Self-Directed Education—Unschooling and Democratic Schooling

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Summary

Education, broadly defined, is cultural transmission. It is the process or set of processes by which each new generation of human beings acquires and builds on the skills, knowledge, beliefs, values, and lore of the culture into which they are born. Through all but the most recent speck of human history, education was always the responsibility of those being educated. Children come into the world biologically prepared to educate themselves through observing the culture around them and incorporating what they see into their play. Research in hunter-gatherer cultures shows that children in those cultures became educated through their own self-directed exploration and play. In modern cultures, self-directed education is pursued most fully by children in families that adopt the homeschooling approach commonly called "unschooling" and by children enrolled in democratic schools with no imposed curriculum. Follow-up studies of "graduates" of unschooling and democratic schools reveal that this approach can be highly effective, in today's world, if children are provided with an adequate environment for self-education—an environment in which they can interact freely with others across a broad range of ages, can experience firsthand what is most valued in the culture, and can play and thereby experiment with the primary tools of the culture.

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The author has substantially revised this article to bring the references up to date and reflect terminology that may have shifted since the initial publication.The upate includes a new section of text and revised headings on other sections.

It is useful to begin by defining some terms. First, it is essential to distinguish between education and schooling. *Schooling*, as generally understood and as the term is used here, refers to a set of procedures employed by specialists, called teachers, to induce children to acquire a certain set of skills, knowledge, values, and ideas, referred to as a curriculum, chosen by the teacher or by authorities above the teacher. *Education*, in contrast, refers to a much broader concept. It can be defined as cultural transmission, that is, as the entire set of processes by which each new human being acquires some portion of the skills, knowledge, values, and ideas of the culture in which they develop (Gray, 2011a). With this definition, schooling is a relatively small part of education.

That portion of education that does not result from schooling is largely *self-directed education*, education directed and controlled by the person becoming educated. *Self-directed education*, as used here, refers to education that derives from all of a person's activities aside from those imposed by a school, whether or not those activities are consciously directed toward education.

In line with recommendations by the Alliance for Self-Directed Education (2023), a distinction is drawn here between *self-directed education* with small letters and *Self-Directed Education (SDE)* capitalized. The former term refers to the self-directed education that everyone is involved with, regardless of whether they are also being schooled. The latter term refers to a deliberate decision, made by a family, to not send a child to a curriculum-based school or enforce a curriculum at home, but, instead, allow the child to take charge of all their education. This article is specifically about SDE, capitalized.

It is worth emphasizing that Self-Directed Education does not preclude the possibility of asking for and accepting help or directions or even taking a structured course directed by a teacher, as long as that is clearly the learner's choice and not imposed upon the learner. For this reason, some practitioners and researchers prefer the term *Self-Determined Education*, which more clearly connotes education chosen by the learner. However, *Self-Directed Education* is by far the more commonly used term.

There are two legal means of SDE for children of school age in our culture today. One is through what is commonly called *unschooling.* Unschoolers are officially registered with their local school districts as homeschoolers but are then allowed by their parents to take full charge of their own education. The term *unschooling* was coined in the United States, in the 1970s, by the educational critic John Holt (Farenga & Ricci, 2013) but is now in general use throughout the world by families that pursue this route. The other means is through enrollment in a school designed for SDE, commonly referred to as a *democratic school.* Although these institutions are called "schools" and are legally certified as schools, they do not engage in *schooling*, as the term was defined at the beginning of this section.

This review begins with a discussion of the biological foundation of SDE and then proceeds to sections devoted to unschooling, the free-school movement of the 1960s and 1970s, and democratic schooling today. It ends with a discussion of directions for further research.

Biological Foundations for Self-Directed Education

From a biological perspective, schooling is new but education is not. Schooling has been a common and significant part of childhood experience for only about two centuries, even in the most developed Western cultures (Mulhern, 1959). In contrast, education has been crucial to our species' survival for as long as we have been humans.

Beginning at least two million years ago, our hominin ancestors started down an evolutionary path that made survival increasingly dependent on cultural transmission (Konner, 2002, pp. 29–53). They developed ways of surviving that depended increasingly on an accumulated body of knowledge and skills passed from generation to generation and adapted by each generation to

meet new needs. They also came to depend on increasingly high levels of cooperation and sharing, well beyond that of any other primate, which required the transmission of social mores, rules, rituals, stories, and shared cultural beliefs and values, all serving to bind individuals together and promote cooperation. Throughout this long period, natural selection would operate to endow children with strong instinctive drives to attend to and learn from the cultural activities around them, as those who failed to do so would have a reduced chance of surviving or of attracting mates for reproduction.

Self-Directed Education in Hunter-Gatherer Bands

Through all but the most recent 11,000 years or so of our evolutionary history, we were all hunter-gatherers. We cannot go back in time to examine the behavior of our preagricultural ancestors, but we can examine the behavior of groups who managed to survive as hunter-gatherers, in geographically isolated parts of the world, into modern times. Although hunter-gatherer cultures vary in many ways from one to another, anthropologists who have studied such cultures consistently report that children's education, in all of the groups that have been studied, is essentially entirely self-directed (Lew-Levey et al., 2017).

Children and young adolescents in hunter-gatherer bands are free to play and explore in their own chosen ways essentially all day every day. Little serious work is required of them, largely because hunter-gatherers place high value on free will and believe it is wrong to interfere with another person's autonomy, including that of a child (Boyette, 2016; Draper, 1976; Gosso et al., 2005). The children learn by observing their elders and incorporating what they observe into their play. They play at hunting, tracking, digging up roots, identifying plants and animals, defending against pretend predators, and building huts and other artifacts, as well as at the music, dances, and art of their culture, and by that means they become skilled at these activities. Gradually, as they become adults, their playful activities become productive activities that help to sustain the band (Boyette, 2016).

Here, for example, are the words of one group of researchers concerning children's learning in hunter-gatherer bands: "Foragers value autonomy and egalitarianism, so parents, older children, or other adults are not likely to think and feel that they know what is best or better for the child and are generally unlikely to initiate, direct, or intervene in a child's social learning. This is consistent with our finding that forager social learning is self-motivated and directed, but it also suggests (consistent with observations) that teaching and explicit instruction should be rare or absent" (Hewlett et al., 2011, p. 1173).

These researchers go on to point out that, while hunter-gatherer adults rarely initiate teaching, they willingly help children who desire help, and they allow children to join them in their activities, even when the children are more hindrance than help, because they understand that this is how children learn. Hewlett et al. (2011) write, "Sharing and giving are also forager core values, so what an individual knows is open and available to everyone; if a child wants to learn something, others are obliged to share the knowledge or skill. . . . Since learning is self-motivated and directed, and takes place in intimate and trusting contexts, hunter-gatherer children are generally very confident and self-assured learners" (p. 1173).

Curiosity, Playfulness, and Sociability as Natural Motivators of Education

From a biological perspective, the human drives to explore, play, and interact socially are the primary motivators of education. These drives exist to some degree in all mammals but have been expanded upon and shaped in humans, by natural selection, to serve the function of education, and they are especially strong during childhood and youth (Gray, 2016).

Aristotle (1963) began his famous treatise on metaphysics with the words, "Human beings are naturally curious about things." Despite its obviously powerful role in human experience and education, human curiosity has attracted relatively little research. Most of what has been conducted has been with infants and preschool-aged children. Such research has shown that even newborns gaze longer at unfamiliar objects than at those they have already seen and, by 4 or 5 months, infants eagerly explore manually, as well as visually, any new reachable objects to learn about their properties (e.g., Renner, 1988). By age 4, if not sooner, children experiment on new toys and other objects quite systematically to find out what they can do with them (e.g., Schulz & Bonawitz, 2007; Wang et al., 2021).

Observations of unschooled and democratically schooled children in our society (discussed later), and of children in traditional societies without schools, suggest that curiosity does not diminish as children grow older but continues to motivate ever more sophisticated modes of exploration. In a book on the anthropology of learning in childhood, Lancy et al. (2010) wrote, "The single most important form of learning is observation" (p. 5). Children are especially curious about the activities of other human beings, and they learn by watching them intensely and incorporating what they observe into play.

Playfulness serves self-educative purposes complementary to those of curiosity. While curiosity motivates children to seek new knowledge and understanding, playfulness motivates them to practice new skills and use those skills creatively. The first person to develop this *practice theory of play*, from an evolutionary perspective, was the German philosopher and naturalist Karl Groos. In *The Play of Animals*, Groos (1898) argued that play came about by natural selection as a means to ensure that animals will practice the skills that they must use to survive in their natural environment. This theory is well accepted by researchers today who study animal play (Gray, 2019). It explains why young animals play more than older ones (they have more to learn) and why those species that depend most on learning and least on rigid instincts play the most. Moreover, as Groos pointed out, one can predict quite well what animals will play at by knowing the chief constraints on their survival. For example, predatory animals play at chasing, creeping, and pouncing, while prey animals play at fleeing, dodging, and escaping.

In a second book, *The Play of Man*, Groos (1901) extended his insights about animal play to humans. He pointed out that humans, having much more to learn than do other animal species, play much more than do other species. He also pointed out that young humans, unlike other animals, must learn different skills depending on the unique culture in which they develop. Therefore, he argued, natural selection led to a strong drive, in human children, to observe the culture-specific activities of their elders and incorporate them into their play. Groos referred to his theory as a theory of play, but it could equally well be viewed as a theory of self-directed

education, or at least as one major foundation for such a theory. Children educate themselves by observing the skills exhibited by those around them and then playing at those skills to become good at them. Although research on hunter-gatherer education came after Groos's time, the findings from such research fit very well with Groos's theory, and so do observations of play in modern democratic schools (discussed later).

Our species is not only the most curious and playful of mammals but also among the most sociable. Instinctively, we understand that our survival depends on our ability to connect with, cooperate with, and learn from other people. We are irresistibly drawn to others, especially when we are young. We want to do what those around us do, know what they know, and share our own knowledge and thoughts with them. Thus, our natural sociability provides a major foundation for self-directed education. Our most unique adaptation for social life, and our most unique adaptation for education, is language. Language allows us to share all sorts of information with one another, well beyond what is possible for other species. It allows us to tell one another not just about the here and now but also about the past, future, and hypothetical. Language in everyday life is a major vehicle of self-directed education.

A series of experiments directed by Sugata Mitra and his colleagues in India, in the late 1990s and early 2000s, nicely illustrates the roles of curiosity, playfulness, and sociability in self-directed education. These researchers installed a total of 100 computers outdoors, mostly in poor neighborhoods, including places where most of the children were unschooled and illiterate. In each case, they told the children who gathered that they could play with the installation but said nothing about what it could do or how to use it (Mitra, 2003, 2005; Mitra & Rana, 2001). Wherever the computers were installed, the same general results occurred. Children who had never previously seen a computer approached and explored the strange device. Apparently by accident, they discovered that they could move a pointer on the screen by moving their finger across a touch pad. This inevitably led to a series of further discoveries about what they could do with the computer, and each new discovery, made by one child or a group, was shared with others. Mitra estimates that for every computer he and his colleagues set up, roughly 300 children became computer literate within 3 months of the computers becoming available.

In many cases, the children learned much more than how to use the computer. Some who could not read began to learn to read through their interactions with the computer, and those who could read sometimes found and downloaded articles that interested them, in the language in which they were literate (typically Hindi or Marathi). Children who were at an early stage of learning English learned many English words through their interactions with the computer. In one remote village, children who previously knew nothing about microorganisms learned about bacteria and viruses through the computer and began to use this new knowledge appropriately in their conversations (Mitra & Dangwal, 2010). Mitra referred to such education as *minimally invasive education*, education with the least possible adult intrusion into the children's lives.

Mitra's observations illustrate nicely how children's curiosity, playfulness, and sociability combine to provide a powerful foundation for education. *Curiosity* drew the children to the computer and motivated them to manipulate it in various ways to learn about its properties. *Playfulness* motivated them to become skilled at using certain functions of the computer. For example, those who had already explored the Paint program and knew how to use it were

motivated to play with that program, to paint pictures, with the result that they became skilled at computer painting. Such play, in turn, often led to new discoveries, which renewed curiosity and led to more exploration. *Sociability* motivated the children to explore and play together and to share their discoveries. When one child made a discovery, such as that clicking on an icon would cause the screen to change, they would announce it to the others, and they, in turn, would try it out. Thus, each child's discovery spread quickly through the whole group of children nearby, and then some child in that group might carry the new knowledge to a friend in another group, where it again spread quickly, and so on. In this way, each child's discovery became the knowledge of many.

Unschooling: Home-Based Self-Directed Education

Definition of Unschooling

The most common route to self-directed education (SDE) today is that generally referred to as *unschooling.* For legal purposes, unschooling is a variety of homeschooling, but it differs from conventional homeschooling in that there is no imposed curriculum. Here is how unschooling was defined for the purpose of recruiting unschooling families for a survey (Gray & Riley, 2013):

> Unschoolers do not send their children to school, and they do not do at home the kinds of things that are done at school. More specifically, they do not establish a curriculum for their children, they do not require their children to do particular assignments for the purpose of education, and they do not test their children to measure progress. Instead, they allow their children freedom to pursue their own interests and to learn, in their own ways, what they need to know to follow those interests. They also, in various ways, provide an environmental context and environmental support for the child's learning. Life and learning do not occur in a vacuum; they occur in the context of a cultural environment, and unschooling parents help define and bring the child into contact with that environment. (p. 7)

As noted earlier, the term *unschooling* was coined, in the 1970s, by educational critic and author John Holt, whose writings are cited by many unschooling families as playing a key role in their decision to take this educational route (Gray & Riley, 2013). Holt provided guidance and encouragement for early unschooling families through his magazine *Growing Without Schooling.* After his death in 1985, the magazine was continued, until 2001, with Patrick Farenga as editor. Today, a number of online magazines and newsletters are dedicated to unschooling, one of the most prominent being *Life Learning Magazine*, edited by Wendy Priesnitz.

Some in the unschooling movement, including Priesnitz (2023), prefer the term *life learning* to *unschooling*, because it emphasizes what learners do rather than what they do not do. Generally, people who take this educational path do not see education as separate from the rest of life. All of life involves learning, and the net, lasting, cumulative effect of such learning is education. Although it is not uncommon for unschoolers to take courses as part of their education—such as

online courses or courses at a local library, community center, or community college—they do so only of their own free will, and they do not consider courses to be their primary route to education.

As there is no official registry of unschoolers, there is no way to know just how many there are. A common, semieducated guess, made by organizers of homeschooling conferences in the United States, is that approximately 10% of children registered as homeschoolers are unschoolers (Gray & Riley, 2013). The number of registered homeschoolers in the United States increased dramatically following the March 2020 COVID-19 lockdown of schools, from 5.4% in March 2020 to 11.1% of all school-aged children a year later, according to the U.S. Census Bureau (Eggleston & Fields, 2021). Some of the new homeschoolers subsequently returned to conventional schooling, but state-by-state reports indicate that many if not most have stayed with homeschooling (Romero, 2022). Combining these estimates suggests that roughly 1% of American school-aged children are currently unschooled, which amounts to about 600,000 children. If the definition of unschoolers were expanded to include *relaxed homeschoolers*, who are provided a loose curriculum at home with great flexibility for choice and little enforcement, the number would be much larger.

Although the unschooling movement began in the United States, unschooling families can now be found throughout much of the world, although in many countries, the practice must be carried on underground, because it is not a legal substitute for curriculum-based schooling. Unschooling advocate and author Sandra Dodd lists, on her website, unschooling networks in 19 nations (Dodd, 2023).

Unschooling as a Family Life Choice

In an ethnographic study involving interviews of 22 unschooling families in the northeastern United States and home visits to a subset of them, Kirschner (2008) concluded that unschooling is a life choice, not just an educational choice. Unschoolers, as she saw them, were trying "to achieve an alternative way of being human, an alternative moral and social order of sorts." As a group, they strove to live in nondominating harmony with one another and with nature. In addition to unschooling, their lifestyle commonly included attachment parenting, concern for the environment, natural foods, preference for homemade materials, and unhurried lives.

In a study involving content analysis of mothers' online chat groups and bulletin boards, supplemented by an online survey, Grunzke (2010) concluded that the unschoolers in her sample were a cultural subgroup quite different from the conventional homeschoolers in her sample. The unschooling mothers, on average, engaged in far more "alternative parenting tasks"—such as natural childbirth, no circumcising, having a family bed (co-sleeping with infants and young children), extended breastfeeding, babywearing, and preparing whole or organic foods—than did the conventional homeschooling mothers. In another study, involving interviews of 30 unschooling families in Australia, English (2014) came to conclusions similar to those of Kirschner and Grunzke. Many of her unschooling families chose that route because it seemed to follow naturally from their attachment parenting philosophy. More recently, in a content analysis

of blog posts by unschoolers in Australia and New Zealand, O'Hare and Coyne (2020) described how the bloggers viewed themselves and their readers as part of a countercultural group, supporting one another and counteracting the social forces that seemed to work against them.

In a larger study, Gray and Riley (2013) surveyed 232 unschooling parents, mostly mothers and mainly in the United States, to learn about their paths to unschooling and their perceptions of its benefits and challenges. The survey revealed that only 28% of these families started with unschooling, with their first child. The others all started with conventional schooling, curriculum-based homeschooling, or both (in sequence) before switching to unschooling. Those who unschooled from the beginning seemed to be most like the unschoolers described by Kirschner, Grunzke, and English. For them, unschooling typically followed naturally from a lifestyle that included natural living and attachment parenting. This was less true for the other groups, who were more likely to choose unschooling because of their perceptions that their children were unhappy or failing to thrive in school or curriculum-based homeschooling and/or because of their perceptions of how much and how eagerly their children were learning on their own initiative. Why, they asked, should they fight with their children to make them follow a curriculum when they were learning so well without one?

The most frequent benefits of unschooling reported by the survey respondents included improved learning, better attitudes about learning, and improved psychological and social well-being for the children, as well as increased closeness, harmony, and freedom for the whole family, which derived from not having to follow a school-imposed schedule. The most frequent challenge expressed, by far, was that of overcoming feelings of criticism or social pressure—from neighbors, relatives, society in general, and their own school-ingrained ways thinking—that resulted from taking a nonnormative educational path.

Survey of "Graduates" of Unschooling

To learn about consequences of unschooling, Gray and Riley (2015; Riley & Gray, 2015) surveyed 75 adults, ages 18 to 49 (median age 24), who had been unschooled during at least what would otherwise have been their last 2 years of high school, recruited through an online announcement on sites frequented by unschoolers. Twenty-four of the participants had been unschooled for all of what elsewhere would have been their K–12 years; another 27 had some schooling or curriculum-based homeschooling, but none after Grade 6; and the remaining 24 had some schooling or curriculum-based homeschooling after sixth grade but none in what would have been Grades 11 and 12. They responded, in writing, to open-ended questions about their unschooling experiences and various aspects of their adult life.

Qualitative analyses of the responses led to the following conclusions: Most reported that they were very happy with their unschooling and would most likely unschool any children they might have or were already unschooling their school-aged children. Nearly all valued the freedom unschooling gave them to pursue their own interests in their own ways, and many credited this childhood freedom for what they saw as their continued high levels of self-motivation, self-direction, and interest in learning. Most said they had satisfying social lives as unschoolers, and

many commented on the special value of having friends of a wide range of ages, which they believed would not have occurred if they had been enrolled in school. Only three reported that they were, overall, unhappy with their unschooling, and those three all indicated that they had been socially isolated, in dysfunctional families, and that unschooling was not their own choice.

Sixty-two of the 75 respondents had gone on to some form of higher education, and 33 of these had either completed or were currently enrolled in a bachelor's degree program. Overall, they reported little difficulty getting into colleges and universities of their choice and adapting to the academic requirements there, despite not having the usual admissions credentials. One unexpected finding was that those who had been unschooled throughout their school-age years were significantly more likely to go on to a bachelor's program than were those who had some schooling or curriculum-based homeschooling during those years. One common route to a bachelor's program was to take one or more community college courses, often while still of high school age, and use that transcript as part of their application. Many also reported that portfolios and interviews helped them gain admission.

Concerning careers, despite their young median age and the economic recession at the time, most reported that they were gainfully employed and financially independent. A high proportion (relative to the general population) had chosen careers in the creative arts (including writing and performing arts as well as visual arts), a high proportion were self-employed entrepreneurs, and a relatively high proportion, especially of the men, were in science, technology, engineering, and math (STEM) careers. Most felt that their unschooling benefited them for higher education and careers by promoting their capacity to take charge of their own lives and learning. Many also described a natural transition from childhood play to adult employment; they found employment that made direct use of the passions and skills they had developed in play.

This study helps us understand how unschooling works when it works well, but because the sample was self-selected, we cannot know how representative it is of all unschoolers. At present, it is not possible to identify and study a random or normative sample of grown unschoolers, as there is no comprehensive registry or listing of them from which to draw. At minimum, however, the study shows that, at least for some, unschooling is quite compatible with a successful adult life.

How Unschoolers Learn to Read

A frequent question concerning SDE is that of how children learn to read without formal instruction. A common assumption is that learning to read is difficult and requires deliberate teaching. This assumption is held even by some who view education from an evolutionary perspective. For example, Geary has distinguished between primary skills, which can be learned naturally without direct instruction, and secondary skills, which require direct instruction (Geary, 2008; Geary & Berch, 2016). Primary skills are those that were crucial throughout all or most of human evolution (e.g., social and emotional skills, learning one's native language, and

learning to build things), and secondary skills, which include literacy and numeracy skills, are those that are new in human evolutionary history for which special evolved brain mechanisms are lacking.

Ellis and Bloch (2021) have taken issue with Geary's primary–secondary distinction based on the adaptability of human brain mechanisms and the broad nature of the problems that hunter-gatherers successfully grappled with. They contend that reading and writing are not fundamentally different, cognitively, from understanding and speaking oral language and that numerical calculation is not fundamentally different from the sorts of logical analyses that hunter-gatherers conduct regularly. Others have pointed out that, prior to universal schooling, in the mid-19th century, roughly three fourths of the population in England and the United States were already literate and that most children in literate families learned to read with only informal help at home (e.g., Thomas, 2016).

Some insights concerning self-directed learning to read derive from studies of *precocious readers*, defined as children who read fluently by age 4, before any formal schooling. Roughly 1% of U.S. children meet this criterion (Olson et al., 2006). In interviews, most parents of such children reported that they often read to the child but did not in any deliberate way teach reading (Margrain, 2005; Olson et al., 2006). In the typical case, the parents at some point discovered, to their surprise, that their child was reading, at least in a preliminary way, and then fostered that reading by providing appropriate reading materials and answering the child's questions about words. In essentially no cases did they provide anything like the systematic training in either phonics or word recognition that occurs in school. Such research also suggests that the primary distinction between precocious readers and other children has to do with an early, self-generated desire to read (Olson et al., 2006). Motivation, not cognitive ability, seems to be the primary determinant.

To date, the most systematic study of learning to read without school, among children of all ages, was conducted by Pattison (2016), who surveyed 300 homeschooling parents with questions about how their child learned to read. Although most of these families did not identify as unschoolers, they, like most homeschoolers, had generally drifted over time toward increasingly informal approaches to education, and that seemed to be especially true with reading. In response to a direct question of whether they had taught their child to read, 91 said yes, 133 said no, and the remaining 87 indicated that it depended on what is meant by "teaching." Many reported that they had tried to teach reading, often using the phonics-based methods favored in schools, but that their child resisted, so they ended the lessons and allowed the child to learn in their own way. When asked how they had helped their child learn to read, the most common response was that they had frequently read to the child.

In line with a conclusion of the precocious readers research, Pattison's (2016) survey revealed that the primary determinant of when a child learned to read was motivation. When children were not self-motivated to learn, they resisted lessons and learned slowly or not at all. When they were motivated, they immersed themselves in reading and asked for help when they needed it. The age at which that motivation arrived varied greatly from child to child, even within the same family. A few had learned to read by age 3 or 4, and at the other extreme, a few did not learn until they were

teenagers. Another survey, of parents of 109 unschooled children, which asked only about age of first fluent reading, found a range from 2.5 to 16 years, with a median of 9 years (Isaac, 2018). Pattison's study and less formal reports from unschooling families (Gray, 2016) suggest no apparent relationship between the age at which a child learns to read and their ultimate reading interest and ability.

In contrast to the casual approach of unschoolers toward reading, much research has gone toward finding the scientifically best way to teach reading in schools. Much of that has centered on a long-standing debate between those who believe that most emphasis should be on phonics, right from the beginning, and those who favor a "whole-language" approach, in which first reading is for meaning, with phonics coming later. In recent decades, many controlled experiments have compared the two approaches, always in classroom settings, and the consensus of most reviewers is that phonics first is the clear winner (Kim, 2008). Today, nearly all schools teach reading by starting with letter recognition, then learning the sounds each letter can represent, then decoding words phonetically, and, finally, reading for meaning. In marked contrast to this, the studies of self-directed learning to read show that children start, right off, reading for meaning (Olson et al., 2006; Pattison, 2016). They first learn to identify words that are meaningful to them. Then, gradually, as they learn more words, they begin to put words together and see relationships between similarly sounding words. Along the way, they infer (consciously or unconsciously) the phonetics of written words or get help in sounding out new words and thereby learn to decode words they have not seen before.

It is perhaps unsurprising that a phonics-first approach works best in classrooms while whole language is the most common approach for self-directed learners. School teachers have the unenviable task of teaching reading to a classroom of children, all at once, regardless of their individual differences and interests. Under this condition, a focus on the mechanical processes underlying reading, especially the conversion of sights to sounds, works better than attempting to promote reading through meaning, which requires that students care about meaning, which requires that they be able to follow their own interests, which is generally not possible in a classroom. The common classroom methods of direct instruction and drill can be applied to teaching phonics but not to whole-language reading. Classroom teachers do not have the luxury, which homeschooling/unschooling families have, of waiting until a child becomes interested in reading. A problem with this phonics-first approach is that many children in school learn to decode and "read" out loud with correct pronunciation but then have difficulty making the transition to reading for meaning (Ellis & Block, 2021). Reading to them is a mechanical exercise, not a meaningful one.

It would be interesting to pursue the question also of how unschooled children acquire an understanding of basic principles of mathematics. Gray (2010) conducted a survey of 18 unschooled parents concerning this question, which resulted in a set of anecdotes about how children acquired understandings of numerical concepts through play and day-to-day necessity, and published this as a blog post in which he distinguished between playful and instrumental learning of math concepts. But to date, there have been no studies of unschooled learning of mathematics comparable in scope and formal methodology to Pattison's (2016) study of reading.

Schools for Self-Directed Education

The Free School Movement of the 1960s and Early 1970s

Many of the concepts that underlie Self-Directed Education (SDE) today had their origins in the *free school movement* of the 1960s and early 1970s, a time when many radically alternative schools called *free school*s were started, with students free to choose their own activities and take charge of their own education. The history of this movement is well documented in a book by Miller (2002) and in an exceptionally well-researched undergraduate thesis by Hausman (1998). As Hausman points out, the free school movement was part of the larger, antiestablishment Movement (with a capital M) of this time. Concern about such issues as racial discrimination, poverty, and the escalating Vietnam War prompted high levels of political activism among young Americans and led many to question the morality of established institutions, including conventional schools.

Two books published in 1960, both of which became bestsellers, helped set the stage for the free school movement. One was Paul Goodman's (1960) *Growing Up Absurd* and the other was A. S. Neill's (1960) *Summerhill: A Radical Approach to Child Rearing.* Goodman is credited with providing much of the intellectual foundation for the movement (Miller, 2002). In this book and in his later book, *Compulsory Miseducation* (Goodman, 1964), Goodman contended that schools and the mass media were dehumanizing people. The focus on material wealth, superficial indices of achievement, and climbing the societal hierarchy or fitting cog-like into the economic machine was causing people to lose touch with their willful, creative, spontaneous, and authentically social human nature. Neill's book provided readers with a model of a school with very different goals and means from conventional schools, much in keeping with the nonauthoritarian ways of life envisioned by Goodman.

Neill had founded a boarding school, called Summerhill, in the 1920s, where he was principal until his death in 1973. It still exists today, in Suffolk, England, now with Neill's daughter Zoe Readhead as principal. The book *Summerhill*, a collection of some of Neill's previous writings, was published in the United States, in 1960, along with a strongly supportive foreword by the well-known psychoanalyst and social critic Eric Fromm. At Summerhill, children were largely free to do what they wanted, study or not study, and they were involved in the school's governance through schoolwide meetings. Neill was far more concerned with children's happiness and healthy emotional development than with their academic achievement. The book sold hundreds of thousands of copies in the 1960s, and by 1970, it reportedly was assigned reading in approximately 600 university courses (Miller, 2002).

Soon after the publication of Neill's book, the Summerhill Society was formed in the United States, which published a bulletin that disseminated ideas and information supportive of educational freedom. New, little private schools, referred to generally as *free schools*, began to sprout up throughout the United States. The schools in many ways emulated Summerhill, although they were day schools, not boarding schools. They were places for children to play, explore, and join courses only if they wanted to. It is impossible to know just how many of these

schools were created, because they did not all register with a central network. However, a count of schools listed in the *New Schools Exchange Directory* reveals a remarkably rapid rise and fall of the number of such schools: from zero prior to 1964, to 50 in 1968, to about 320 in 1971 and then falling to about 140 in 1975 and 55 in 1978 (Hausman, 1998). Most of the schools were small, typically between 15 and 60 students, and their average life span was about 3 years. The total enrollment in such schools, at the peak of the movement in 1971, is estimated to be only about 10,000 students (Miller, 2002). So, in terms of students served, the free school movement was much smaller than the number of children in unschooling families today.

Based on interviews of 17 people who had been intimately involved in the free school movement, Hausman (1998) described several interrelated reasons for the movement's rapid decline. A major cause was the decline in the larger antiestablishment Movement, as American society shifted toward more conservative values. Another was lack of money. Public funding was not available for such unconventional schools, and the schools charged very low tuitions, partly because of the egalitarian desire to include students from poor families and partly because people who could afford high tuitions were rarely interested in sending their children to such antiestablishment (or at least nonestablishment) schools. The idealists who had founded the schools and operated them for little or no pay discovered, as time went on, that they needed to make a living, so they left for other jobs and the schools collapsed. Personality differences and disagreements among and between staff and parents also led to the demise of many schools. Most of the schools had established no clear means to make decisions when consensus could not be reached, which led to partings of ways and collapse of schools. Some schools survived but were compromised in such ways that they could no longer be classed as free schools when new parents and staff members pushed for and instituted changes that reduced children's freedom and made the schools more like conventional progressive schools.

Today, it appears, only two of the schools that were founded in the heyday of the free school movement in the United States still exist with their philosophy intact. One is the Albany Free School, founded in 1969, and the other is the Sudbury Valley School, founded in 1968. Summerhill, too, still exists, having celebrated its centennial in 2022. All three of these schools have survived because of committed founders, who stuck with the school through difficult times, and because they found ways to bring in enough money to pay staff members and developed clear decision-making procedures that involve students and staff but not parents. Parents at these successful schools can enroll or remove their child but have no power to alter the way the school operates.

Although the free school movement died out, its legacies remain. One legacy is the rise in unschooling. It is interesting to note that John Holt's earliest writings supported school reforms and free schools, but by the early 1970s, he was advocating homeschooling and unschooling. His writings both reflected and helped to cause the shift from free schooling to unschooling. Much of the pedagogical philosophy and language of the free school movement can be found today in the writings and speeches of unschooling advocates. Another legacy is the rise of *democratic schools*, of which Sudbury Valley and Summerhill are leading exemplars.

Contemporary Democratic Schools

The founders of the Sudbury Valley School, in Framingham, Massachusetts, never embraced the term *free school*, because to them, the term connoted anarchy and lack of a formal governing system. They were less inspired by Goodman and others who believed that problems and disagreements could be worked out organically and spontaneously in a free environment and more inspired by basic principles of American democracy, especially as practiced in participatory town meetings (Greenberg, 1970). They believed that institutions work best when governed by the people they are supposed to serve, so they designed a school governed by its students. Sudbury Valley is, essentially, a democratic community, in which students are accorded the full rights and responsibilities of democratic citizenry. The leading philosopher among the founders was and is Daniel Greenberg, who, from the school's beginning in 1968 until his passing in 2021, remained as one of the school's most active staff members and the most prolific exponent of its philosophy.

Since the founding of Sudbury Valley, many new schools for SDE have emerged that are modeled after or at least inspired by that school. Some refer to themselves as Sudbury schools, but the more generic term that has gained increased acceptance is *democratic schools*. In 2016, Wikipedia listed 47 schools that referred to themselves as "Sudbury schools," 34 of which were in the United States, but since then, the list has been removed because Sudbury Valley objected to the idea of an official definition and list of Sudbury schools. Moreover, other democratic schools have emerged, including those under the umbrella terms *Liberated Learners* and *Agile Learning Centers*, which operate in some ways differently from Sudbury Valley. The unifying characteristic of democratic schools is the absence of imposed educational requirements, respect for the individual rights of students, and student involvement in school governance.

Schools that most closely follow the Sudbury model have the following characteristics. They are governed by the School Meeting, which includes all students and staff members, at which each person, regardless of age, has a vote. This body, led by an elected student chairperson, meets once a week and, generally following Roberts Rules of Order, legislates all rules of behavior and establishes committees to oversee the school's day-to-day operations. The rules are enforced by a Judicial Committee, modeled after the jury system of our larger society, which typically includes one staff member and several students who span the age range of students at the school. The students, who generally range in age from 4 or 5 years to the late teenage years, are never segregated by age. Students of all ages are free to roam throughout the school building and campus. (For a discussion of how all this works from a parent's perspective, see Traxler, 2015)

The educational philosophy of these schools is essentially the same as that of a hunter-gatherer band. The assumption is that if young people have ample opportunity to play, explore, and follow their own interests, in an environment rich in educational opportunities, they will learn what they must for adult success. The schools give no tests and do not in any way evaluate students' progress. There is no curriculum and no attempt by staff to motivate learning. Courses occur only when a group of students takes the initiative to organize one, and then the course lasts only as long as the students want it to last. Many students never join a course. The staff members do not consider themselves "teachers." They are, instead, the adult members of the community. They

are the more mature and often more persuasive voices at school meetings, the people students go to with problems that other students cannot help them with, the ones most often designated by the school meeting to carry out administrative tasks, and the primary interface between the school and the larger community. Most of their "teaching" is of the same variety as can be found in any human setting and is like the ways in which students teach one another, through naturally occurring conversations and responding naturally to questions and requests for help.

Gray (2016) has contended that Sudbury schools work well as a setting for SDE because they provide, for our time and place, educational conditions that are similar to those of a hunter-gatherer band. These include (a) the social expectation that education is children's responsibility (which becomes a self-fulfilling prophecy); (b) unlimited freedom to play, explore, contemplate, and pursue one's own interests; (c) access to the tools of the culture and opportunity to play with those tools (use them in creative, self-directed ways); (d) access to a variety of adults, who are helpers, not judges (people are more ready to seek help from someone who does not judge them than from someone who does); (e) free age mixing among children and adolescents (younger students acquire advanced skills and knowledge by observing and interacting with older ones, and older students develop leadership and nurturing abilities by interacting with younger one); and (f) immersion in a stable, moral, democratic community (which helps students acquire a sense of responsibility for the community as a whole, not just for themselves).

Greenberg (1992) long claimed that free age mixing is the key to learning at Sudbury Valley, and research tends to bear that out. A quantitative study revealed that more than half of the naturally occurring interactions among students at the school involved students who were more than 28 months apart in age, and 25% of them involved students who were more than 48 months apart (Gray & Feldman, 1997). In a subsequent, long-term observational study, Gray and Feldman (2004) identified many ways by which older children boosted younger ones into higher realms of physical and intellectual activity, as well as taught them new skills and concepts, in their naturally occurring age-mixed interactions, and also identified ways in which older children practiced nurturing, leading, and natural teaching in interactions with younger ones. (For a general review of research on the educational value of mixed-age groupings, see Gray, 2011b.)

Sudbury Valley and the schools closely modeled after it are the most pristine exemplars of democratic schooling. These are the schools that most fully involve students in school governance and where staff members most fully leave students to choose and direct their own activities. Many other schools that call themselves democratic schools bear similarities to Sudbury schools in these respects but do not go as far. Summerhill, for example, seems to offer as much freedom as it legally can, but U.K. educational policy requires the school to offer a standard set of courses and give state-required exams. The school does not require students to attend classes, but the mere presence of classes and tests, which the students did not request, may establish implicit if not explicit educational expectations. The Alternative Education Resources Organization (2023) lists approximately 360 democratic schools worldwide, broadly defined, although it is not clear that all of them are currently operating. These schools vary widely in their degree of democratic governance and degree of educational free choice.

Evidence of growing worldwide interest in democratic schooling is also documented on the website of the International Democratic Education Network (2023). The first International Democratic Education Conference (IDEC) was held in Israel, in 1993, with representatives from a small number of schools. Since then, IDEC has been held annually, in a different country each year, with, in recent years, hundreds of attendees from 30 or more different countries. There are also now annual conferences held by the European Democratic Education Community and the Australian Democratic Education Community. In 2016, the first ever conference of the Asia Pacific Democratic Education Community was held, in Taiwan, with representatives from Taiwan, Japan, Malaysia, Korea, the Philippines, Hong Kong, and India. For more about these organizations and conferences, see websites at eudec.org, adec.edu.au, and apdec.org.

Follow-up Studies of Graduates of Democratic Schools

In the mid-1960s, Emmanual Bernstein located 50 former students of Summerhill who were living in and around London and interviewed them in their homes. In an informal, discursive report on these interviews, he concluded (Bernstein, 1968, pp. 131–134),

> The majority of Summerhillians had only one major complaint against the school: the lack of academic opportunity and inspiration along with the lack of inspired teachers. . . . Throughout my visits I was to find Summerhill homes filled with warmth and responsive understanding; they were happy, communicative families. . . . My feelings were mainly positive. Almost all of its former students were working; raising responsive children; enjoying life. And the group who returned to the regular state schools were so enthusiastic about learning that they caught up with the others within a year.

These former students occupied a wide range of careers, and some had jobs that obviously required a good deal of advanced education after leaving Summerhill (there were two physicians, two lawyers, a zoologist, and a university professor in the group).

More recently, Lucas (2011) published a book based on extensive interviews of 15 former Summerhill students who had been at the school at different periods over its then 90-year history. The book is more a history of the school and set of selected autobiographies than a systematic study of former students, but the pictures of the interviewees that emerge are quite consistent with Bernstein's earlier conclusions. What these former students valued most was the independence and adaptability the school fostered in them, and their life stories showed how these characteristics had served them well.

In 1983, when Sudbury Valley was smaller than it now is and had been in existence for 15 years, Gray and Chanoff (1986) conducted a follow-up study of the school's graduates. The school's directory listed 82 former students who met the researchers' definition of graduates—people who had been students at the school for at least 2 years and had left at age 16 or older with no plans for further secondary education. They located 76 of these, and 69 of them completed and returned the rather extensive survey questionnaire (a response rate of 91% of those who could be located, or 84% of the total). The questionnaire asked about their activities when they were

students at the school, their subsequent education and employment after leaving Sudbury Valley, and how their attendance at such an unusual school may have handicapped or benefited them in their postgraduate life.

Overall, those who had pursued higher education (about 75% of the total) reported no particular difficulty getting into the school of their choice or adapting to the academic requirements. This was true for those who had been at Sudbury Valley for most or all of what would elsewhere have been their K–12 years, as well as those who had been there for shorter periods. They were pursuing a wide variety of occupations, including business, arts, science, medicine, other service professions, and skilled trades. Many of the graduates were pursuing careers that were direct extensions of activities they had played at as children. For example, one graduate, who had devoted much time to creating dolls' clothes and then her own clothes when she was at the school, had become a pattern maker in the high-fashion industry. Another, who had played extensively with boats as a young girl, became a ship captain. Another, who had devoted countless hours to creating miniature clay models and tinkering with mechanical devices, had become a machinist and inventor. Those who had become professional musicians, artists, or computer specialists all had developed the relevant passions and skills in their freely chosen activities at the school.

Most of the graduates said that a major benefit of their Sudbury Valley education was the high sense of personal responsibility and self-control, as well as continued motivation to learn, that the school fostered. A few said they had felt somewhat handicapped, academically, when they started college but were able to make up their perceived deficiencies quickly. In response to a final question, none said they regretted having gone to Sudbury Valley rather than a more traditional school.

Subsequent to Gray and Chanoff's (1986) study, the school itself conducted two more studies of former students and published them as books (Greenberg & Sadofsky, 1992; Greenberg et al., 2005). The second of these is most relevant for understanding the effectiveness of a Sudbury Valley education, as it focused exclusively on those who had been students at the school for at least what would elsewhere have been their last 3 years of high school and had been out of the school for at least 4 years. The school records indicated that a total of 199 former students met these criteria, and the researchers managed to locate and interview 119 (60%) of them. The interviewer was a person who was not associated with the school and was previously unknown to the graduates, and the questions focused on a wide range of their experiences since leaving the school. Among the findings were the following:

Eighty-one (68%) of these graduates had enrolled in 4-year colleges at some point after graduation, and an additional 11 had pursued some other form of education. Most who went on to college reported no unusual difficulty getting into the school of their choice. Most who went to college reported that they were very satisfied with their college experiences. Some, however, said they had difficulty adapting, at first, to the deadlines and requirements, and some complained that the rigid requirements, hierarchical structure, and immature classmates at college made their educational experience less than it could have been.

This study, like the earlier one by Gray and Chanoff (1986), revealed that the graduates had gone on to a wide variety of jobs and careers. Relative to the general population, particularly high proportions of them were employed to the fields of arts and design, community and social services, and computers and math. In response to the question of why they had chosen the line of work they were in, 65% talked about their passion for and enjoyment of the work, and 42% indicated the value of serving others. Other questions revealed that the graduates generally saw their primary personal strengths as responsibility, self-confidence, commitment, ability to relate well to others, and control over their own lives. Consistent with the democratic nature of Sudbury Valley, an analysis of their discussions about personal values indicated the highest ranking for what the researchers referred to as "American values" but what might better be called "democratic values," including egalitarianism, freedom, respect/tolerance, responsibility, and the rights of individuals.

More recently, follow-up studies have been conducted of graduates of two other democratic schools comparable to Sudbury Valley—the Circle School, in Harrisburg, Pennsylvania (Circle School, 2015; Rietmulder, 2019), and the Albany Free School (Morrison, 2022), with findings similar to those of the studies of Sudbury Valley graduates. Graduates of both schools reported success in higher education and satisfying employment in a wide range of careers.

Another recent follow-up study, of the Hudson Valley Sudbury School in Kingston, New York, focused on former students' experiences with and evaluations of the three features of the school that most characterize the Sudbury model—the democratic legislative and judicial processes, the nonintervention policy of the staff, and the freedom of students to associate with one another, regardless of age, throughout the school day (Gray et al., 2021). The survey included 55 former students, with an age range of 19 to 33 years (median 24), who had been at the school for at least 2 years during their elementary and/or secondary school years. Most reported that they were very happy with all these aspects of the school, although there were a few complaints. Several felt that the judicial proceedings were not as impartial as they could have been, several felt that the staff too often dominated the School Meetings, and two or three would have liked more staff initiative in their education.

A major finding was that nearly all the respondents reported that they most valued, and learned most from, their freely chosen interactions with other students. One student put it this way: "I think the other students were where I got my education from. We spent so much time socializing and learning from each other. Anything from cool sledding tricks to how to handle difficult social situations, we got directly from each other." And another wrote, "Having peers to learn from and to teach is fantastic. Sharing an interest with someone and learning about it together is one of the most effective ways that I learn."

Directions for Further Research

This final section presents three broad questions that could guide further research: (a) Would self-directed education (SDE) succeed for most people, if it were available to them? (2) How can families, learning centers, and society in general provide optimal conditions for SDE? (3) What are the long-term psychological consequences of greater autonomy in childhood?

The first question is most directly relevant to educational policy. At present, in many countries, full SDE—as in unschooling and democratic schools with no imposed curricula—is illegal, because it does not satisfy government criteria for adequate education. That is technically true even in many states in the United States, although people with sufficient determination have managed to find ways to get past the legal roadblocks. The underlying societal assumption is that, without curriculum-based schooling, many people would grow up lacking the skills required to support themselves and contribute meaningfully to the society, so all children must be compelled to go through such schooling.

Unschooling and democratic schooling present special challenges to policy makers because there is no short-term way to assess their effectiveness. With standard schooling, assessment is generally conducted with standardized tests. If tests reveal that students have learned what they are supposed to learn at their age and grade level, as dictated by the curriculum, then the schooling is deemed successful. But when there is no imposed curriculum, this method is senseless. A fundamental premise of SDE is that different people will learn different things, and to the degree that they learn the same things, they will learn them at different times, so there can be no standardized testing.

A research study by Martin-Chang et al. (2011), in Canada, illustrates this problem. These researchers set out to compare homeschooling children with a demographically similar group of public-school children, ages 5 to 10, on standardized academic tests. As part of the study, they interviewed mothers of the homeschoolers about their homeschooling methods and found that 12 of them described their methods as very relaxed and unstructured, and 9 in that group used the term *unschooling* in describing their method. As an afterthought, not part of the original design, they decided to separate these 12 from the other homeschoolers and treat them as a separate group. They found that the "structured homeschoolers" significantly outperformed the traditionally schooled group on all the academic tests, but the "unstructured homeschoolers" scored significantly lower than structured homeschoolers and somewhat lower than the traditionally schooled group (although not statistically significantly lower). This study was interpreted by some in the popular press, as evidence for structured homeschooling and against unschooling, but that is a misinterpretation. It should be no surprise that children, ages 5 to 10, who have been studying a standard school curriculum would perform better on tests of that curriculum than those who have not been studying it. The unschoolers may well have been learning other lessons, equally or even more important to the long run of their lives, which were not on the test. The largest gap between the unstructured and structured group was in reading. As noted earlier, unschooled children often do not learn to read until several years later than the standard school age for reading but then become highly proficient readers once they develop an interest. It seems likely that at least some of the "unstructured" children in the Martin-Chang et al. (2011) study would not yet have begun to read.

Any real assessment of the effectiveness of SDE would have to take a longer and broader view. How do people educated in this way adapt to the realities of life? Are they able to support themselves as adults? If they wish to go on to higher education, are they able to gain admission and benefit from it? Are they happy? Do they contribute in valuable ways to the larger society? How do they define success in life, and what steps are they taking to achieve that? The follow-up

studies summarized in this article are a start in answering such questions, but it would be useful to conduct such studies with broader samples and compare results for people from various backgrounds. Some democratic schools (e.g., the Philly Free School and Circle School) provide scholarships for children whose families cannot afford tuition, and it would be valuable to follow that population into adulthood.

The second question, about ways to facilitate SDE, was addressed earlier by listing the characteristics of democratic schools, particularly Sudbury schools, that appear to optimize SDE. What can be done outside of such schools, for unschoolers? One possibility is that libraries, which are already designed to facilitate self-directed learning, could become, more explicitly, centers for SDE. A survey of a sample of public libraries in the United States revealed that many have recently expanded their offerings well beyond the provision of books and other media (Gray et al., 2022). A growing number have added maker spaces, opportunities for play for older children as well as younger ones, and spaces conducive to conversation. Some have provided special services and events for homeschoolers, such as homeschooling clubs and science fairs, which, among other things, help homeschoolers find one another and work or play together. The Internet, of course, is widely recognized as a remarkable tool for SDE. Many unschoolers report using it to access lessons or whole courses on topics that interest them, and some report learning a foreign languages by playing games or watching videos in that language. The Internet also allows unschoolers to find and communicate with others, throughout the world, who share their interests. A study of the various societal tools that unschoolers are using could lead to further provisions of such tools.

The third question begs researchers to think of education as something much broader than acquisition of the kinds of skills and knowledge that constitute a typical school curriculum. How do young people learn to take responsibility for themselves? How do they learn to control their emotions, to think critically or creatively, and to get along well with others? How do they acquire values and learn to guide their lives in accordance with them? These are the kinds of qualities that grown unschoolers and Sudbury schoolers wrote or talked about most often in response to questions about what they gained from SDE. These cannot be taught; they can only be acquired in self-directed ways. It may be that the freedom, including time for reflection and self-examination, that is integral to SDE tends to optimize these aspects of development.

Much research, not generally thought of as related to SDE, has revealed beneficial developmental correlates of autonomy. Many studies have shown that increased autonomy in childhood predicts heightened creativity, satisfying interpersonal relationships, and increased psychological well-being and resilience (reviewed by Ryan et al., 2006). In a classic longitudinal study, children whose parents allowed them more freedom at home were subsequently judged by teachers, in Grades 6 and 9, to be more creative, resourceful, curious, independent, and confident than those who had experienced less freedom at home (Harrington et al., 1987). More recently, significant positive correlations have been found between the amount of self-structured time (time not being controlled by adults) that young children have and (a) scores on tests of executive functioning (Barker et al., 2014; Stucke et al., 2022), (b) indices of emotional control and social ability (Lehrer et al., 2014), (c) scores 2 years later on a measure of self-regulation (Colliver et al., 2022), and (d) measure of social success, goal flexibility, and life satisfaction in adulthood in

retrospective studies (Greve et al., 2014; Greve & Thomsen, 2016). Ideas about the roles of self–determination in development that derive from such research could be expanded in studies of children in SDE.

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