
3-1-2004

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Recommended APA Citation

Zambo, D. (2004). Using Qualitative Methods to Understand the Educational Experiences of Students with Dyslexia. *The Qualitative Report*, 9(1), 80-93. <https://doi.org/10.46743/2160-3715/2004.1938>

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Abstract

The paper argues that the systematic review of qualitative research is best served by reliance upon qualitative methods themselves. A case is made for strengthening the narrative literature review and using narrative itself as a method of review. A technique is proposed that builds upon recent developments in qualitative systematic review by the use of a narrative inductive method of analysis. The essence of qualitative work is described. The natural ability for issues of ethnicity and diversity to be investigated through a qualitative approach is elaborated. Recent developments in systematic review are delineated, including the Delphi and Signal and Noise techniques, inclusion of grey literature, scoping studies and meta-ethnography. A narrative inductive interpretive method to review qualitative research is proposed, using reflective teams to analyze documents. Narrative is suggested as a knowledge-generating method and its underlying hermeneutic approach is defended as providing validity and theoretical structure. Finally, qualities that distinguish qualitative research from more quantitative investigations are delineated. Starting points for reflecting on qualitative studies and their usefulness are listed.

Keywords

Qualitative Systematic Review, Evidence-Based Policy, Grey Literature, Scoping Studies, Delphi, Signal and Noise, Meta-ethnography, Narrative Review, Narrative Method, and Reflective Teams

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Using Qualitative Methods to Understand the Educational Experiences of Students with Dyslexia

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As readers, children with dyslexia are vulnerable to becoming academically, socially, and emotionally detached from education. Traditional educational practices tend to use quantitative measures to diagnose children to better serve their needs and researchers, who study students with special needs often focus on a deficit model that quantify just how far a child is from the norm. This practice, while full of good intentions, often creates emotional scars and feelings of inferiority in a child. This reductionist view of a disability is most likely different from the lived experience of the person with the disability. To get a complete picture, we must use qualitative methods to reveal children's words, their interactions, and the entire context within which their disability is nested. In this study, I use qualitative methods to unpack the educational experiences of a group of students with dyslexia. Data were gathered from four sources: interviews with students and teachers, field notes, and journal entries. The words of the participants are presented to convey the emotional impact that a reading disability brings and to remind educators and researchers that quantitative methods do not always provide a complete picture of a child's experience in school. Key words: Dyslexia, Reading Disabilities, Qualitative Methods, and Emotions

As readers, children with dyslexia are vulnerable to becoming academically, socially, and emotionally detached from education. Reading difficulties isolate, impoverish, and leave children with fewer career and life options (Richards, 1999; Shaywitz, 2003; Stanovich, 1986). Children, who taste academic failure, are evaluated ruthlessly using quantitative measures such as intelligence tests and academic achievement scores to diagnose their weaknesses (Levine, 2002). Likewise, researchers, who study students with special needs, often focus on a deficit model that highlight their weaknesses and quantifies just how far they are from the norm. This practice, while well meaning, often creates emotional scars, lifelong feelings of inferiority, and distrust in children (West, 1997). A quantitative, reductionist view of a disability is most likely different from the lived experience of the person with the disability. If educators and researchers merely look at scores and numbers, we may miss what reading and a reading disability are all about for these children. To get a complete picture, we must listen to the children's words, observe their interactions, and examine the entire context within which the disability is nested. To find meaning, researchers must put away the test booklets and delve deeper using qualitative research methods to explain instead of measure, to seek meaning instead of quantifying, and to understand instead of generalizing. To understand

dyslexia, we must not only think of the numbers and deficits, but we must recognize and explain the human and emotional side as well.

As a foundation for this discussion, I begin with an explanation of the confusion surrounding dyslexia and what neuroscience is telling us about the brains of individuals with dyslexia. I then go on to explain my study in detail, its participants, and the importance of using qualitative methods to get a more in-depth perspective of dyslexia. Evidence for my claims is provided in the words of the students and their teachers.

Dyslexia

Dyslexia is a reading disorder that persists despite good education and normal or above average intelligence (Gorman, 2003). It is a handicap that affects up to 1 in 5 children of school age and is the most common form of learning disability, accounting for 80 percent of all learning-disabled children in special education today (Flynn & Rahbar, 1994; Roush, 1995). Yet, the exact nature and definition of dyslexia has baffled educators, parents, and dyslexics themselves. Dyslexia is a learning disability with much controversy and many questions surrounding its definition, identification procedures, and educational implications. Individuals with dyslexia were once said to be “word blind” by Hinshelwood (1917), who studied dyslexia as a disorder with a genetic link. Since then, dyslexia has been studied as a neurological problem (Orton, 1937), a visual processing difficulty (Stein, Talcott, & Walsh, 2000), and a linguistic coding deficit (Shaywitz, 2003). Some researchers approach dyslexia as a visual impairment in the form of a magnocellular-deficit and believe that the eyes of individuals with dyslexia hold visual images of letters longer than usual so subsequent images become superimposed on one another (Stein, Talcott, & Walsh, 2000). Other researchers like Galaburda (1993) conduct autopsies on the brains of people with dyslexia and find them to contain ectopias (insertions of cells from one layer to another) and dysplasias (disorganization of cells).

More recently, advances in technology like magnetic resonance imaging (MRI) and functional magnetic resonance imaging (fMRI) are allowing us to examine human brain anatomy and functioning in vivo and researchers are coming closer to explaining the neuroanatomy and neurocircuitry of dyslexia (National Academy of the Sciences, 1998; Zadina, 2002). For example, Rumsey, Horwitz, Donohue, Nace, Maisong, and Andreason (1999) used imaging techniques to show that blood flow to the angular gyrus (the area of the brain responsible for transforming print into language) is significantly reduced in individuals with dyslexia. Likewise, Sally Shaywitz (2003) and her colleagues have discovered specific neural systems involved in reading and a differential pattern of activation in areas that support phonological processing in the brains of dyslexics. Scientific advances are revealing that the brains of dyslexics contain differences at the cellular, the connectional, and the gross anatomical level (Sherman & Cowen, 2003). Differences in structure and wiring mean that a child with dyslexia, who came to believe that his brain worked “differently”, would probably be right.

But, with this information comes the challenge of understanding the experience of dyslexia. One way to achieve this is to talk to children about their lives and their disability. The purpose of this study was to capture the complex emotions and experiences a reading disability brings to the world of children labeled as dyslexic. Children are active constructors of their own world yet outside forces (e.g., teachers,

psychologists) often label and categorize them using standardized measures. Only by talking, listening, and watching will we catch a glimpse of what dyslexia means to individuals.

Method

The Greek philosopher Diogenes was said to have walked around the city in full daylight with a lit lantern looking for a real human being. When asked what he was doing Diogenes answered, “Even with a lamp in broad daylight I cannot find a real human being.” This anecdote conveys my intent to show that the lamp of quantitative data does not allow us to understand the experience of dyslexia. To achieve this goal, I use qualitative methods to unpack the true meaning of dyslexia. I offer a systematic explanation of my methods and thick descriptions of the students, teachers, and the context of their lives to show how this methodology offers more understanding than numbers or test scores.

Setting

This study took place at a private school in the Southwestern United States that specializes in working with children, who have special needs the private school was chosen for several reasons. I had worked at the school as a high school English teacher six years prior to the study. I knew the principal and two teachers but none of the other teachers or children who participated in this study. I was familiar with the layout of the school, the curriculums used (e.g., Alphabetic Phonics, The Mind That’s Mine, multisensory methods), and how it was run (e.g., admission policies, staff development, discipline policies).

I also chose the school because it represents a best-case scenario for students with special needs. Class sizes are small, the principal disseminates information about learning disabilities to students and staff, and the teachers talk to the students about their disability.

The major reason the school was chosen was because I know that most of the students enrolled in it have had difficult and often painful experiences in other settings. Students enroll in the school because they do not fit in with other children and their educational, social, behavioral, or emotional needs cannot be met in a regular school.

My goal was to unpack the educational experiences of this group of students with dyslexia and learn the impact of their experiences. I chose the private school because I was familiar with it, because the staff, who work there are knowledgeable, open, and honest with the students, and because many of the students have had difficult and painful educational experiences.

Teachers

Cole (2003) asserts that teachers have much to tell about a child’s educational experience and Stringer (2004) reports that a teacher’s experience and understanding can provide insight into a student’s world. Six teachers, who have daily contact with the students, were interviewed to formulate joint accounts and provide insight into the

students' perspectives. Five of the teachers were females and one male and their teaching experience ranged from two to twenty-five years. Two teachers were academic therapists, who work intensely with the students on reading skills. The other four teachers were homeroom teachers, who teach regular academic subjects. Each teacher has daily contact with the students and is knowledgeable about their reading abilities, habits, motivation, and past educational experiences. Each teacher was asked to participate because of his or her contact with the students being interviewed. Each one participated voluntarily.

Students

I did not know any of the students prior to this study. Students were recruited to participate through a parent letter that went out to all students in grades five through nine enrolled at the school. Once parent consent was given, each child was also asked for his or her consent to participate and those that did do so voluntarily.

Eleven children, in grades five through nine, participated in this study (gender neutral names are used for the children and pseudonyms are used for the teachers to protect confidentiality). The students all come from middle-class families, are Caucasian, and speak English as their native language. This socioeconomic status and ethnic composition was the general population of the school.

Ten of the students were male and one was female; this is due to the much higher proportion of boys at the school, who have been diagnosed with a reading disability. All of the students have been identified as learning disabled by the school psychologist and each child has an individualized educational plan. Their reading levels ranged from two to four grade levels below their current grade placement.

Two children were in fifth grade. Tyler was a short, wiry child, who loved reading mystery books. Jackson had experienced much difficulty with reading and was new to the school when this study took place. Three students were in seventh grade. Madison, a child who had been placed in several different foster homes, loved reading classical tales. Riley a slow speaking child was into magic and mystical stories. Marty loved reading about animals and was concerned about caring for the earth. Four students were in eighth grade. Mackenzie, a tall thin child who had wandered school halls for years because of his behaviors, was also new to the school. Bailey, a medium-build child, loved mysteries and computers. Cory had been diagnosed with attention difficulties and was an avid athlete, who loved playing soccer. Pat a tall, muscular child loved football and hoped to someday play for a college team. Jordan was the only ninth grader interviewed. He was a stocky boy, who loved riding horses and his moped and playing paintball with his friends.

Data Sources

The students, their teachers, and I conversed over a ten-month period at which time saturation was achieved. Data came from three sources: interviews with the students and teachers, field notes, and journal entries.

Interviews

Most of the data gathered in this study came from interviews with the students. Merriam (1998) described interviews as a conversation with a purpose, a “person-to-person encounter” in which one person elicits information from another (p. 71). Research shows that interviews are appropriate with children because their words can be a revealing source of their understanding (Bartsch & Wellman, 1995). For an interview to yield useful information, an adult or a child must feel comfortable sharing his thoughts honestly and without fear of consequences. If not, interviews can be subject to the same “right answer” syndrome that often plagues written surveys and scales. In this study, I worked diligently to ensure that both students and teachers felt comfortable, could speak openly and honestly, and could feel that confidentiality would be maintained. These goals were achieved by spending ample time in the field getting to know each child and each teacher in formal interview sessions and in less formal situations (e.g., at break, during lunch, walking to class, at assemblies). I also worked hard to be patient, to openly listen, and be honest throughout the entire process. This approach allowed each participant to tell his/her story in a way that was most suited to his/her interactional style. Children, their teachers, and I were co-constructors of meaning. We worked toward shared meaning, not true or right answers.

Teacher Interviews

Teacher interviews were not as extensive as student interviews. They lasted thirty minutes to an hour and were conducted in their classrooms during their break or lunchtime. No children were present during the interviews. Questions were developed to use teacher time effectively, but the teachers were also free to and encouraged to talk about any matter that came to mind. Questions focused on: (a) the teachers’ descriptions of the children as readers and students, (b) what they teach and what students ask about dyslexia, and (c) what they knew of the children’s past and present educational experiences. A complete list of teacher questions can be found at <http://www.west.asu.edu/dzambo>.

Student Interviews

To ensure ecological validity, student interviews were conducted on site at the school in a small conference room. Students were interviewed once or twice a week over the course of ten months. Interview sessions lasted between ten and twenty minutes, the length of each interview being determined by the interest and participation of each child. Each interview was audiotape recorded with the student’s full awareness. Student questions were designed to get at their experiences and feelings about: a) reading and themselves as readers, (b) the emotions they experience when they talk about reading, and (c) their understanding of dyslexia and their brains. A complete list of student questions can be found at <http://www.west.asu.edu/dzambo>.

Field Notes and Journal Entries

Every time I went to the school I took field notes based on observations, including descriptions of each child's appearance, mannerisms, conversational style, interests, and gestures. These notes were intended to be descriptive rather than summative. I also wrote journal entries every time I met with the participants. These entries contained reflections, speculations, problems, ideas, hunches, and impressions on the progress of each session and the study in general. Journal entries were used to discover areas in need of clarification, plan future actions and questions, and to summarize my findings.

Data Analysis

Once data collection was complete, I transcribed the interview tapes and verified their accuracy. No computer analysis was used. My goal was to transform my large data set into a coherent and cohesive story that captured the students' voices, emotions, and experiences. My intent was to reveal their concepts about dyslexia and the outer forces that affect their lives. It was my intent to unpack what they had said both verbally and non-verbally and to resist any bias I might have. My goal was to prove that the data and my analysis were credible, transferable, truthful, dependable, and confirmable.

Validity

It is imperative that we who do qualitative research examine our own conceptions and assumptions, and ask ourselves whether we are capturing the thoughts, feelings, and actions of our participants in the context of their lives. The truths that emerge in our studies are always contingent (i.e., they are true only for the people, time, and setting of our particular study) (Stringer, 2004). This means that our work is local in scope and procedures for ensuring the reliability and validity used in experimental research are inappropriate. Therefore, we as qualitative researchers must embrace alternate criteria (e.g., credibility, transferability, dependability, and confirmability) in order to establish trustworthiness in our research methods and analysis.

Credibility

Credibility is the stability and plausibility of our data. It is our ability to take into account unexpected consequences and deal with patterns that are not easily explained. Credibility is necessary if we are to trust the observations of a researcher (Shank, 2002). To justify credibility in qualitative work, Guba (1981) provides several suggestions that I followed. First, I sought credibility through prolonged engagement at the school. I collected data collection over a ten-month period interviewing each student a minimum of ten times. With this time frame, saturation was achieved (i.e., no new data or patterns were appearing). Likewise, my observations were persistent so that pervasive qualities and atypical characteristics could be identified. My persistence is documented by the number of visits made to the school and the length of each interview session.

Furthermore, to establish relationships of trust, I was visible at the school before school, during breaks, and at assemblies. I did this so that I could talk informally with

each child and teacher and get to know them in settings other than interview sessions. Finally, I never hesitated to ask the children to clarify any misunderstandings or confusions that I had. I also met weekly with peers to debrief my findings. In these meetings, I revealed my insights and struggles with three colleagues, who were mentoring my study. One was the principal of the school, the other was a neutral observer, and the third a university faculty member. These peers listened, prompted, and helped clarify insights, discern questions, and decide what direction to take next. Member checks were a key component to ensuring the credibility of this study.

Transferability

Results of this qualitative study can only be applied to this particular context, the students in this study, and their teachers. Nevertheless, I provide thickly detailed descriptions so that these results might be transferred to other individuals and settings. My goal is to allow the reader to take advantage of what I learned in the course of my inquiry. Transferability in this study is created by my detailed reports, but I ask the reader to determine the applicability of this study to his or her own situation.

Dependability

Trustworthiness depends on the way a researcher ascertains that her procedures are adequate for the purpose of her study. Guba (1981) suggested the above methods that I used to ensure credibility, and he also provided a framework I used to ensure dependability or stability to my data. To ensure dependability, I collected three sources of information so that the weakness in one was compensated by the strength of another. For example, teacher interviews were conducted to help me better understand the experiences of the children and field notes and journal entries were used to help interpret and record actions, emotions, and contexts of what was said. I created an audit trail to allow others to examine my process of data collection, analysis, and interpretation. This was accomplished by carefully documenting all data sources and tracking the data analysis process both during and after data collection and analysis.

Confirmability

Confirmability is achieved with processes that ensure that data collected were neutral and objective. To ensure confirmability, I used triangulation and reflexivity. Triangulation of my four data sources provided varied information that I used to test my theories as they developed. Interviews, field notes, and journal entries all connected and pointed to the same themes, categories, and conclusions.

Having provided a thick description of my data sources and analysis, I next present the themes and words that emerged and connect them to what the literature tells us about students with dyslexia.

Their Story

In this section, I present three themes that arose from the data and supporting quotes from the students and teachers. In this section, it becomes apparent that using qualitative methods to get at the lived experience of individuals with disabilities is important and the only way to understand their lives.

Feeling Different, Being Defiant yet Hurting Inside

As readers, children with dyslexia are vulnerable to becoming academically, socially, and emotionally detached from education. Traditional educational practices use quantitative measures to diagnose children and prescribe cures. This reductionist view merely provides numbers that allow educators to lump kids into special classrooms and split them away from their peers (Levine, 2002). It gives little information about who they are, what they know about themselves, and how they feel about their disability.

Before enrolling in the private school, each child had experienced difficulty in a mainstream school setting. Problems arose because people accused them of being lazy or not trying hard enough. They did not understand dyslexia, and this made them feel different.

One child said,

Some think that (being dyslexic) makes us slackers, who don't want to read but you can't really say that all dyslexics don't want to work hard or don't want to do it (read) because a lot of them do. They just can't. If you are dyslexic it's not fun to do it.

Another also noted,

When I looked at pages of words, I just thought they were like a whole bunch of drawings that people were doing like really neat drawings. Writing to me it was nothing. People could tell me that's 'A' and I'd be like "OK that's 'A'. That must be 'A' too," and it'd be like a 'C' or an 'F' or something. I always thought that they (letters) were weird numbers. Honestly, I thought I was just really stupid and that it was because I was either lazy or didn't want to try. But I knew it had something to do with my brain. I kind of figured it was a disease.

Likewise, another said,

Others are born to read but not me. I'm not a good reader. I'm defective and a really lazy boy. I'm a really lazy boy.

Field note 10/15/2002: When we began talking about his past school experience Mackenzie's entire body language changed. He looked down at the ground, never made eye contact, and clenched his fists as he spoke. His body language indicates that this is a painful subject for him to talk about. He was trying hard to control his emotions.

Cook-Slather (2003) states that educators often view learning differences as deviancies, or the inability to live up to a set of standards like I. Q. scores or average scores on standardized tests. Likewise, Levine (2003) explains that children with learning differences often come to think of themselves as lazy or defective. Additionally, Johnston (1985) notes that adolescents who lack literacy skills are painfully aware of their inadequacies.

Some of the students used defiance to cope with their experiences. But defiance was just a cover up to hide the hurt they were feeling inside. Said one child,

Well, at my past school they used to hand us all the homework on Mondays and you turn it in on Fridays. They handed me a stack about an inch and a half and as we were walking out of class there was a big trash can right there and I'd, in front of everybody including the teachers, just drop it in the trash can and walk out. I did this because I couldn't read and I was in the third grade. I was popular so it was kind of a point that I wanted to get the teachers to realize. That while I'm doing it, inside it kind of like hurt when the teacher would hand it to me. It was like I really want to do it but I can't and then just so it didn't look like I was goin' soft or anything like that I'd walk over to the trash can and throw it in. They called my parents that day and that was the last day I spent at that school.

Likewise, another said,

They (people at his old school) didn't know what any of this dyslexia was and the final breaking point was when one of the kids walked over and decided to say something about it to me. Boy, you must be stupid you're doing this on purpose and well things went badly right there ...because I turned around and punched him. I was very upset. It was in front of a lot of my friends and I took it out on him that day.

A teacher added,

...there are students who feel really discouraged. The older students who come to us late who don't see the progress as fast as our younger children. I think they have been turned off to reading and so now they have built up a barrier and a defense where they say I don't really like to read, I don't really want to read, I hate to read, I don't need to read. When really I think that it's their way of saving face and also it's not an enjoyable activity so they're not choosing it and consequently not getting the practice that they need.

Children with little confidence in their ability try to preserve their sense of self by avoiding tasks that make them uncomfortable (Pintrich & Shunk, 2002). Brozo (1990) insightfully notes that many struggling readers engage in disruptive behaviors such as interrupting class, making negative statements, or acting defiantly toward their teachers. When students are disruptive in class, teachers make little academic contact with them and academic growth suffers (Brophy, 1983). Engaging in disruptive behavior is a very

effective strategy to avoid exposure of one's inability to read, but it hurts academic growth.

The Impact of Learning about the Dyslexic Brain

The students' views are changing because they now are being educated about dyslexia and their brain. The teachers at the private school offer a rational explanation for their difficulties by explaining that what they are experiencing is normal because of the wiring and structural differences of their brains. They try to help the students understand that what they are experiencing is perfectly normal and that others have experienced the same thing. They present positive role models, who have overcome obstacles as inspiration. For example, the school principal spoke to the high school students when Charles Schwab had an article on dyslexia in *Fortune Magazine*. She said, "I talked to the high school students about that article because I think it is helpful to the students' overall feelings about themselves." Research shows that students with dyslexia are more likely to drop out of school, become socially isolated, and attempt suicide (Stanovich, 1986; Richards, 1999; Shaywitz, 2003). Students need positive role models to show them that learning difficulties can be overcome.

This information is helpful to the students' self-esteem, but the teachers go beyond this to instill a sense of self-worth and empowerment. One teacher said, "I think talking about dyslexia makes them better advocates for themselves and I also think it helps them understand their disability better." Another adds, "I think the information that's out now that shows the dyslexic brain is actually a different brain, I think that's incredibly helpful. Because they are able to see they can learn to read but not like everybody else because it's a different brain and I think that's a big help." A third spoke of her experience,

We talk about dyslexia all the time. I just tell him the definition and what it's about and how his brain is different. That means it's wired differently than the non-dyslexic brain...He'll always need some accommodations and some interventions and it's important he understand that. So, we talk about it all the time.

Because the teachers explain, discuss, and answer questions about dyslexia the students are developing a better, more realistic conception of their brain and their disability. For example, one child said,

From what I know of it is that it's not like a disease or anything like that. It is passed down through the generations. It's in the genes. I mean it's all, you're dyslexic or you're not. It's just it's there. There's many different kinds of dyslexia, like you can flip things around, you can have trouble putting things together, sometimes the letters are dancing on the page, you can read things backwards.

Another spoke of brain regions and neural connections,

It's actually like a stream of things that have to be connected. It's brain regions like math and science in the brain but they're supposed to be in like a little loop. In a dyslexic's brains a couple of the pieces kind of skim the raft and they're out like up here or here. What your brain has to do is have a school like this one. It helps you get a rescue line up to them and connect them. If you connect everything it works just the same. It may not be the same but it works.

A third child spoke about obstacles,

Dyslexia is your brain's wired differently, and there's brick walls for some things and you just have to work either around it or break it. I'm dyslexic at reading that means I need a little bit more help. If you have dyslexia, the thing you have to find is how to get over the hump, the wall. Basically, you either go around it and just don't read and get along in life without it or you break down the wall.

Field note 1/20/03: As he spoke about breaking down the walls Jordan was very animated. It seems as though he really was trying to convince me that he could breakdown those barriers and that he was looking for some reaction from to ensure him that he could.

The words of this child sums it up nicely,

I don't really know why, but actually, I think it's kind of like a snowflake. All dyslexic kids read differently or have like a different advantage and disadvantage. So each snowflake would be different but similar but not the same.

Journal entry 11/18/2002: The snowflake analogy is very interesting and one that should be discussed further with Baily. I wonder how he came to think of his mind as a snowflake.

From the students' words, one can hear how helpful talking with their teachers is to their understanding. It is doubtful that they would have spoke of neurons, brain regions, or the uniqueness of their minds if their teachers did not talk to them. The students' willingness to discuss what they know and the depth of their knowledge reveals that this information is having a positive effect, but without doing a qualitative investigation, we would never have known this.

Scars Last Forever

Even though things are better for the students, and they are coming to accept their learning differences many still carry the hurt and humiliation from their previous experiences. Unfortunately, those scars last a long, long time. For example, one teacher said,

He used to, when he was little, chew on his shirt like this (pulls up the collar of her shirt). Anything to hide because he was at (names his previous school) before he came here in third grade. He was in a real high performing school, and he

couldn't read anything, so it was tough on him. He sits up a little better now. He doesn't chew on his shirt but it's still work.

Another teacher added,

When he first went into Mr. X's class Mr. X said, 'I want you to read this to the kids' and Jordan told him, 'no, I don't read. I don't read in front of people,' and that's four or five years later. He does read for X now but his initial reaction for a long, long time will be I don't do that. Those scars last forever.

Unfortunately, the scars caused by undue pressure and expectations can cause children to lose their self-confidence and become detached from their families and school (Brozo, 2002). Fortunately, with good teachers, who care things can begin to change.

Final Words

Researchers, who study students with special needs, often focus on a deficit model that quantifies just how far they are from the norm. Likewise, teachers, who work with students with special needs, are often given quantitative data to understand a child. As a former teacher of students with special needs, I remember getting student's I. Q. scores, achievement test scores, or behavior rating scales before I ever met or spoke with the child. No matter how hard I stared at those numbers, they never told me what that child had experienced or how they felt about school. I hope that in this study I have shown that a quantitative, reductionist view of a disability is different from the lived experience of the person with the disability. If educators and researchers merely look at numbers, we may miss what a reading disability is all about for these children.

As we push children to meet stricter standards and as we continue to classify them by their test scores, it becomes imperative that researchers delve deeper using qualitative research methods to explain, seek meaning, and understand their world. To understand dyslexia, we must not only think of the deficits, but we must recognize and try to understand the human and emotional sides as well. Even though numbers are succinct, they tell little about the hurt that a disability brings because true experience is neither systematic nor succinct (Labuschagne, 2003). It would have been impossible to understand the educational experiences of these children without talking to them and their teachers. Listening to their voices allows us to glimpse their lived experiences in a fuller and deeper way (van Manen, 1990). There is a difference between categorizing, classifying, and abstracting a child as a number verses knowing their story and their world.

Through qualitative studies, we can enrich the debate and mystery surrounding dyslexia and other disabilities. It was my intent to let the children speak and in their voices, we heard how they feel different and become defiant just to preserve their sense of self-worth. We heard that information about their learning disability helps them better understand themselves but that emotional scars are difficult, if not impossible, to erase. Listening is important to understanding, and we as educators and researchers need to examine how we treat individuals with disabilities. Reducing someone to numbers rarely does much to help us treat anyone with dignity and respect (Rorty, 1979). Hopefully, this

study will awaken in others the need for all of us to be like Diogenes and look for an honest man using qualitative methods. Only then will we realize that the lamp of quantitative data does not allow us to see the human being or understand the educational experience of students with dyslexia.

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Author's Citation

Zambo, D. (2004). Using qualitative methods to understand the educational experiences of students with dyslexia. *The Qualitative Report*, 9(1), 80-94. Retrieved [Insert date], from <http://www.nova.edu/ssss/QR/QR9-1/zambo.pdf>
