

## What can clinical teachers learn from *Harry Potter and the Philosopher's Stone*?

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Many clinical teachers acquire a working knowledge of the principles of teaching and learning through observation, by adopting positive and rejecting negative examples of clinical instruction. Well selected vignettes of teaching behaviours taken from contemporary film and literature may provide rich substrate by which to engage clinical teachers in discourse about instructional technique. This paper draws on J K Rowling's novel and its companion film, *Harry Potter and the Philosopher's Stone*, and critically analyses the teaching styles of the staff at Hogwarts School of Wizardry and Witchcraft in the context of contemporary generic and medical education literature. Specifically, it argues that effective teachers demonstrate not only an in-depth

knowledge of their discipline but possess a keen appreciation of the cognitive changes that occur in their students during the learning process. They are, furthermore, proficient in core instructional skills such as small group facilitation, feedback and questioning. Most importantly, effective teachers model appropriate attitudes in their professional setting and possess highly developed personal qualities such as creativity, flexibility and enthusiasm.

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Around the world, children are delighting in the magical world of young Harry Potter and his friends at Hogwarts School of Witchcraft and Wizardry. In the Harry Potter stories, author J K Rowling inventively explores themes such as the struggle of good against evil and the importance of friendship and belonging.<sup>1–4</sup> She has been credited with creating a fantasy-led revival of reading in a generation of children,<sup>5</sup> but her quirky, multilayered plots likewise appeal to adults by delivering powerful insights into the everyday world around us.

The text *Harry Potter and the Philosopher's Stone*,<sup>1</sup> with its companion film, serves as a rich source of

material with which to engage clinical teachers in discourse about the principles of instructional method. It is, after all, the story of an educational institution and the teaching and learning activities that take place within it. Led by the highly respected Professor Albus Dumbledore, the teachers at Hogwarts assume the onerous responsibility of supervising the transition of each young student from novice to competent and independent practitioner of witchcraft or wizardry. Each plays a key role in providing instruction in the intricacies of his or her craft, just as clinicians do in the world of medical education.<sup>6</sup>

In contrast with clinical teachers, however, the staff of Hogwarts have (no doubt) undertaken postgraduate studies in educational method during which they would have learned about the principles of classroom teaching and had the opportunity to apply these during supervised placements at accredited schools of witchcraft and wizardry. The majority of medical practitioners commence their careers having had little formal contact with teaching except as recipients.<sup>7,8</sup> Few have had the opportunity to receive structured

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### Key learning points

Critical observation can be a powerful method of acquiring teaching skills.

Teaching behaviours identified in contemporary film and literature can be used to engage clinical teachers in discourse about instructional technique.

Effective clinical teachers have an in-depth *knowledge* of their discipline and understand how students organise this knowledge into conceptual frameworks.

Effective clinical teachers are proficient in core instructional *skills* such as small group facilitation, feedback and questioning.

Effective clinical teachers display appropriate *attitudes* towards students, patients and other health professionals.

training in, or receive feedback about, instructional technique.<sup>7–9</sup>

Despite this, most clinical teachers cultivate satisfactory individual styles by trial and error and by reflecting on personal experience.<sup>10,11</sup> Wilkerson and Irby have argued that many acquire at least a working knowledge of the principles of teaching and learning through observation, by adopting positive and rejecting negative examples of clinical instruction.<sup>12</sup> So what can clinicians learn by studying the teaching styles, both effective and ineffective, of the teachers in *Harry Potter and the Philosopher's Stone*?

It is helpful to approach this analysis from a theoretical perspective, drawing upon research in instructional method from both generic and medical education.<sup>12–19</sup> This allows the identification of core principles of teaching and learning that can be translated into a set of observable teaching behaviours.

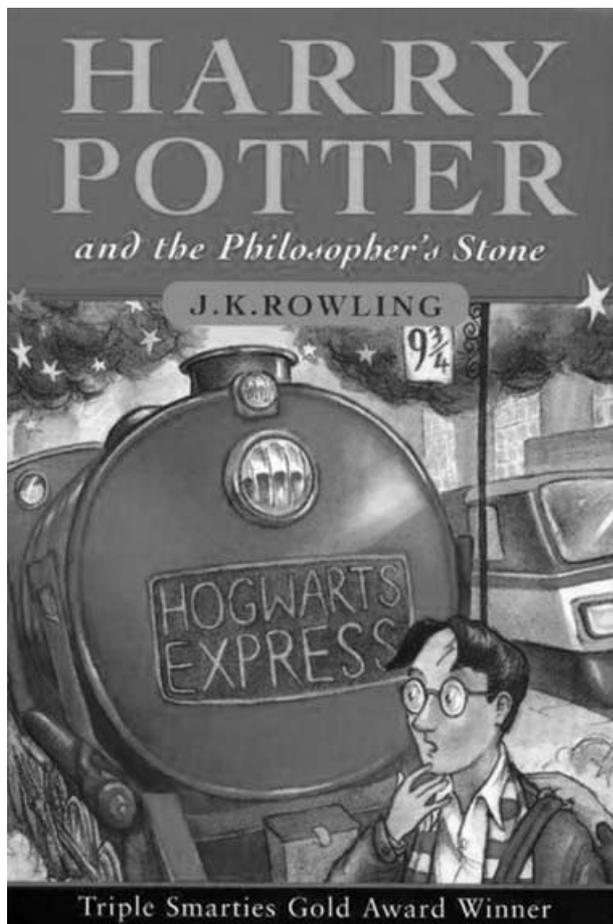
Effective teachers demonstrate an in-depth knowledge of their discipline.<sup>14</sup> Professor Dumbledore, as we discover, has a documented track record in wizardry. He is famed for such achievements as the identification of the 12 uses of dragon's blood and his collaborative work on the development of alchemy,<sup>1</sup> all published (presumably) in international, peer-reviewed journals. Professor Snape, by way of further example, impresses us with his firm command of the

science and art of potion-making in the classroom setting. A literature search, however, for the latest evidence on a key topic, say, the benefits of combination therapy with dried nettle and crushed snake fangs for the treatment of boils, might allow us to make a more confident assessment of his knowledge base.

Good teachers in medicine, too, are competent in their area of expertise and are up to date, relevant and analytical.<sup>10,14</sup> Irby has cogently argued that experienced clinical teachers have a richer and more tightly connected knowledge of their subject matter than do novice teachers, allowing them to integrate or link information with knowledge from other disciplines and to place a clinical situation in its appropriate context.<sup>14</sup> Content expertise, however, is not the only type of knowledge required of the competent teacher.<sup>10,12,14</sup> The conventional view that the necessary and sufficient prerequisite for becoming a good clinical teacher is a sound knowledge of one's discipline ignores the large body of literature that now exists on theories of adult learning.<sup>12,14,16–19</sup>

Expert teachers have an understanding of the cognitive changes that take place in their learners during the instructional process.<sup>18,19</sup> They know how information is recognised and assimilated into carefully constructed conceptual frameworks. They can break down the most complex of ideas into component parts and can structure and order this content so information is presented to learners in an intelligible manner.<sup>14,18,19</sup> This involves having a keen appreciation of pre-existing knowledge and the context in which learning takes place. Skilled teachers, according to Woolfolk, also develop elaborate systems of knowledge for understanding specific problems in learning<sup>18</sup> with insights gleaned from repeated delivery of subject material.

The formidable Professor Minerva McGonagall, for example, delivers instruction in Transfiguration, the skill of metamorphosing one object into another, and perhaps the most complicated and hazardous magic art taught at Hogwarts.<sup>1</sup> She displays a masterly understanding of her subject, beginning her lesson by demonstrating the complex transformation of her desk into a pig – something to aspire to maybe, but her students are given the more developmentally appropriate task of converting a match into a needle. However, Harry Potter's friend, the intelligent and widely read Hermione Granger, proves to be the only student to master even this most basic of tasks during the first lesson.



**Figure 1** The cover artwork for the UK edition of *Harry Potter and the Philosopher's Stone* by J K Rowling, published by Bloomsbury. Artwork by Thomas Taylor.

Hermione soon discovers that not all skills are about bookwork when she prepares for Madam Hooch's lesson in broomstick flying. Fortunately for Hermione, she has a teacher who is not only skilled in her craft but also understands that complex psychomotor skills need to be broken down into basic components presented in a structured and sequential fashion.<sup>20</sup> Like the expert clinical teacher supervising the acquisition of physical examination or procedural skills, Madam Hooch recognises the importance of demonstration, supervised practice and anticipation of common errors, such as sliding off the end of the broomstick while mounting.

Senior student Oliver Wood demonstrates a fledgling talent for teaching practical skills when introducing new Seeker, Harry Potter, to the game of Quidditch. Wood, Captain and Keeper of the Gryf-

findor team, is not only careful to present his material in a thoughtful and well ordered manner but monitors the pace of his delivery by constantly checking with his learner. As he explains the roles of the Quidditch team members and the intricacies of the scoring system, he questions Harry to verify that he understands. This interactive approach is vital in encouraging active learning and fostering an exchange of ideas between teacher and student.<sup>10,14</sup> Harry communicates to Wood his emergent perception of the game by comparing it to basketball as he tries to fit his new found knowledge into a pre-existing conceptual framework.

Not merely a tool for pacing instructional activity or promoting the acquisition of knowledge, skilful questioning is a powerful way of checking that learning has occurred.<sup>21</sup> The effective teacher uses questions in a non-threatening manner to assess and activate the learner's pre-existing knowledge, to identify voids and misconceptions and to encourage active participation.<sup>14,21</sup> To do this, he or she constructs open-ended rather than closed questions to encourage interpretive and analytical thought rather than mere recall.<sup>21</sup> It is apparent from analysis of *Harry Potter and the Philosopher's Stone* that even trained and experienced classroom teachers struggle with this skill.

Should Professor Snape submit to peer evaluation of his teaching methods as part of an appraisal for promotion or ongoing professional development, he may find himself being prompted to reflect carefully on his questioning style. In the first Potions class, he targets Harry Potter, demanding to know the result of combining wormwood with powdered root of asphodel. When no answer is forthcoming, Snape persists with this line of questioning. This only serves to humiliate our protagonist.

Rather than using a series of closed questions, Snape might start with a more open-ended question, such as: 'Who can explain why the Draught of Living Death is so powerful as a sleeping potion?'. Directed to the whole class rather than to just one student, this would send the message that everybody is expected to contribute to the discussion. A dominant student such as Hermione Granger should not be discouraged but rather used to fuel the group dynamic: 'Hermione says that a bezoar is a stone taken from the stomach of a goat. Does anyone disagree with her statement?'. Incidentally, Snape might also reflect on whether he has made his instructions for pre-reading sufficiently explicit to maximise learner involvement.

Another potent instructional technique for promoting student learning is the provision of constructive feedback to learners.<sup>10,14,22</sup> This is probably the skill that most keenly distinguishes expert from novice teachers. In a recent survey of medical teaching conducted by Wall et al., trainees and clinicians alike rated the ability to provide feedback as the most important skill of all.<sup>7</sup> Research in generic classroom education, furthermore, provides evidence that learning is most likely to take place when students receive constant feedback from their teachers.<sup>14,22,23</sup>

Feedback is the process by which the learner is provided with accurate, concrete and specific information about his or her performance.<sup>14,22,23</sup> To be effective, it needs to be descriptive rather than judgemental, to offer constructive advice for improvement and to be closely related in time to the behaviour in question.<sup>23</sup> Students, in addition, need the opportunity to respond to feedback and are more likely to internalise it if they see it as part of an ongoing formative process.<sup>23</sup>

It is difficult to find a really good example of effective feedback in *Harry Potter and the Philosopher's Stone*. Snape, of course, can be relied upon to show us how not to do it. When the hapless Neville Longbottom melts a fellow student's cauldron in the Potions class, Snape snarls at him, pointing out the folly of adding porcupine quills before removing the cauldron from the fire. Although providing specific information that might be useful for guiding future performance, the unsupportive delivery of this feedback is unlikely to create the necessary psychological climate for change.

Conversely, it is important not to confuse feedback with praise, as students and teachers often do. Oliver Wood, for example, when observing Harry's flying skills on his Nimbus Two Thousand, compliments him on his natural talent. While this may be encouraging for young Potter, it provides him with little insight into exactly what he did well. This deprives him of an opportunity to learn how to monitor his own performance and to progress to the stage of effective self-evaluation.

Clearly, proficiency in basic instructional skills, such as questioning and feedback, and a working knowledge of one's discipline are important aspects of being a good teacher. But personal qualities and attitudes can also have an immense impact on student learning. Teachers who approach instruction with flexibility, creativity and enthusiasm and have a humanistic orientation are highly valued by learners.<sup>10,14,24,25</sup> Studies in generic classroom teaching have shown

that these qualities correlate highly with overall teacher effectiveness,<sup>26</sup> a finding that has been replicated by research in medical education.<sup>27</sup>

Successful teachers, not surprisingly, are highly adaptable. While most clinical teachers do not have to cope with unscheduled explosions, wayward broomsticks or invading trolls, they are challenged by complex, diverse and rapidly changing learning environments. And, unlike classroom teachers, they are expected to provide instruction at the same time as they fulfil other service roles, such as patient care, administration or clinical research.<sup>10</sup>

Successful teachers, whether in the classroom or the clinical setting, are also imaginative.<sup>14</sup> The diminutive Professor Flitwick nicely illustrates this point when he injects a sense of theatre into his Charms lesson by making Neville Longbottom's toad zoom around the classroom, both delighting and motivating his students. Contrast him with the boring Professor Binns, who teaches History of Magic; not exactly the Simon Schama of the wizard world.

The medical education literature suggests that students respect teachers who are self-confident and who model positive attitudes not only towards the learners themselves, but towards patients and other health care professionals.<sup>10,14,25</sup> In the world of wizardry education, the wise Professor Dumbledore succeeds as a role model. He recognises the individual strengths of his students, respects non-academic staff such as Hagrid, Keeper of Keys and Grounds, and is compassionate towards all people regardless of background, even Muggles. And ultimately, he strives to instil in his students the importance of using their skills of wizardry and witchcraft wisely.

Quality clinical teaching has much in common with successful classroom teaching. It constitutes a set of definable instructional behaviours, informed by principles of teaching and learning, which can be shown to promote student learning. These skills are not innate. There is evidence that teacher training programmes provide an effective mechanism for developing instructional expertise and increasing awareness of the learning process.<sup>28-30</sup> Teaching staff, furthermore, are receptive to training programmes if these are well designed, meet their learning needs and fit in with the demands of service delivery.<sup>30-32</sup>

Using well selected examples of instructional technique for critical analysis is an excellent mechanism for introducing clinicians to the theoretical

basis of educational practice. But just as J K Rowling has enchanted her audience with her lively and imaginative writing, so too must those responsible for teacher training provide resource material that is engaging and stimulating for learners. Most importantly, though, observation should represent only the first step of a staff development model that provides ample opportunity for supervised practice of teaching skills linked with timely and specific feedback.<sup>23,31</sup>

### Addendum

Clinical teachers wishing to advance their instructional skills using a 'Harry Potter' centred approach may care to consult other books in the series. *Harry Potter and the Chamber of Secrets*, for example, describes the use of role play by the ephemeral Professor Gilderoy Lockhart in the subject Defence against the Dark Arts.<sup>2</sup> And for those concerned about the validity and reliability of their performance-based assessments, some of the pitfalls are highlighted in an account of Professor Trelawney's examination technique in *Harry Potter and the Prisoner of Azkaban*.<sup>3</sup>

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