'Wonder-full Education' is a collection of essays which evolved from the work of the Imaginative Education Research Group, based at Simon Fraser University in Vancouver, Canada, and chaired by Dr Kieran Egan. The idea behind the book is to explore the pedagogical nature of wonder, and this has certainly been done well, from nursery classes to education beyond high school. Many of the writers shared the same concern that there is not enough 'wonder' in schools. The reason seems to be that the time for wonder, and to contemplate wondrous things, is constantly being squeezed by curriculum demands led by narrow testing. However, all these writers believe that even working within current curriculum constraints teachers can introduce and use wonder in their classes. As Egan himself says, “It is a matter of developing appropriate techniques, and I think we should make such techniques prominent in the training of teachers” (p. 161).

Let us begin with a definition of wonder. Many of the writers go to pains to explain there is a difference between wonder, curiosity and awe. Trotman, quoting Pearce and Maclure (2009) says wonder is a “…liminal experience - a sort of shimmering apprehension on the threshold between knowing and unknowing, in which
aesthetic, cognitive, and spiritual experiences are simultaneously mobilized" (p. 28). Hadzigeorgiou, in his essay on wonder in science classes describes wonder as “…a state of mind or feeling.” (p. 45) As Haralambous and Nielsen put it, “The experience of wonder takes centre stage as the meeting place between wishes and surprises...the sense of wonder involves an inner response to an outer phenomenon - and both can be explored.” (p. 232) To affect a person’s senses, inner being or soul if you will, requires more than just normal practice, but the best advice appears to be taking one’s time, and paying attention to the students. One of Piersol’s concerns is in fact teachers ignoring or dismissing moments of wonder: “The most worrying part about the lack of wonder in the classroom is that we don’t just ignore its potential, we often actively discourage it.” (p. 17)

The idea of paying attention to students’ questions, and leading their questioning, is covered in depth by Miyazki in a fascinating article which looks deeply at Kihaku Saitou’s concept of ‘the Unknown Question’. He writes (p. 110), “...in a non-school situation, questioners ask questions because they do not know the answers. In a school, a questioner, the teacher, asks questions to which she/he typically already knows the answer.” Unknown questions are “…those whose answers are not known by the teacher, even though the teacher may have posed the questions. They may also be questions raised by others, whose significance the teacher does not understand.” The Unknown Question demands that the teacher release some control, and head into the unknown, and this is an uncomfortable place for many teachers. Adding further to this idea, Miyazki writes, “The "erroneous" answers of children help the teacher make possible new horizons of a question, but only when she/he stops seeing erroneous answers as merely errors.” (p. 118) This style of pedagogy touches on another idea which a number of the contributors to this collection raise: that teachers should not assume they know every answer, and that it is the exploration of ideas, which might result in answers, which is the best way to deal with moments of wonder as they arise in class. Griffiths (p. 124) writes, “Knowing how to intervene without breaking the spell is a key issue”. Annabella Cant challenges us to “Imagine the curriculum and the teacher being able to constantly astonish children and make them ‘demand’ explanations! Imagine learning as an ongoing
desire for more knowledge fueled by educators' talent to create this desire for knowledge in their students!” (p. 166).

I really enjoyed Cant’s explanation of how she developed the word ‘fasnium’ for Romanian teachers. Apparently, there is no suitable translation of wonder into Romanian, so “(these are the) words/concepts that I have used to build it: F from Fascinatie - fascination; A from admiratie - admiration; S from surpriza - surprise; N from neobisnuit - unusual; I from incantare - delight; U from uimire - astonishment; M from mirare - gape” (pp. 164-165). The ‘enemy’ of a wonder-full education appears to be a curriculum driven by economic understandings at the expense of the aesthetic and wondrous. Schools are driven by government intervention, National Curricula, statutory testing programmes, inspectorates, interventions, school league tables, ‘parental choice’, "world class standard" and PISA worries (Trotman, p. 31). Bianchi writes (p. 191) “Although the National Curriculum for Science has provided many useful benefits... its application and assessment regimes have done little to encourage a sense of personal exploration and wonder.” Griffiths argues (p. 122) “We are too quick to shrink the multi-faceted, wide-eyed view of children into adult disciplines or forge childhood to fit economic agendas.” Haralambous and Nielsen channel Charles Dickens, who began ‘Hard Times’ with "Now, what I want is, Facts. Teach those boys and girls nothing but Facts. Facts alone are wanted in life..." As all teachers know, facts are, of course, important. But Piersol (p. 12) by quoting Evernden (1985) adds, “By resolutely answering our students with "facts", we "transform the experience from wonder to quizzical bemusement or indifference". If teachers do not allow children to experience wonder, or provide opportunities for wonder to arise, we risk boring and disengaging students, as a number of the contributors point out. Cant (p. 172) writes of young children asking one hundred or more questions a day, but it stops: “By middle school they've pretty much stopped asking. It's no coincidence that this same time is when student motivation and engagement plummet.” The answer to this, argues Piersol (p. 19) may lie within the teacher: “To break down the complete aversion to school we need to engage students in more meaningful and intrinsically motivated learning. This means that as teachers we need to uncover our own sense of wonder and awe and embody this within our practice.”
A number of wonder-full moments and experiences are described by the various contributors, which had me reflecting on times when I, too, have seen children experiencing wonder: a walk on a beach with a five year old; that moment when a struggling 12 year old reader told me excitedly that she could ‘see the story’ as she read. The essays in this collection raise a number of associated questions, such as: Is school-based education a creative pursuit? Should it be? For whom – students? Teachers? Is the point of an education to create and develop understanding or to learn information? Can both be done effectively? How do teachers reconcile what they know will make for good education with the constraints placed on them externally? Wonder-Full Education is a wonderful addition to any educationalist’s professional library.

About the Reviewer

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Damien Morgan (Dip Prim Teach, B.Ed, M.Ed) is the Deputy Principal Junior School at Our Lady of the Southern Cross College, in Dalby, Queensland, Australia. OLSCC is a P-12 Catholic School with its roots in the Mercy and Edmund Rice traditions. Damien has been a teacher and administrator in Catholic primary schools in the Ballarat and Toowoomba Dioceses for more than 35 years. His professional interests lie in the "Catholicity" of schools, the use of information technologies in the classroom, and making schooling a better experience for all concerned. Away from school he is a husband and father (of three) and enjoys a wide range of music, has more to read than he has time to do it in, watches too much television, and is an obsessed fan of Australian football.
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