

If one respects the ways of thought of the growing child, if one is courteous enough to translate material into his logical forms and challenging enough to tempt him to advance, then it is possible to introduce him at an early age to the ideas and styles that in later life make an educated man.

Jerome Bruner, from  
The Process of Education p.52.

When Kieran Egan first proposed the idea to our class one rainy Friday night I remember laughing out loud at the absurdity of it. Even now the idea strikes me as hilarious albeit wonderful and hilarious. He called his proposed idea, “Learning in Depth”. Learning in depth was born out of Egan’s alarm at the fact that many students graduate from high school without knowing much about anything, let alone much about anything in depth. In his learning in depth proposal Egan suggests what first appears to be a rather strange remedy to this situation.

In the learning in depth proposal students would be assigned a topic when they began school. They would have no choice in the topic assigned to them and for the twelve years or so that they attended school they would keep the same topic. By the time they graduated from school each student would be an expert in their topic, or at the very least they would know something about something in some depth. The idea of Billy randomly becoming an expert on glass, while Jane develops a deep knowledge about sheep made me chuckle. But the more I thought about the idea of learning in depth and its educational implications, the more interested I became in investigating it. Why would we

want to implement something that this? How would in depth knowledge effect one's relationship to knowledge as a whole? How would such an idea be put into practice? In this paper I will try to answer these questions. I will also attempt to map out a framework in which learning in depth could be put into practice.

Egan argues that we think of an educated person as someone who has both a depth and a breadth of knowledge. While students who graduate from our current school system may have a certain breadth of knowledge, how many graduate with a depth of knowledge? Teachers and students struggle to meet the long list of objectives of the current curriculum but in their many years of schooling do students really learn anything in depth? If we agree that the goal of our school system is to educate people and that an educated person is someone with both a depth and a breadth of knowledge, then we must insure that our students have not only some breadth of knowledge but also some depth of knowledge by the time they graduate.

But why is depth of knowledge so important? Egan suggests that to have knowledge of something in depth allows us to know something about the nature of knowledge itself. Knowing about the nature of knowledge leads us, somewhat paradoxically, to realize just how little we actually know. Egan also argues that depth of knowledge is important for the development of the imagination. He states in "Learning in Depth: Knowledge and the Imagination", that the "imagination can work only with what we know" (4). The imagination can not work with what is *outside* of its knowledge, such as unread books, but can only work with what it knows, what is *inside* of its knowledge, such as a memorized poem or story. Egan mentions that "it is only at depth that knowledge interacts with our being, with our sense of self" (Learning in depth, 10). I would add to this and suggest that in depth knowledge gives an individual a perspective

of their place in the universe and allows them a glimpse of the sublime greatness and interconnectedness of all things. Depth of knowledge is important because it overshadows utilitarian learning with learning for the sake of learning. Depth of knowledge encourages the acquisition of knowledge for the wonder of the knowledge itself rather than its practical implications.

When I was in Grade 8 we were expected to complete a Grade 8 Project. This was a project of our own choosing that we worked on independently over a fairly lengthy period of time. The project was supposed to include a written component as well as some sort of physical representation. I'm not sure what was going through my thirteen year old head when I chose my topic, but for some reason I decided to do my project on tea. During the months of my research I began to realize just how exciting and complicated tea was. Amongst other things, I learned about the Japanese Tea ceremony, about the different regions of the world where tea is grown and harvested, about the difference between green and black teas, about the East India Company and the Dutch Trading Company and the speedy multi-masted Tea Clippers, and even the Boston Tea Party. Most importantly, my whole concept of tea changed. What I had thought of previously as merely a comforting drink became the porthole for a wealth of historical, scientific, economic, artistic, even spiritual knowledge. My project made me realize that upon closer inspection something as seemingly simple as tea was in fact vastly complicated and fascinating. Moreover, I recognized that if so much could be learned about tea, the knowledge about the rest of the world must be stupendous in its vastness.

My tea project is a meager example of the power of depth of knowledge but it demonstrates that the in depth knowledge of one subject can be the means to knowledge about many other subjects. It also brings to light the humbling effect that knowing a little

about the nature of knowledge can have. As Egan explains

One of the things one learns in the process of learning in depth is how claims to knowing can be built and attacked and defended --- it's all part of the slow process of finding the insecurity of our claims to know. (Learning in depth: knowledge and the imagination, p. 1)

The irony of the situation is that without knowing anything in depth one doesn't know what one is missing. If you know nothing in depth than you will never know the fact that you indeed know nothing. You will never come to know, as Socrates is claimed to have, that all you know is that you know nothing. If a relatively small project gave me a glimmer of the complexity of in depth knowledge, imagine what twelve years of in depth study could do!

If we are really going investigate learning in depth we will have to put aside our reservations about the absurdity of the idea and try to imagine how the in depth learning that Egan proposes would look in practice. Egan suggests that each child would be given a carefully chosen topic when they enter school. Over the years that they are in school the child would build a portfolio on his or her topic. This special topic would not displace any part of the regular curriculum; rather students would study their topic in addition to the existing curriculum. Egan suggests that around once a month students would meet with their teacher to work on and discuss their portfolio. At the end of the year each child would give a short presentation on what they had learned about their topic. As students became independent learners and more accustomed to working on their portfolios they could steer the direction of their learning according to their own interests. So if Eli's topic was potatoes, for example, and he grew tired of social history he could turn to science and learn about the chemical makeup of potatoes or perhaps the ideal ph balance of soil

for optimal potato growth. By the end of their time in school students will have become experts on their topic, or if not experts they will certainly have more than average knowledge of their topic.

The idea of studying the same topic year after year brings to mind Jerome Bruner's spiral curriculum. In The Process of Education Bruner writes, a "curriculum as it develops should revisit the basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them" (13). If a learning in depth program were to be implemented it seems that it would in many ways follow the same principles as a spiral curriculum. In such a situation it is important to make sure students aren't learning the same thing about the same thing over and over again. If students were, for the most part, to guide their own learning the problem in the above situation could be avoided. What should be achieved through spiral learning is that students will gain enough in depth knowledge of a topic to at least begin to glimpse "the full formal apparatus" of which Bruner writes.

While it is relatively easy to picture how the learning in depth proposal can be put into practice with older independent students, how would such a scheme work with younger students? Egan recommends that children be given their topics for in depth learning at the young age of five or six. Will a five year old have any interest at all about a topic such as salt? Moreover, how will she begin her portfolio if she does not yet know how to read and write? Again Bruner springs to mind when he writes that, "any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (33). If we believe this hypothesis then how do we go about trying to teach young children in this "intellectually honest form" of which he speaks? An obvious answer to this question is to use the framework of Imaginative Education theory to guide

us.

Imaginative education uses five different teaching frameworks that correspond to five different kinds of understandings. These five understandings have been named, somatic, mythic, romantic, philosophic, and ironic. Somatic understanding is pre-linguistic, mythic understanding is related to the development of oral language, romantic understanding is related to written language, philosophic understanding relates to the theoretical use of language, and ironic understanding deals with the reflexive use of language. All of these understandings refer to the stages of our development and the way in which we understand the world. Each of these understandings has a set of tools which aid in their development. In Imaginative Education these are called ‘cognitive tools’. Teachers can use these tools in a guiding framework in their lesson planning to both engage their students and make sure that the students sequentially develop each kind of understanding.

If we are to begin our learning in depth project with children who are between the ages of five and six, then for the most part these children will be at a stage of mythic understanding. In other words, these children are at a stage of understanding “before literacy begins to significantly influence their thinking” (The Educated Mind, xvii). The cognitive tools that help to develop this kind of understanding are story; metaphor; abstract binary opposites; rhyme, meter, and pattern; jokes and humour; mental imagery; gossip; sense of mystery; games, drama and play; and the embryonic tools of literacy. These are the tools that we will use to introduce the students to their in depth topic and the tools that will guide them through their first few years of study of this topic.

To help us sort out just how the learning in depth proposal could work in practice, we will use three fictional case studies: Billy has been assigned the topic of

glass, Jane has been assigned the topic sheep, and Anneke has been assigned the topic of salt.

### **Emotional Meaning**

The first step in tackling these topics is to figure out what about them is emotionally meaningful to the student. Why should the topic matter to the child? And how can the topic evoke wonder?

At this stage the teacher would meet with the student and have a chat about the topic. Together they would discuss what is meaningful about the topic to the student and why. The first entry in the child's portfolio could be something as simple as a picture of why the topic is meaningful to him. After some thought Billy may decide that glass is important to him because it keeps the rain and cold out of his house yet still allows him to see outside. Jane is interested to know if sheep even have tails and if so why they would leave their tails behind them. She is also interested in the fact that her sweater came from a sheep. Anneke wonders why a little bit of salt tastes good on your food and a lot of salt doesn't. She also wonders why salt makes you thirsty. Already these children have identified some aspect of why their topic is important to them. They already have some emotional attachment to their topics.

### **Finding Binary Opposites**

While this might be a little difficult to do at first, with the help of a teacher the student should try to identify some binary opposite that can illustrate the importance of their topic. If Billy decides that the importance of glass is that it is solid yet transparent. His binary opposites could be opaque/ transparent or perhaps a slightly more abstract single- purpose/ multi-purpose, strong/ delicate. If Jane is interested in the fact that sheep give us wool, unprocessed/ processed could be the binary opposite that she would use.

Anneke might choose to use salty/sweet, flavourful/ flavourless, or soluble/ insoluble as her binary opposite.

### **Thinking about the Content in Story Form**

This could prove to be one of the more difficult stages of project planning because, unlike lesson planning, project planning is something that is done individually with each child. The important thing to remember is that we are trying to illuminate the powerful images and drama held within each child's topic. We also want to make sure that the emotional meaning and wonder of the topic still remains for the child.

If we look at Billy and his topic, glass, and take into consideration that the importance of the topic that Billy has identified is that glass is both solid and transparent and the binary opposite that best captures the importance of this topic is single purpose/ multipurpose, what sort of story can we come up with that both teaches Billy about the properties of glass and engages his imagination? I would suggest that we let Billy come up with the story. He may need some prompting with questions such as: Imagine what a house would be like with no glass windows? Imagine what a car would be like with no glass? How would our daily lives be different with no glass?

Similarly, Jane might be prompted to make up a story with wool as the main character. She could plot wool's journey and all of its adventures as it travels from the back of a sheep to the back of a little girl in the form of a sweater. Anneke might want to create a story about a family whose salt shaker is mysteriously filled with sugar instead of salt.

The possibilities for stories are endless. Children are wonderful story makers and with some teacher prompting and supervision students should be able to create meaningful stories about their topics on their own.



### **What About the Other Cognitive Tools?**

I have outlined above how a learning in depth project might begin. I have used a basic mythic planning framework to show how one could structure such a project. While helping her students, a teacher should also be aware of the other cognitive tools of mythic understanding and try to integrate them into her lessons and meetings with her students. For example, there is lots of possibility for integrating rhythm or rhyme into the study of a topic. This could even be done as a full class activity. The class could brainstorm all of the songs and poems they know about sheep, for example, memorize one or two of them and then in time, move on to brainstorm and memorize poems about another child's topic. Similarly, jokes and metaphors can be examined with the full class or small groups. Children could be asked to make up jokes or riddles about their topics and then share them with the rest of the class. For example: What do you use every day and not notice until it goes away? Salt. The learning in depth project offers teachers lots of opportunity to put into practice the cognitive tools of mythic understanding both with individual children and with a whole class.

### **Conclusion**

Any a lesson or unit will usually end with a conclusion. The conclusion acts a bit like the end of a story. What happened in the end? How was the conflict between the binary opposites resolved? As Owen Tyer describes it in his guide to imaginative education, "The conclusion can . . . take on many forms from students' presentations, to displays . . . to the dramatic presentation of the story with visuals, and so on" (7). In our case, depending on the time given to the framework, the conclusion could take the form of a brief student presentation or a year end display of the students' portfolios. Over the course of the school year Jane may have made a series of illustrations of the processes

that wool goes through to become a wool sweater. Perhaps she found some wool directly from a sheep's back. As her culminating year end activity she could show her class the raw wool and a wool sweater and display the pictures from her portfolio. Anneke might have made lists and charts of what is salty compared to what it sweet. She might demonstrate the power of salt by letting her classmates do a taste test between bread with salted butter and bread with unsalted butter. Billy might share his thoughts on why glass was invented and for what purpose, he might show his drawings of what the inside of the school would be like with no windows. These conclusions will not indicate the end of a child's learning about their topic, rather these conclusions will be more like the end of a chapter in a book.

In writing this paper I intended to investigate the rather bizarre idea of learning in depth proposed by Kieran Egan. My investigation has led me to the conclusion that there is indeed great value in learning something in depth. In accordance with the axiom of knowledge itself, the more I read and typed the more I realized how little I knew about the topic. My little paper merely brushes the surface of this interesting idea. But I have tried, at least, to create a basic outline of how the beginnings of a learning in depth project might look. There are, of course, hundreds of ways to elaborate on, modify, and improve such an outline.

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