

REFERENCES

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Eleanor Duckworth.

**THE HAVING OF WONDERFUL IDEAS AND
OTHER ESSAYS ON TEACHING AND LEARNING.**

New York, NY: Teachers College Press; 1987.

168 pp. \$13.95.

One of the goals of this slim volume is to show that children's intellectual development is based on the "having of wonderful ideas." Most important, Dr. Duckworth lucidly demonstrates how certain teaching approaches can provide the opportunities for these ideas to develop and mature. A second goal is to present Jean Piaget's overarching ideas on children's intellectual development in a way that is meaningful for the school curriculum.

These goals stem from Dr. Duckworth's personal experiences: her early work with Piaget, whose influence spanned the years of her own development and career as a scholar; her work with two science programs (Elementary Science Study and the African Primary Science Program); her primary school teaching experience, and more recently, as a researcher and educator at Massachusetts Institute of Technology and Harvard Graduate School of Education, respectively. These are impressive credentials, but the most important quality of this work is the clear, succinct presentation of theories of teaching and learning. These are supported with sufficient examples from the real world of children and teachers.

"The having of wonderful ideas" is a series of ten essays, some of which have been published previously. Nevertheless, Dr. Duckworth weaves the essays together to reinforce the theme. It is introduced and summarized in the opening essay by the comment that one (meaning educators) should be "willing to accept children's ideas" – something teachers are not always ready to do – and provide a real setting for these ideas to percolate.

The second and third essays present Piaget's thoughts and findings on the development of language in young children. Dr. Duckworth

demonstrates how these ideas can be applied in the classroom. Essays four, five, and six consider the relationship between children's experiences and their knowledge of the world. To focus on this theme, the essays provide an analysis of the discussions carried out by teachers after viewing children interacting with scientific problems. The discussions help teachers recognize that deep knowledge takes time to develop and, in fact, there are virtues in "not knowing" which "are the ones that really count in the long run" (p. 68).

The seventh essay presents extracts of children's comments as they interact with Piagetian material on spatial relationships. Again, it is interesting to read the teachers' own reflections on the exercises as they try to make sense out of the children's actions. The eighth essay considers the world view of both infants and adults. This is illustrated by an overview of Piaget's observations of his own children and how he developed the idea of "structure." The second part of the essay describes a series of mathematical activities with teachers and their discussions on how understanding is organized (by adults or children) during encounters with material.

The ninth essay examines the nuclear threat and how the feelings and beliefs of children can be discussed. The final essay is titled "Teaching as Research" and is an appropriate closure to the series of essays.

Unlike other presentations of theories of teaching and learning, this book simplifies complex ideas and focuses on the way in which educators can recognize the children's point of view as they "construct their own knowledge." It is a useful and relevant addition to a reading list for pre-service and in-service teachers.

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