My hands clenched uncharacteristically under the particleboard table that showed signs of being an eating and meeting place in the teacher’s lounge of the small school. Salt shakers and a haphazard heap of napkins split the distance between me and my would-be boss. Having never felt the pangs of nervousness that only professional formality can inspire, my first job interview also served as an initial realization of the momentum that carried me out of the teacher preparation cannon into the “real” world. I figured I knew the answers – piece of cake.

“What do you think it means to learn?”

The question just flopped onto the table, the question mark wobbling a bit as I examined it. It seemed a natural question to ask a teacher, though images of camouflaged pits and snares crept into my imagination. Why was this so difficult? Without fluency in the discourse of education, I began stumbling through the underbrush.

After teaching for several years, asking this question to colleagues and students along the way, I can’t help but wonder how such a seductively simple construct – learning – can be so elusive. Like asking someone to explain what “air” is, learning is such a central part of human experience that it lies beyond taken-for-granted. Wouldn’t having a deep awareness of what it means to learn be a beneficial thing for any kind of student?

Ingrid Pramling, a Swedish researcher, has studied what learning to learn looks like in great detail. Her work on children’s conceptions of learning stretches back to the early 1980s, yet it tends toward the pedagogical ramifications of such findings. In her 1990 work, Learning to Learn, Pramling conducts a phenomenological experiment based upon preschool children's self-understanding of their own learning, and in it she brings three main considerations to the fore. She makes clear the need to consider children's differing levels of metacognitive awareness, the ways in which children's conceptions of learning can be developed by using their own understanding of learning, and her main assertion is that children learn qualitatively different and better (namely, faster) if they are more aware of their own learning.

Yet, even with Pramling’s claims to entice the community, surprisingly little research has been published on the metacognition of k-12 students directly related to their thoughts on what it means to learn. The few pioneers in this field have mostly focused on how students think in relation to their own learning achievements, as measured by direct, intervention-oriented testing techniques. Alison King (1989) used the “ASK to THINK—TEL WHY®©” model with multiple pairs of students where tutoring was taking place. This model provided students with the cognitive tasks of questioning, problem solving, and explaining, in addition to monitoring learning; her study looked at how these cognitions are distributed across tutoring pairs and found that using this model promoted student creation of new knowledge. Unfortunately, the “tutees” were present and interactive and the model for gauging students’ metacognition was completely provided – casting serious doubt on whether it was students’ notions of learning that were measured or simply the degree of the model’s implementation. The participants’ awareness of some major contexts between ‘teacher’ and ‘learner’ (cultural and linguistic similarity, for example) is an aspect of King’s work that raises the question of how children from different cultural backgrounds conceive of learning.
Jin Li, a researcher at Brown University, has framed her career around studying how children in different cultures develop different ideas about knowledge and learning, and how their understanding of learning influences their actual learning behaviors. These interests have lead her to study children’s conceptions of knowledge, the relationship between children’s thoughts of what their lives are about and the process of learning, and socialization for developing these beliefs. The focus of her work is on how the conceptions of children affect their own learning behavior, not their conceptions of learning in general. In some of her latest work (2002), she suggests that technologically-based design activities empower children from a wide range of backgrounds to become more confident and competent learners themselves. This notion of learning through design activities, though perhaps a narrow aspect of the overall picture, is an area that has received increasing attention.

The collection of studies in Yasmin Kafai and Mitchel Resnick’s (1996a) compilation, Constructionism in Practice, follows along the same lines as Li’s work – showing that technology can transform conceptions of learning, education, and knowledge. The experiments described within the research demonstrate how technology-based design activities can empower children from diverse backgrounds to become more confident and competent learners of mathematics and science. Employing Seymour Papert’s idea of constructionism (1993) as a comprehensive theoretical framework, the book contains articles about learning through design and learning in communities, presently hot topics in education. One study in particular, that of Kafai herself (“Learning design by making games”), is especially helpful in understanding the constructionist framework. She explains that without wanting to deny the value of instructional (didactic) games, constructionists have focused their efforts on providing students with greater opportunities to construct their own games—and to construct new relationships with knowledge in the process (Kafai, 1995). Though such educational games with constructionist approaches have received much less attention than their “instructionist” counterparts, Kafai claims that they hold far more potential for engaging students’ enthusiasm, ostensibly another excellent reason for examining how they conceptualize learning.

Even so, existing research on learning metacognition needs to be read with caution. Tan and Law (2002) use results from a brief survey to show how students’ conceptions of what is “useful in learning” tends toward what is most like their own typical classroom experiences. Nearly half of the children surveyed about the usefulness of particular activities in promoting creativity and learning favored the activities that were most like those typically present in their own daily classroom experiences, and, consequently, most like those within the relevant national standards. Hence, any such look at the ways in which students conceptualize learning needs to consider the likely influences of outside models in their thinking. That being said, it is unfortunate that their work is constrained by examining responses to a predetermined set of probes that, though perhaps statistically satisfying, hardly can be considered rich.

The value of examining students’ thoughts about learning is understood by these researchers, yet the research itself is somewhat uninspiring. Though certainly a step in the right direction, these studies are missing the actual voices of the people they hope to understand. They do not consider what students say about the act of learning on their own terms; therefore, they do not consider how students might differently communicate what it means to learn in general, as well as for themselves. Observing students’ conceptions of learning in a more situational and contextually inclusive way is bound to be more difficult, replete with pitfalls along the way; yet it also promises a more complete, nuanced view of something so central to humanity as learning. The intimate nature of an interview provides just such an environment.
It is with this motivation that I turn to the documentary, Spellbound. Interestingly, through use of interviews and documentary footage the movie allows us a chance to examine what students really think about what it means to learn. As the result of the particular medium, an added bonus is the freedom to do so in a recursive manner that allows for careful examination of both visual and audio data. We are afforded a glimpse of how apparently disparate students in non-classroom settings think about learning a set ‘curriculum’ (effectively the dictionary) for the purpose of succeeding in an individual, elective and highly competitive situation. Essentially, how do the spellers conceptualize learning? What do they say and do that can help us understand their thinking on the matter?

In order to begin answering these questions, it is necessary to consider the ways in which the “data” will be interpreted: the lens with which I will focus my attention. We need to hear them (what do they say about learning?), see them (what does their explicit behavior say about learning?), and analyze their strategies for preparing to compete (how do they approach learning?). Since the movie is essentially an already crafted document, I have limited access to the hours of footage the filmmakers gathered for each child. Due to this pre-selected nature of the data, it is imperative that I consider the entire movie as the unit of my analysis, rather than rely on incomplete (and likely biased) information for each child individually. If I tried to draw conclusions on the basis of any one of the children, I would be further truncating the data that are, in fact, already themselves truncated by virtue of editing. Therefore, I will consider the movie’s main subjects, the spellers, as a single entity upon which to direct a larger commentary regarding metacognition of learning.

Much like ethnographers in their own right, the spellers carefully listen to the words they are given, pronouncing them repeatedly to themselves, focusing their attention on each important syllable. In addition, asking for further clarification through definition, example and language of origin (though often a rote response to the pressure) is a technique used by many to unlock vital clues along the way. Ashley’s use of letter tiles in practice and her tactile competition response of writing the words out on her palm indicates an awareness of learning style and memory-recall that is quite sophisticated, though it may be a strategy suggested by a coach or simple mimicry of those she has observed. Angela likes to imagine her friends “cheering [her] on” by having them sign her flashcards, while she writes down words on posterboard in the form of puzzles. The similarity between Ashley and Angela in their dependence on spatial and tactile learning stimuli is intriguing, though Angela explicitly states the puzzle strategy is something she developed independently.

Both Nupur and Neil make use of computers to guide their studies, while nearly all the spellers are seen handwriting lists of words at some point. Nupur works diligently at the computer, maintaining a list of not only words, but parenthetical meanings next to the more obscure selections. Combining the technology with manual techniques suggests a desire for time-efficiency as well as rote memorization. Neil, constantly quizzed and drilled by others – in fact, never seen studying on his own – seems to rely on coaches to direct his study and the use of the computer in his case seems mainly to be for convenience.

Each of the spellers seems motivated to ‘learn’ the words for different reasons. Emily wants recognition for her abilities. “I don’t love spelling. I do it because I want to compete.” Yet there is conflict in that she is “worried about sounding too smart.” Clearly seeing the words as more than simple enunciation – she makes reference to a “Moroccan desert wind” and how it might be used in her daily life. For her, the meanings are central to the task – those words she
finds useful are of more importance. Still, her mother references their discussion of “working towards the goal of getting to the finals” and it is indicative of a challenge-oriented task with no necessary meaning beyond the competition. We see Emily singing, participating in a math course, and practicing polo from horseback – examples of her everyday (and perhaps normal for suburban Connecticut) life. However, she clearly states that “normal kids” do not participate in bees, when explaining how relieved she would be to go out in an early round. This is underscored by the weary dedication Emily displays while buried in a notebook, painfully reciting each word as she writes them down – the very books she can’t wait to “throw away” by the end of the film.

April’s scabby legs rocking back and forth are the first we see of her, and dreaming of failure, she admits to a characteristic pessimism on more than one occasion. She only claims that both parents love to “play” with words, and that she works “a little too hard” on spelling. Given her middle-class upbringing by parents who freely admit to not understanding April’s devotion as well as her workhorse attitude to the grind of studying, there is little evidence that the bee is more than a testimony to her different-ness. There is no feeling of expectation on the part of her parents, who can’t seem to understand why a girl wouldn’t want to “go to the mall with her friends.” April has a strong sense of individuality in her likes (coffee and a vegetarian diet) that hints at a conception of learning which is completely of her own creation, unlike most of the other students who draw upon their family, friends and school structures to validate and co-create their raison d’etre.

Neil’s father has a terribly complicated regimen for success, and his mother sees this as a “crisis,” claiming “when you fight in a war, everybody has the same goal.” This affects his conceptions of learning – not to mention his health, seeing spots after one competition. It is assumed by his mother that the tools her son possesses for fighting this war (like his habit of meditation) are something that would make “competitions more difficult” if they were more common across competitors. In a sense, Neil is force-fed a conception of learning that is equivalent to the stockpiling of munitions before a battle. His father, sold on the idea of manifest success in America, pays for special tutoring to expose Neil to foreign language etymologies. Neil suggests that winning will “feel great,” disregarding the stakes (steaks?) for several thousand Indians.

Nupur practices the violin diligently in between her studies, yet her parents, never seen helping her study, seem to have focused mainly on instilling a deep sense of motivation. “You don’t get any second chances in India, like you do in America,” she states. The fact that she is allowed to compete again, after her previous bee-attempt, seems critical. Her conviction in the greenness of America’s grass in comparison to that of India suggests that this conviction, likely influenced by the stories of her parents’ experiences, is one that she holds central to her being. Unlike Angela, who wonders why her father has not learned English and “guesses” that her parents have succeeded in achieving what they came for (“educational opportunities for their children”), Nupur sees herself as the natural successor to her parents’ life story.

The similar immigrant story underscoring these two girls’ backgrounds (and that of Neil’s) belies the differences in their support structures. Nupur and Neil have strong parental support for their national bee appearances, but remarkably different parental influences on their conceptions of learning. In contrast, Angela’s father struggles with the decision to travel to Washington, DC, eventually doing so as an act of “closure” since Angela’s success is the ultimate fruition of his immigration. Though not an immigrant, Ashley faces some of the same “outsider” difficulties as a black female coming from a lower-class, urban environment.
Claiming that “spelling is something I love to do,” she does not have expectations of winning, and suggests the chance to do what she loves is worth the struggle. Yet, when she is driven to tears and near nausea by the word ‘lycanthrope,’ it appears that there is more at stake.

Physical reaction to the pressure of the competition is ubiquitous in the spellers actions and typically emerges in the form of “nerves.” Angela nervously tugs at her pants while her voice crackles, or she holds her hands in a ball behind her back, swaying slightly. She jumps up and screams in excitement after her regional victory, and her smile lights up the school hallway in the following scene. She admits to crying out of happiness, but also to being “just like all the other spellers” in being nervous. Nupur downplays the competitive nature of the regional bee, yet identifies it as “nerve-wracking.” Ted admits to being nervous, but suggests it is due to his lack of traveling experience. His parents tell us that he “plays to win,” and do not seem to direct his learning, as they discuss his older brother’s “interests” to be things that might “land him in jail.” Taken along with his affect-less nature, one could surmise that Ted spends most of his time thinking and doing what he pleases in a phlegmatic, highly individual manner. Learning, it seems, is something he just naturally does without much consideration or planning – asking no questions before charging right into the spelling of his words – yet, there is a kind of artlessness to his approach that is perhaps only rivaled by Harry.

Ever the performer, Harry seems motivated by communication and display – self-aware of his own strangeness and comfortable in sharing it. “Does this sound like a musical robot?” he asks the interviewer, clearly aware of his own lightness of being. His dictionary has bookmarks that his mother inserted to facilitate locating definitions, though he does not appear interested in this strategy. “That was one of those words that just stuck in my head. I don’t know why.” In sharing this metaphorical analysis, Harry permits the inference that he is a passive receptor of knowledge with little awareness of how the act of learning takes place; nor does he show curiosity toward understanding his own metacognition. He clearly experiments with learning, no matter how unaware of the process, by practicing his guitar and reading the music for “The Star Spangled Banner.” Yet, as we see his performance at the bee, another view of Harry emerges. His attempts at stretching the boundaries of the round that eventually ends his bid, as well as his interest in the procedural aspects of the event during the pre-bee meeting, suggests a mind that is interested in winning through guile. “Am I allowed to ask what a homonym means,” Harry inquires as he is shown monopolizing the microphone during the rule clarification session. Harry, unlike the other spellers, does not seem preoccupied with the learning of words nor the act of spelling; instead, he sees what other spellers consider an unforgiving binary state (right or wrong) as fertile grounds for a kind of conversation, a sophisticated “shades of grey” attitude towards the display of knowledge.

In the end, we must recognize that these kids are, in fact, kids. They are in the throes of adolescence, the formation of cognitive strategies and identities, experimenting with different ways of being, expressing and behaving. A researcher who approaches such subjects with the belief that they are fully capable of explicating their deepest thought processes without any intentional and directed prompting would draw conclusions that are specious, at best. Instead, the data these children provide are as snapshots of erratically moving targets. Through their words and actions, we are able to make certain interpretive leaps, though we must not forget that these words and actions are both mediated by the camera’s eye and indicative of a “self” that is likely only there for a limited time.
In addition, given the high stakes of this competition and the amount of precious adolescent time many of the spellers invest (several months, though we see only a fraction), what can be said of their thoughts on learning? Indeed, with the kind of pressure the spellers are under – as April’s father describes it in comparison to baseball – one must wonder whether the “learning” I sought the conceptions of ever really enters into the equation. In essence, the analysis leads me to consider my own conceptions of learning. Perhaps this is a more sophisticated version of learning than I had originally conceived, not just how to spell but also how to deal with stress and concentration, part of a larger construct more evident in the data I have analyzed. After all, regardless of the words they learn, the larger lessons these youngsters are faced with are intimate and real; anyone who has ever faced a high stakes examination can attest to that.

My own conception of learning must therefore be in a state of constant evolution, constant change. It involves the “life lessons” that the spellers had to learn to cope with in whatever ways they are taught or discover about themselves – from Harry’s attempts to ‘hack’ the system and Nupur’s complicity in the myth of intellectual representation, to Ted’s stoic, dispassionate detachment. In a way, the question I began by asking is really only a shadow. I started off thinking about learning in a narrow sense, but find myself needing to stretch, to grow. Could it be that the very act of questioning what it means for others to learn is, in itself, a recursive process of learning for the questioner?

“Rrrrrrrrr-ingg!”

It was a bell that stopped my answer that late-spring afternoon. I must have spoken, undoubtedly waxing poetic, for several minutes by the time the grinding metal clapper startled me to silence. The principal apologized for the interruption but explained that the school day had ended and that he was required elsewhere. Dazed, and a bit disappointed by my obvious failure to inspire his rapt attention, I thanked him for his time. The bell was in command – it determined whether my answer was sufficient. The only disappointment for me, in retrospect, was the absence of a “comfort room” in which I could recover from the ringing in my ears before making my way to the next interview. Hopefully, I wouldn’t have to field another question like that again.

And again…
List of Works Cited and Consulted


Kafai, Y. B. (1996b) Learning Design by Making Games: Children's Development of Design Strategies in the Creation of a Complex Computational Artifact


