knowledge (analysis, synthesis evaluation and application);

The capacity of the learner to deploy knowledge in tackling tasks / solving problems;

The learner's range of knowledge and understanding of a discipline / disciplines;

The learner's understanding of the nature of knowledge and knowing.

Learning at Master's level

I want to explore the last of the strands I have listed above:

The learner's understanding of the nature of knowledge and knowing

I think that within this kind of understanding, there are some ideas that are particularly important to working at Master's level.

The term 'epistemology' is used here to refer to the learner's view of the nature of knowledge. Epistemological development has been the subject of a number of studies over the last half century that indicate that there is a developmental sequence in learners' epistemological beliefs and that this influences the manner in which learners function intellectually and it significantly affects their capacity for critical thinking, their ability to understand the nature of knowledge, the management of situations of uncertainty, their understanding of the nature of scientific endeavour and the idea of theory and its relationship to evidence.

I mainly refer to four substantial studies that broadly coincide on the nature of the continuum for epistemological development that they propose from experimental. The studies differ in the terminology that they use, in the populations that they studied, in the research method, in their focus on gender issues and in the number of stages in the continuum that they identified. They are Perry (1970), Belenky, Clinchy, Goldberger and Tarule (1986), King and Kitchener (1994) and Baxter Magolda (1992, 1994, 1996) (see comment about references below). With the exception of King and Kitchener, the research method was semi-structured interviewing. King and Kitchener asked subjects to work with ill-structured problems and then discussed with them their experience of the process.

Broadly the studies suggest that there is a qualitative change that occurs in learners' conceptions of knowledge and this is important for the processes of learning at the higher education stage. To describe this, I use Baxter Magolda's terminology for description, though I consider the description of stages a linguistically convenient means of describing a continuum. In this continuum of development, learners generally progress from 'absolute knowing' in which they tend to see knowledge as 'right or wrong', black or white – as a series of facts that they will absorb from a teacher who has the facts. Knowledge tends to be viewed as a commodity. They see teaching as the process of the 'passing over' of knowledge'. The teacher is expert. They shift towards the 'contextual knowing' phase in which they can (eventually) come to recognize that there may be a range of perspectives on any matter. At this stage they can also understand and assess in a sophisticated manner, the relationships between the different perspectives– that might be called theories or paradigms – and the issue in question. They can work in situations of uncertainty, taking appropriate measures to manage the situation in relation to their current purposes. They see their 'teachers' as partners in the development of knowledge. Only four of the undergraduates in Baxter Magolda's original study (1992) actually reached this stage – but I would see this stage – of contextual knowing - as epitomising the stage to which we should expect learners on a Master's programme to reach.

In some later work, Baxter Magolda suggested that learners progress when they are challenged in higher education learning environments or in situations where they need to exercise independent judgements (eg in work placements or in professional situations), However, they do not do this 'smoothly' but by shifting forwards and sometimes backwards in different elements of this progression as they encounter different challenges to their learning. Most of the population largely functions with absolutist conceptions of knowledge – and it is the language of the absolutist stage that largely is used for general reference to knowledge and learning.

Below, I give you an outline of the four stages of epistemological development described by Baxter Magolda. I have also given you an example of what a student at each stage might say about her or his learning.

The stages of thinking described by Baxter Magolda (1992)

Stage of Absolute Knowing

In this stage knowledge is seen as certain or absolute. It is the least developed stage in Baxter Magolda's scheme. Learners believe that absolute answers exist in all areas of knowledge. When there is uncertainty it is because there is not access to the 'right' answers. Such learners may recognise that opinions can differ between experts but this is differences of detail, opinion or misinformation. Formal learning is seen as a matter of absorption of the knowledge of the experts (eg teachers). Learning methods are based on absorbing and remembering.

- **Eg Julia:** I like clear lectures where the lecturer does not mess around giving us lots of different theories for everything – but just tells us what we need to know and we can get on and learn it.

Transitional stage

There is partial certainty and partial uncertainty. Learners start to have some doubts about certainty and consider that authorities may differ in view because there is uncertainty. Learners see themselves as needing to understand rather than just acquire knowledge so that they may make judgements as to how best to apply it. Teachers are seen as facilitating the understanding and the application of knowledge.

- **Eg Ivan:** I thought I came to college to stuff my head with what is known. Now I feel confused because there are lots of things that are not certain. I have to think about what I do with those ideas. College learning is different from what I thought.

Independent knowing

Learners understand that there is uncertainty in knowledge but they consider that everyone should develop her/his own beliefs or opinions. This would seem to be an embryonic form of the more sophisticated stage of contextual knowing. Learners now expect to have an opinion and can begin to think through issues and to express themselves. They also regard their peers as having useful contributions to make to the development of their opinions. They will expect teachers to support the development of independent views, providing a context for exploration. However 'In the excitement over independent thinking, the idea of judging some perspectives as better or worse is overlooked' (Baxter Magolda 1992:55).

- **Eg Ella:** I used to think that everything was so certain – like there was a right answer for everything and what was not right was wrong. Now I have become more aware of people arguing over issues, debating. I suppose it is a matter of coming to your own conclusions and sticking to those.
-

Contextual knowing

This stage is one in which knowledge is understood to be constructed, and the way in which knowledge is constructed is understood in relation to the consideration of the quality of knowledge claims and the context in which they are made is taken into account. Opinions are now be supported by evidence. The view of the teacher is of a partner in the development of appropriate knowledge.

- **Eg Krishna:** The tutor I have got now would have driven me mad last year. He just sits there and says 'OK, what do you think about this theory of coastal erosion?' He goes quiet and we discuss it. Then he will make the odd remark that usually sets us off again. I jot down some notes so that I take everything into consideration when I have to write it all up.

An exercise on epistemological development to do on your own:

Epistemological development in perceptions of teaching, learning and the relationships between learners and teachers

This is an exercise that is based on the Baxter Magolda stages of epistemological development (above) and it is designed for teachers or for advanced students. The exercise can be used to introduce a discussion about the processes of teaching for new teachers, or to help learners to understand epistemological development. In the exercise there are statements from twelve fictitious students directly about their experiences of learning and four statements from teachers about their teaching. Three student statements and one teacher statement belongs to each of the four Baxter Magolda stages (above) – but they are mixed up at present. The task is to put the statements of teachers and students into the appropriate stages. The 'answers' are below, though it is perfectly legitimate to disagree with them!!

Statements about learning and teaching

Student - Jan: Good learning for me is when I listen really well in class and get down exactly what the teacher says - she is there to tell us what we need to know, after all. I don't like it when I have to work out what is the best way of explaining something when only one way can be the right one.

Student - Mette: There are lots of things that are uncertain. To learn and make knowledge is to put ideas together, to make sense of them and to be able to say they make sense, knowing that they might make different sense to another person.

Student - Sam: We do not know everything and sometimes different people hold different views about a theory or idea. We have to learn to judge which theory is right so we have to learn to think. Being objective is a way of avoiding personal bias and finding the true answer.

Student - Tony: I realise that learning is not just a matter of getting facts down. We need to know about research and there are obviously things that have not been discovered yet. We have to be able to apply knowledge and to cope with situations of uncertainty. That is more than just learning facts

Student - Frederick: I like to make up my own mind about things and that is how it should be. Sometimes the -ideas come from teachers, other times from other sources. When things are uncertain or not clearly agreed, I have to be clear what I think.

Student - Joanne: We were given several theories in chemistry to explain a particular phenomenon. Our tutor did not make it quite clear which was most right - I guess that he wants us to think.

Student - Andres: We have to be objective - to know the facts about a matter. We put them down and make sure that we do not colour them with our biases.

Student - Elke: There is lots of uncertainty. Knowing facts only takes us so far and we have to learn to take a stand based on what we know and an understanding of objectivity.

Student – Mike: Knowledge is basically subjective since we come to it by relating new ideas to what we know already. We have to seek to be as objective as we can be in our judgements by recognizing, and where possible taking account of subjective influences.

Student - Sue: In biology, we are given lecture notes on exactly what we have to know for the test. That is what I call good education - clear and to the point - and no more.

Student - Hugo: In theology we listened to interviews with prominent theologians arguing for the existence of God. I was open to persuasion, almost willing them to give me an understanding of how they hold their faiths. My mind was not changed, though now I want to know more of what they all mean by 'faith'.

Student - Ed: In our politics seminar we argued about the position of Israel in the Middle East Conflict. It felt good to be holding my own. Nothing that any of the others said made me waver at all from what I think. I cannot start to see how the others got to how they think.

Teacher - Helen I cover the syllabus, but I try to get learners to think as they will have to cope on their own, applying ideas and sorting out right and wrong for themselves.

Teacher - Andrew: We are all in this game of learning and developing knowledge. I facilitate the knowledge making process, but recognise that sometimes my understanding is changed by contact with their ideas

Teacher - Leo I help the learners to engage in their own thinking. They need to read around a topic so they can develop their own views. I keep challenging them to nurture their development and expect them to come back at me

Teacher - Tom As a teacher, my duty is to give them what I think that they need to learn. We go through the syllabus systematically and I make the material as easy as possible for learning.

'Answers' These teachers and students are grouped in the following manner:

Absolute views of knowledge: Jan, Sue, Andres and Tom, (teacher)

Transitional views of knowledge: Tony, Joanne, Sam and Helen (teacher)

Independent views of knowledge: Frederick, Elke, Ed and Leo (teacher)

Contextual views of knowledge: Mette, Hugo, Mike and Andrew (teacher)

You can read more epistemological development in my book on critical thinking (2008) 'Critical Thinking, an exploration of theory and practice' or at <http://ESCalate.ac.uk/2041>. You will also find the references there.

Approaches to learning

Research on learning over the last twenty years has suggested that students differ in their approach to learning and the approach that they take has a lot to do with how successful they are as learners. Looking at this simplistically, students might take one of three approaches – though they may differ in their approach for different subject matter. The approaches are:

Surface approach: The students taking this approach are not deeply motivated in their learning and tend to try to memorise rather than understand their work. They are not interested in study for its own sake, tend to keep their work to the minimum and do not willingly follow up with extra reading. More specifically their intention is to cope with a course by:

- memorising facts and procedures routinely;
- studying without reflecting on either purpose or strategy;
- treating the course as unrelated bits of knowledge;

They tend to have difficulty in making sense of new ideas presented and as a cause or consequence of a surface approach to learning, they may feel worried about work.

Deep approach: Students who take this approach are usually interested in their work and will follow up material because of their interest. They study with the intention of making sense and understanding. They are learners who actively question and seek to relate current learning to what they have learnt before. More specifically their intention is to understand ideas for themselves self by -

- relating ideas to previous knowledge and experience;
- becoming actively involved in course content;
- seeking patterns and underlying principles;
- checking evidence and relating it to conclusions.

Strategic approach: Those who take this approach tend to work in whatever way will give them good marks. They are not necessarily very bright or interested students, but their goal is achieving. They are competitive. Their intention is to gain the highest grades possible by -

- putting consistent effort into studying;
- finding the right conditions and materials for studying;
- managing time and effort effectively;
- being alert to assessment requirements and criteria;
- gearing work to the perceived preferences of lecturers / tutors.

At Master's level, I consider that you need to take a deep approach but you need also to be strategic. Those students who just take a deep approach may not succeed very well. A very important principle lies behind the identification of approaches to learning. It is that classroom teachers or lecturers can ensure that students take an appropriate approach to learning by ensuring that the assessment tasks you set make the students learn appropriately. So if you want to get them to take a deep approach, you need to ensure that they feel that it is only this approach that will enable them to be successful in their studies.

