CHAPTER 1

Welcome to the world of secondary teaching and pedagogy

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LEARNING OBJECTIVES

After reading this chapter you should be able to:

- Understand the attributes of a quality teacher and the centrality of pedagogy in becoming one
- Begin to understand the complexity of pedagogical expertise and how it is acquired through teacher preparation
- Consider how to develop a repertoire of professional pedagogical practices as you simultaneously learn to become a secondary teacher.

Key terms

Content knowledge
Expert teachers’ behaviours
Pedagogical content knowledge
Pedagogical knowledge
Pedagogical skills
Pedagogy
Quality teaching
Reflection
Teacher attributes
Teacher preparation
Introduction

This chapter introduces you to the world of pedagogy and the complex process of becoming a teacher with recognition for pedagogical expertise in secondary education. The first section of this chapter challenges you to think about the attributes of a quality teacher and the centrality of pedagogy. The second section defines pedagogy and how it is acquired, and argues that the essence of good secondary teaching is pedagogical expertise. The final section provides advice on how you might go about developing a repertoire of professional pedagogical practices while simultaneously becoming a teacher.

What are the attributes of a secondary school teacher?

In a very early educational text, Highet (1951) claimed that ‘we all teach’ suggesting that anybody who influences the life of another can be called a teacher. In Australia, as in the United Kingdom and the United States, teaching for many years lacked recognition as a profession – ‘the learned callings all agree are physics, law, divinity … [with] teaching [perceived to be] an ungrateful trade’ (Highet 1951 cited in Lester Smith 1957, p. 150). In contrast, during an even earlier period of western history a headmaster named Thring asked a key question: ‘How can those who have never taught a child be an authority on teaching?’ And further, ‘Is teaching the only subject in which ignorance is knowledge?’ (Thring, 1899, p. 17). While these questions were posed in the past they are still relevant today When the teaching profession is criticised or undermined by members of the government or the public, there appears to be a lack of recognition for the skills and knowledge required by professionals in the field.

APPLIED LEARNING ACTIVITY 1.1

Welcome to the world of secondary education. Your first questions may well be:

- Do I have what it takes to become a secondary teacher?
- Do I demonstrate the attributes of a good secondary teacher?

Before you read on, you may like to list what you think these attributes are. Discuss these ideas with your peers.

At the outset it must be said that there is no clear answer to these two questions. It is the process of becoming a teacher that is far more important and should
be central to your thinking during your **teacher preparation** program. You should be auditing your growth and development over time. How to do so will be explained later. While there is no single or clear definition of a good teacher, there have been many semi-empirical attempts over the past 50 years to articulate the attributes of a good one. Lewis et al. (1999) note that ‘teacher quality is a complex phenomenon, and there is little consensus on what it is or how to measure it’ (p. 7). Nevertheless, many papers have been published suggesting an array of qualities that underpin the concept of a good teacher. There are certainly no comprehensive or conclusive findings on this topic throughout the Western world; however, there are many reports and research publications that provide further data for you to think about. The House of Commons in the United Kingdom (2012) refer to the passion for teaching and learning as paramount to success as a teacher, along with the qualities of resilience, communication and relational skills. Stronge et al. (2011), and Chong and Cheah (2009) offer lists of attributes that may be of interest to novice teachers in preparation programs. These attributes include those with a cognitive focus (for example, specialised knowledge, ability to think creatively), as well as sensitivity to diversity, enthusiasm, empathy, being responsible and caring. They also include communication and organisational skills. How do these compare to those that you listed earlier?

The research into the qualities required for the teaching profession includes: Adams and Singh, 1998; Agne, 1992; Collinson et al., 1999; McBer, 2000). Strong et al. (2011) make the point that when we refer to **teacher effectiveness** it is not clear whether we should be focussing on teacher inputs (for example, qualifications), teaching process (for example, instructional practices), the product of teaching (for example, effects on student learning), or a composite of these elements (Strong et al., 2011, p. 340). Despite this lack of clarity, there are some particular **teacher attributes** that, according to the research, do have a strong correlation with student learning and these can be nurtured and developed throughout teacher preparation programs. There is a general consensus that quality teachers have developed:

- **Strong affective skills.** Students demonstrate higher levels of achievement when their teachers show that they care about their students.
- **Fairness and respect.** As demonstrated when teachers have positive relationships with their students.
- **Commitment to lifelong learning.** Teachers who are passionate and knowledgeable about the subjects they teach are admired and respected. Their passion inspires a thirst for knowledge and love of learning in their students.
- **Ethical dispositions.**
- **Capacity to be responsive to changing contexts.**
- **Strong, high-order interpersonal skills.** (Adapted from Stronge et al., 2011).
One of the more recent research reports by Hattie (2003) identifies three dimensions of expert teachers’ behaviours: challenge, deep representation, and monitoring and feedback. While the earlier research is contestable in terms of its validity, the more recent works of Hattie (2009) offer reliable research that partially represents the challenge of characterising the type of teachers who have a positive impact on student learning. In a later publication Hattie (2012) claims that ‘Expert teachers and experienced teachers do not differ in the amount of knowledge that they have about curriculum matters or knowledge about teaching strategies – but expert teachers do differ in how they organise and use this content knowledge’ (p. 25). You could reflect on this characterisation from the recent literature as you go through your training and when you become a beginning teacher after graduation.

Are there professional standards that shape a teacher?

The government in Australia, as in most countries of the developed world, has been so interested in the quality of teaching, that they have developed a set of professional standards for graduate teachers. The AITSL Standards (2011) outline the knowledge, attributes, capacities and dispositions that underpin quality teaching – all of which you should aim to develop as you train to be a teacher. They include valuing learning, appreciating diversity, demonstrating skills in organisation, planning and communication.

The AITSL Professional Standards for Teachers can be accessed via www.cambridge.edu.au/academic/secondaryschool

 Applied Learning Activity 1.2

Obtain a copy of the Australian Professional Standards for Teachers (AITSL, 2011) and peruse the attributes that are listed as indicators of a quality teacher. You may already have some of these attributes as a result of your life experiences and/or previous occupations. The Standards are the ‘blueprint’ for your development as a teacher so it is essential to read them carefully.

This is a useful task to engage in at the beginning of your program, and one you will revisit many times as the program unfolds. The Standards serve as the foundation and guiding framework – and as the ‘conversation piece’ – of the formation of who you become as a secondary teacher. You will find more information...
about the Standards in Chapter 14, which also outlines resources available for you through the Australian Institute of Teaching and School Leadership (AITSL). You should maintain a focus on the Standards and demonstrate your understanding of them in all units of your course. It is the joint responsibility of program providers, mentor teachers, and industry partners to assist you in providing evidence that the Standards have been met by the time you graduate and when you transition into the profession. The Standards provide the blueprint for secondary teacher graduates to develop the desired qualities of their profession.

As you go through your program the Standards will provide a self-auditing tool for you to monitor your growth and development across university lectures and school-based field experiences. By allowing these Standards to provide a platform for learning and critical discussion, you will build evidence of your learning journey and the development of required attributes. On graduation, you will need to provide a portfolio (or equivalent) that demonstrates that these Standards have been met and to what degree. The development of the portfolio will be discussed in greater depth in Chapter 15. For now, early in your program, it is useful for you to think about establishing a framework for the portfolio. You will then store evidence of your growth and development as you go through your program. A tool such as the following may be a helpful beginning, or you may like to store this framework for later use as your teacher preparation program unfolds.

**Pedagogy: The essence of becoming a teacher**

We will turn now to pedagogy – the essence of becoming a secondary teacher.

Casey and Childs (2007) quote from the relevant literature to discuss the knowledge and skills that beginning teachers need to have in order to succeed in the classroom. They include **content knowledge**, **pedagogical knowledge** and **pedagogical skills**. This takes us away from attributes to an understanding of knowledge components and is an important consideration in the secondary teaching profession.

Some authors argue that pedagogy is the art of teaching. Others take a standpoint that it is the science of teaching. You may think of it as the interplay between both: pedagogy is the art and science of teaching (Bennett & Rolheiser, 2001). This topic is always up for discussion. ‘Pedagogy’ originally meant ‘the teaching of children’ but through common usage it now refers to the act of teaching all age groups. However, in 1984 Knowles (1984) claimed the term ‘andragogy’ to describe the teaching of adults, arguing that this is shaped by very different theories of learning. For this context, we will adopt the common understanding in the profession that pedagogy refers to the engagement of students in learning through the act of teaching, and the selection of teaching strategies that are most appropriate for the context.
Table 1.1 Self-auditing of your learning

At several points throughout the program you may find it useful to complete the following matrix to assist you in the process of self-auditing your growth and development. This could happen at least once each semester. Make sure you clearly label each matrix with the date and the semester so that your growth can be audited over time. As each semester unfolds, begin your conversations by reflecting back on the previous semester and conclude by setting some goals for the following semester. You should also use your curriculum artefacts as evidence of your assessments and self-auditing. Each time you report on your growth and development, add your presentation to your evolving portfolio.

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<th>PROFESSIONAL STANDARDS</th>
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<th>Beginning to comprehend</th>
<th>Consolidating and exploring options</th>
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The origins of pedagogy (Bernstein, 1996) are important for you to consider in the process of becoming a pedagogical expert – after all, that is what a teacher actually is. Teachers have the responsibility to make ‘rational and defensible professional judgements’ (Hirst, 1979, p. 16) at three levels: in preparation for teaching, in the act of teaching, and when reflecting on teaching. The European definition of pedagogy is ‘instructive’. The best interpretation of the term is that of Alexander (2004) who captures the complexity of pedagogy holistically as ‘the act of teaching and the body of knowledge, argument and evidence in which (teaching) is embedded and by which classroom practices are justified’ (Alexander, 2004, p. 10). Some educators have condensed his definition to ‘subject knowledge and subject application’. More importantly, Shulman (1987) determines pedagogy as the coming together of ‘content and pedagogical content’ (p. 8).

In simple terms, pedagogy is not only the what and the how of teaching, but more comprehensively the why. The rationale for the uniqueness of the content and the strategies used in a particular context encompasses not only the students in the classroom but all of the historical, cultural, and political complexities implicit in their presence. Welcome to the complex world of pedagogy and of becoming a teacher in the secondary context. It is so much more than content knowledge! The big question we must always ask is:

Why am I teaching this particular content to this particular group in this particular way at this particular moment?

It is not because someone has instructed you to do so; rather, it is because you are drawing on your own knowledge as a pedagogical expert, to engage your students in ways that you know will best facilitate their learning.

**APPLIED LEARNING ACTIVITY 1.3**

Think of a learning experience that was memorable for you as a student. Then consider this question: Why did the teacher choose a particular body of knowledge for me (or my particular group), and deliver it in a particular way/or ways at that particular moment? Discuss this with a colleague or friend and compare your responses.

We have been thinking about pedagogical experiences that you engaged in as a student. While it may not have been clear at the time, the teacher was obviously engaging in pedagogical complexities that were made overt in ways that you can recall. There was a purpose and rationale designed to engage students (you) in learning. However, there were also many complexities underpinning the overt action of teaching and you were not privy to them at the time. The question for you now as a teacher-in-preparation is: So what do I need to know/do to acquire this expertise?
How do I develop my pedagogical expertise?

A key aspect of your teacher preparation program is the focus on developing a repertoire of professional pedagogical practices that can engage all students in improved learning opportunities and outcomes. These will be across a range of contexts, academic abilities, cultural groups, and physical, socioemotional, attitudinal developmental stages.

Studies of effective teachers have concluded that they adopt a variety of pedagogical or teaching strategies. Key pedagogies or teaching practices include (among others):

- **Direct Instruction** (Pressley, et al., 1998) – This is essentially a teacher-directed, skills-oriented approach to teaching, involving explicit or specifically guided teaching of particular skills or content. Direct teaching focuses mainly on knowledge recall as a basis for deeper problem solving or higher thinking activities.

- **Individualised Instruction** (Zahorik, et al., 2003) – This teaching practice broadly involves ‘planning and conducting programs of studies and lessons that suit them to the individual student’s learning needs, learning readiness, and learner characteristic or “learning style”’. Central to this strategy being effective is the use of formative feedback and the redesign of construction, based on outcomes.

- **Enquiry-based Learning and Instruction** – This form of teaching uses a variety of discovery- or exploration-based teaching techniques. Students explore material and/or problem solve issues to develop their knowledge, skills and experience. It requires scaffolding and strategic design at the planning level even though it may appear open and flexible to the outside observer.

- **Hands-on Learning** (Wenglinsky, 2000) – In this teaching practice, students investigate and manipulate the objects they are studying, which could include the use of instruments or equipment. Active learning of this type is based on substantive conversation between peers, as well as teachers inviting students to engage in deep discussion about the subject under study, in order to encourage deeper levels of thinking rather than surface learning.

While the studies of these practices have examined the efficacy of each specific approach to instructional delivery, researchers have found that effective teachers are adept at using a myriad of instructional strategies. What is important for pre-service teachers in a teaching preparation program is the significance of developing a repertoire of professional practices. These will include the ones just listed, and many more! Chapter 7 is specifically designed to explore the complexities of pedagogy and the planning of learning experiences. A planning toolkit is also provided for your use.

However, knowing about a range of teaching strategies is not what pedagogical expertise in secondary teaching is all about. These may be the tricks of the trade but they are not enough to equip you to educate your students.
In order to develop a repertoire of professional pedagogical practices, you need to know which learning theory underpins which strategy. Your repertoire will be both generic and context/content-specific. You will vary your teaching and learning activities to suit different educational settings and a diverse range of learners. While current bodies of research provide sound arguments for particular pedagogies in particular contexts, in order to become a pedagogical expert you need to:

(i) collect extensive empirical evidence supporting a full range of teaching strategies for critique, development and reflection;
(ii) be able to model and critique such strategies in domain-specific or discipline-based contexts (e.g. history or mathematics); and
(iii) through the use of a self-auditing framework of development, engage with research, practice and reflection to ensure the comprehensive development of a bank of teaching strategies that are aligned to the Standards and contemporary, evidence-based professional practices in educational settings.

In becoming a pedagogical expert you must be able to demonstrate, through evidence, an alignment with:

(i) **Ideological thinking**: Each of you – as a teacher-in-preparation – will position yourself in an individual way. This positioning is influenced by educational theory, philosophy and curriculum orientations specific to your field. It forms the rationale for your teaching and the development of your own unique approach to teaching in your discipline (or teaching area). This is the why and it is informed by complex theory. You do need to think deeply about what your ideology is (or what it could be) because it forms the platform of your expertise in pedagogy. When parents ask you why you teach in the way you do, you need to have an expert answer.

(ii) **Pedagogical practices**: Based on such an ideology/or ideologies, you should commit to a repertoire of professional pedagogical practices that is congruent with your philosophy and your discipline constructs; e.g. constructivism in science education for adolescents. While many lay people think that teaching is about a generic set of teaching strategies, more contemporary research indicates that teachers argue for a specific suite of pedagogies that are responsive to their discipline, the context in which they are teaching and the purposes underpinning their work as teachers. It is important that you learn about pedagogy but also that you align your pedagogy with your ideology and your specific teaching or content area. This pedagogical alignment between your rationale for teaching and the strategies you adopt in your discipline area will improve your status as a pedagogical expert.

(iii) **Differentiated approaches to student engagement**: It is evident from the literature that effective teaching enhances student learning outcomes when it responds to the specific needs of students (intellectually, socially and culturally); is focused on the alignment of proposed outcomes and learning engagement; and provides specific feedback to students in terms of their progress. This is the key to good pedagogy. It requires teachers to differentiate or modify their modes of pedagogy and assessment, as well ensure...
engagement and enhanced outcomes, resulting in students learning and succeeding. This is the rationale for developing a vast array of pedagogical practices and having the educational capital to diversify your teaching in response to students.

There is no single way to teach all students by adopting a ‘one size fits all’ approach. Rather, a differentiated approach to pedagogical engagement and assessment ensures active and successful learning for all students. This is what makes teaching so complex and why it is important to always be shifting backwards and forwards between three key considerations: content, pedagogy and students’ needs. In fact, the best starting point is the following set of questions:

- What do my students (each one of them) know? What do they need to know?
- How do they best access knowledge through learning? What ways do they best engage in learning?
- What pedagogical expertise can I bring to the challenges of this group to engage them in learning and take them from the known to the unknown?
- Why would I do so? What theoretical justification underpins my work as a teacher?

The alignment of ideology, effective and responsive pedagogical practices, including assessment, and a differentiated approach to learning engagement ensures a coherent, meaningful and effective approach to student engagement in learning and, consequently, successful learning outcomes for all. If you achieve this you can be recognised as pedagogical expert.

How do I become a pedagogical expert?

It is well recognised that effective teacher preparation involves a combination of content knowledge and teaching practice. However, determining the appropriate measure and level of interaction between content knowledge and teaching practice for developing teachers is currently under-researched. Shulman (1987) was one of the first scholars to articulate the importance of graduates learning to bring together content knowledge and pedagogy, as they become a teacher. Referred to as pedagogical content knowledge (PCK), this phenomenon was inclusive of what was traditionally known as the presentation of subject-based content to students through different teaching strategies. A full critique of the research that has unfolded around PCK is evident in the work of Park and Chen (2012) who remind us of just how difficult it is to measure, investigate and understand the complexities of the meta-cognitive processes in which teachers-in-preparation engage. This is because the interplay of expert knowledge and pedagogy unfold both at the level