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Self-directed education – evidence base in brief

Self-directed education is a pedagogy grounded in biology, anthropology, cognitive science, psychology and child development. It is not claimed that self-directed education is the only way that children can learn. However, being as it is an approach based on and supported by well-established and rigorous research from across multiple disciplines, it is one which deserves respect.

This is not the experience of home educating families in England who report bias and discrimination in how local authorities treat them combined with a widespread lack of understanding. Local authorities seem to be increasingly demanding evidence of provision which looks like school - work completed, details of curriculum, subjects, objectives and aims —which is incompatible with self-directed approaches.

This document aims to give an overview of the research available and evidence base for self-directed education.

What is self-directed education?

It is a pedagogy grounded on the long-established scientific understanding of humans - and children in particular - as biologically and intrinsically motivated to learn the lessons of the culture in which they live. Humans throughout history and in most cultures in the world learn in a way which is self-directed. The skills and knowledge needed to thrive in this society might be different to those needed in hunter gatherer societies but science shows us that there are some fundamental aspects of being human and characteristics specific to our species. Self-directed education works with, rather than against, these natural drivers. Children and young people are supported to do what they are interested in, to socialise and play with children of different ages as they choose and to learn through immersion in their communities and with the tools of their culture.

Self-directed education is sometimes called autonomous education or unschooling (also radical or whole life unschooling). While these terms are not synonymous, they can all be used to describe educational provision centred around and driven by the individual learner's interests and needs.

The term 'unschooling' often encompasses a wider child rights-based approach to family life although there is considerable difference in how different people understand the different terms. For the purposes of this document and for simplicity 'self-directed education' is used.

The scientific basis for self-directed learning

Humans learn within culture and through social relationships

Research from across the disciplines of biology, evolutionary biology, anthropology, neuroscience and education shows us that throughout history and across cultures humans have learnt in a manner which is self-directed. That as a species we are innately social, driven by a need to understand and gain competence in our environment and culture and that we achieve this through our interactions with others and relationships. Humans, as a large brained species, have much larger social networks than our closest primates and are evolutionarily driven to learn from this. Studies show different aspects of learning from interaction with different ages, from play and emulating the behaviour of older children and of adults and from being the older in an interaction. We make active choices about who to learn from which can results in rapid adaptive evolution and uptake of new knowledge and skills.

- Carpendale, J., & Lewis, C. (2021). <u>What makes us human? How minds develop in social interactions.</u> Routledge.
- Carpendale J, Lewis C & Muller U (2018), <u>The development of children's thinking: Its social</u> and communicative foundations.
- Boyette, AH 2016. <u>Children's play and the integration of social and individual learning: a cultural niche construction perspective</u>. In Terashima, H & Hewlett, BS (eds) Social learning and innovation in contemporary hunter-gatherers. Tokyo: Springer Japan:159–169.
- Battiste (2002) <u>Indigenous Knowledge and Pedagogy in First Nations Education: A Literature Review With Recommendations</u>
- De Beer, J. Mentz E. (2016) <u>Self-Directed Learning: Lessons From Indigenous Knowledge Holders For School Science Education</u> Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology.
- Lew-Levy S, Crittenden AN, Boyette AH, Mabulla IA, Hewlett BS & Lamb ME (2019), <u>Inter-and intra-cultural variation in learning-through-participation among Hazda and BaYaka forager children and adolescents from Tanzania and the Republic of Congo, Journal of Psychology in Africa 29.4</u>
- Richerson, Peter J., Boyd, Robert (2020) <u>The human life history is adapted to exploit the</u>
 adaptive advantages of culture Philos Trans R Soc Lond B Biol Sci. 2020;375(1803):20190498.
 doi:10.1098/rstb.2019.0498
- Taggart J, Heise MJ & Lillard AS (2018), <u>The real thing: Preschoolers prefer actual activities to pretend ones</u>, Developmental Science 21.3
- Gray, P. (2011) The Special Value of Children's Age-Mixed Play, Journal of Play

- Gray, P. (2009) Play as a Foundation for Hunter Gatherer Social Existence, Journal of Play
- Gray, P. and Feldman, J. (2004) <u>Playing in the Zone of Proximal Development: Qualities of Self Directed Age Mixing between Adolescents and Young Children at a Democratic School</u>
 American Journal of Education

Problem-based learning (aka learning from real life) and collaborative learning

That we learn effectively from life and through collaboration has also been studied as part of education, there is a wide body of research on how it aids our ability to learn.

- Yew, Elaine H.J., Goh, Karen (2016) <u>Problem-Based Learning: An Overview of its Process and Impact on Learning</u>
- Schalk Raath & Aubrey Golightly (2016): <u>Geography Education Students' Experiences with a Problem-Based Learning Fieldwork Activity</u>, Journal of Geography,
- Janssen, J., Kirschner, F., Erkens, G., Kirschner, P.A. & Paas, F., 2010, 'Making the black box of collaborative learning transparent: Combining process-oriented References 372 and cognitive load approaches', Educational Psychology Review 22(2), 139–154. https://doi.org/10.1007/s10648-010-9131-x

Internal motivation, curiosity, interest, 'obsession'

Psychology and cognitive science further helps our understanding of human motivation, how curiosity, interest, the need to seek out what is novel, to explore and gain competence and mastery are fundamental to how we function.

Furthermore the leading theory of human motivation, Self-Determination Theory (SDT), has given us an understanding of what is required to promote motivation and healthy psychological and behavioural functioning. Psychologists Ryan and Deci's 1985 book, *Intrinsic Motivation and Self-Determination in Human Behavior*, sparked decades of research and empirical studies into how supporting -- or thwarting -- people's basic needs for competence, relatedness, and autonomy affects development and well-being.

"Intrinsic motivation. Perhaps no single phenomenon reflects the positive potential of human nature as much as intrinsic motivation, the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore and to learn.

Developmentalists acknowledge that from the time of birth, children, in their healthiest states, are active, inquisitive, curious, and playful, even in the absence of specific rewards." (Csikszentmihalyi & Rathunde 1993; Ryan, 1995).

Self-Determination Theory

Facilitation of Intrinsic Motivation, Social Development and Well-Being

• <u>The Theory</u> (Centre for Self-Determination Theory)

- C.P Niemiec, R.M. Ryan (2009) <u>Autonomy, competence, and relatedness in the classroom.</u>
 Applying self-determination theory to educational practice
- L. Deci & R. M. Ryan (Eds.), <u>Handbook of self-determination research</u> (pp. 405–427). University of Rochester Press.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Deci, E. L., & Ryan, R. M. (2017) <u>Self-Determination Theory: Basic psychological needs in</u> motivation, development, and wellness
- Deci, E. L., & Ryan, R. M. (2000) <u>Self-Determination Theory and the Facilitation of Intrinsic</u> <u>Motivation, Social Development, and Well-Being</u> University of Rochester
- Howard JL, Bureau J, Guay F, Chong JXY, Ryan RM. <u>Student Motivation and Associated</u>
 <u>Outcomes: A Meta-Analysis From Self-Determination Theory</u>. Perspectives on Psychological Science. February 2021. doi:
- Barker, J. E., Semenov, A. D., Michaelson, L., Provan, L. S., Snyder, H. R., & Munakata, Y. 5/7 (2014). <u>Less-structured time in children's daily lives predicts self-directed executive functioning</u>. Frontiers in Psychology, 5, 593.
- Kohn, Alfie, <u>Punished by Rewards: The trouble with gold stars, incentive plans, A's, praise</u>
 and other bribes, Houghton Mifflin, 1993. Paperback with new Afterword, Houghton Mifflin,
 1999.

Interest and curiosity

The role of interest and curiosity are powerful drivers in the learning and development of our species. There is a wide body of literature addressing the question of human motivation, in humans generally and in children, on the role of interest, curiosity, exploration, drive for competence and mastery.

- Kidd C & Hayden BY (2015), The psychology and neuroscience of curiosity, Neuron 88.3
- Pelz M, Yung A & Kidd C (2015), <u>Quantifying curiosity and exploratory play on touchscreen</u> tablets, IDC 2015 Workshop on Digital Assessment and Promotion of Children's Curiosity
- Harackiewicz, Judith M and Hulleman, Chris (2010) <u>The Importance of Interest:</u> <u>The Role of Achievement Goals and Task Values in Promoting the Development of Interest</u>
- Alexander, Joyce & Johnson, Kathy & Leibham, Mary & Kelley, Ken. (2008). <u>The development of conceptual interests in young children</u>. Cognitive Development. 23. 324-334. 10.1016/j.cogdev.2007.11.004.

- Shah, P.E., Weeks, H.M., Richards, B. et al. (2018) <u>Early childhood curiosity and kindergarten</u> reading and math academic achievement. Pediatr Res **84**, 380–386
- Krapp, A. (2002). An educational-psychological theory of interest and its relation to SDT.
- White, R. (1959) <u>Motivation Reconsidered: The Concept of Competence</u>, Harvard, Psychological Review Vol. 66, No. S

Child development, cognition and play

There is also an extensive body of research from across different disciplines which helps us understand the above in the context of children, that children's natural development, their way of engaging with the world and their insatiable drive to play is all geared around learning. This work has been hugely important in reframing our understanding of babies and children's behaviour so that we can support these needs rather than try to change them. Self-directed education is based on this understanding, that children are naturally active and engaged learners and also that there are natural stages of learning, that as children grow older they move from early years of discovery to mastery learning.

Children's cognitive processes

- Kidd C, Piantadosi ST & Aslin RN (2012), <u>The Goldilocks Effect: Human infants allocate</u> attention to visual sequences that are neither too simple nor too complex,
- Gopnik, A. <u>Scientific Thinking in Young Children: Theoretical Advances, Empirical Research</u> and Policy Implications (2012)
- Bonawitz, E., Shafto, P., Gweon, H., Goodman, N. D., Spelke, E., Schulz, L. (2011). <u>The double-edged sword of pedagogy: Instruction limits spontaneous exploration and discovery</u>.
 Cognition
- Rachel W. Magid, Mark Sheskin, Laura E. Schulz, <u>Imagination and the generation of new ideas</u>, (Cognitive Development, Volume 34, 2015, Pages 99-110)
- Gopnik, A. (2017). <u>The Gardener and the Carpenter What the New Science of Child Development Tells Us about the Relationship between Parents and Children</u>. London: Vintage.

Children's learning and development gained through play and free exploration

- Goldstein, J (2012) <u>Literature review of 40 studies: Play in children's development, health and well-being</u>
- Whitebread, D. (2012). The Importance of Play.
- Claire Liu, S. Lynneth Solis, Hanne Jensen, Emily Hopkins, Dave Neale, Jennifer Zosh, Kathy Hirsh-Pasek, & David Whitebread (2017) White paper <u>Neuroscience and learning through</u> play: a review of the evidence

- Kathleen A. Roskos James F. Christie (2013) <u>Gaining Ground in Understanding the Play-</u> Literacy Relationships
- Frances Atherton and Cathy Nutbrown, <u>Understanding Schemas and Young Children: From</u>
 Birth to Three

Evidence of damage of accountability measures

- Hutchings (2015) <u>Exam Factories? The impact of accountability measures on children and young people</u>
- Emler TE, Zhao Y, Deng J, Yin D, Wang (2019) <u>Side Effects of Large-Scale Assessments in Education</u>. ECNU Review of Education.
- Harlen W, Deakin Crick R (2002) <u>A systematic review of the impact of summative assessment and tests on students' motivation for learning</u>
- Polesel (2013) <u>The impact of high-stakes testing on curriculum and pedagogy: a teacher perspective from Australia</u>
- Case et al (2010) <u>Please Show You're Working: A critical assessment of the impact of OFSTED inspection on primary teachers</u>
- Robert Holmes and Bradbury (2016) <u>Datafication of early years and impact on pedagogy</u>
- Carter (2020) <u>The Assessment has Become the Curriculum: Teachers' views on the Phonics</u> Screening Check in England

Self-Directed Education – built on the evidence

The evidence base above is rigorous and compelling. Being 'child led' is a factor in most home educators provision. For some families a child's freedom to follow what interests them and to not be coerced instead into studying what others choose is a philosophical conviction.

European Convention on Human rights, Protocol 1 Article 2. "In the exercise of any functions which it assumes in relation to education and to teaching, the State shall respect the right of parents to ensure such education and teaching in conformity with their own religious and philosophical convictions."

Parents or carers provide support in numerous ways, through conversation, doing things together, helping find solutions, opportunities, environments, settings, people and activities as their child or children want.

No one child's self-directed education looks exactly like another, as their interests are different so is their education, it is entirely personalised. Needs and provision will also change as children get older.

Structure. Self-directed learning does not mean without structure, only that the structure – whether this involve a timetable, classes, worksheets, courses – should not be imposed by anyone else. Sometimes – for some children or at some ages – educational provision may include lots of structure, classes, schedules and so on. Others may have none, or very little. Structured provision is not regarded as superior to other activities children choose.

Development. The rate of children's development looks different than within school – it is often not linear, incremental nor in subject silos as is expected in school. That does not mean that children who are self-directed are in any way 'behind'.

'Work' produced. There may or may not be physical products such as written work; sometimes the only result is the learner's greater understanding.

Subjects and body of knowledge. Self-directed education does not impose a body of knowledge on to learners nor dictate what they must study. There are certain skills which are integral to our culture, including mathematics and reading and writing. Some children may choose to do activities such as workbooks but for many these skills can be gained through different activities and processes. (See sections below.) Digital literacy is a skill which is vital to our specific culture and yet one which school education fails to deliver. While children and young people may decide to study school subjects, especially when older to undertake qualifications, often exploration and projects looks much more multi-disciplinary, crossing many different areas.

Qualifications. The majority of self-directed children and young people are likely to choose to do qualifications at some point as they are a requirement for numerous pathways. Children and young people are supported to do the qualifications which they want to do and which help them achieve their aims. This can include doing qualifications earlier or later than is the case in school, doing them at their own pace or choosing a different path. Attending colleges or university is entirely compatible with self-directed education so long as it is freely chosen.

• Arnall, Judy (2018) <u>Unschooling to University</u>

Literature on Self-Directed Education for school aged children

RILEY, Gina (Dr)

Educational psychologist, Clinical Professor, and Program Leader of the Adolescent Special Education Program at CUNY – Hunter College Dr Riley has both clinical and academic across fields of special education, psychology, school psychology, and mental health counselling. Dr Riley chose to unschool her own son and has carried out research into unschooling and the outcomes of unschooled young people.

<u>Unschooling: Exploring Learning Beyond the Classroom</u> (2020) Palgrave Macmillan

- GRAY, Peter (Professor) Research professor of psychology who has published research in neuroendocrinology, developmental psychology, anthropology and education. Gray specialises in the biological foundations of self-directed education, conditions which optimise children's abilities to learn and the harm of early academic focus. Gray also wrote an internationally acclaimed introductory psychology textbook, now in 8th edition.
 - His books on self-directed education are all available from major book retailers.

(2020) How Children Acquire "Academic" Skills Without Formal Instruction

(2020) Evidence that Self-Directed Education Works

(2020) The Harm of Coercive Schooling

(2020) Mother Nature's Pedagogy: Biological Foundations for Children's Self-Directed Education

(2013) Free to Learn: Why Unleashing the Instinct to Play Will Make Our Children Happier, More Self-Reliant, and Better Students for Life.

FISHER, Naomi (Dr) Clinical psychologist and expert in education otherwise than at school
with a First-Class Honours Degree in Experimental Psychology from Cambridge University, a
PhD in Developmental Cognitive Psychology and a Doctorate in Clinical Psychology, both
from Kings' College London. Fisher has also written and spoken widely on learning,
education, the school system and on children with diagnosis of special educational needs.

<u>Changing Our Minds: How children can take control of their own learning</u>

<u>School's Out</u> (The Psychologist, March 2020)

ACKOFF, Russel L (Professor Emeritus of Management Science) and GREENBERG, Daniel
 Ackoff - an influential organisational theorist in field of operations research, systems
 thinking and management science. Greenberg - former Columbia University physics
 professor and one of the founders of the self-directed Sudbury model.

Turning Learning Right Side Up: Putting Education Back on Track (2008)

• HARTKAMP, Peter Founder of three democratic schools in Holland and active on the Council of the European Democratic Education (EUDEC).

<u>Beyond Coercive Education</u>: A plea for the realisation of the rights of the child in education www.beyondcoerciveeducation.eu

HOLT, John Educator, thinker and author who wrote influential books on children's learning
in relation to the school system in the 1960s and was an early proponent of home education
and of unschooling.

How Children Fail
How Children Learn
Learning All the Time

- Alliance for Self-Directed Education <u>What is Self-Directed Education?</u>
- Self-Directed Education Resource Directory

SDE is a force for positive social change

• Fisher, N Becoming Yourself: Neurodiversity and Self-Directed Education

- Guglielmino, L. et al (2009) <u>Self-Directed Learners Change Our World: SDL As A Force For Innovation, Discovery and Social Change</u>, International Journal of Self-Directed Learning
- Richards, Akilah S <u>Raising Free People: Unschooling as Liberation and Healing Work</u> (2020)
- Matusov, Eugen (2020). <u>A student's right to freedom of education and a teacher's fiduciary obligation to support it: A reply to the commentaries.</u> Dialogic Pedagogy: An International Online Journal, 8, SF97-SF114.
- Black, Carol <u>Schooling the World</u>
- de Beer, J. editor (2019) <u>The decolonisation of the curriculum project: The affordances of indigenous knowledge for self-directed learning</u>
- Clegg, A <u>Children's rights to greater freedom and self-determination : a philosophical</u> appraisal of the ethics of autonomous education
- Graham Brett, Teresa (2011) <u>Parenting for Social Change: Transform Childhood, Transform the World</u>

How children learn specific skills

Mathematics

The way mathematics is taught in English schools, as a theoretical, discrete topic to be learnt in incremental blocks and then applied is not the only way that mathematical literacy can be acquired. Instead understanding and ability can be gained through real life experiences such as games, projects, activities, day to day life and understanding grow from the concrete examples to the overarching principles. This is how children learning in a self-directed way, even those that do not choose to do any workbooks or formal study, can build mathematical competence and literacy.

- Whitney (1987) <u>Coming Alive in School Math and Beyond</u>
- Boaler, J (2015) What's Math Got to Do With it?
- Humanistic Mathematics Journal (1987 2004)
- Journal of Humanistic Mathematics
- Lockhart, P <u>A Mathematician's lament</u>
- Realistic Mathematics Education
- Van den Heuvel-Panhuizen, M. and Drijvers, P (2014) <u>Realistic Mathematics Education</u> S. Lerman (ed.), Encyclopedia of Mathematics Education, DOI 10.1007/978-94-007-4978-8

 Yuanita P, Zulnaidi H, Zakaria E (2018) <u>The effectiveness of Realistic Mathematics Education</u> approach: The role of mathematical representation as mediator between mathematical <u>belief and problem solving.</u> PLoS ONE 13(9): e0204847.

Reading

Research shows that outside of formal schooling children learn to read in very different ways and with different levels of parental input or conscious effort. There is no set age at which children developmentally should be reading and there can be considerable variance. As children who are learning in a self-directed way have many different resources for accessing knowledge and new skills and are not so reliant on ability to read it is possible and beneficial to support them to read when the individual is interested and ready.

- Pattison, H <u>Rethinking Learning to Read</u>
- Riley, Gina (2018) <u>Exploring Unschoolers' Experiences in Learning to Read: How Reading Happens Within the Self-directed Learning Environment</u>, Journal of Unschooling and Alternative Learning 2018 Vol. 12 Issue 24 ISSN: 1916-8128
- Right Age to Read (Today's Parent, 2016)
- The Effect of Mandatory Reading Logs on Children's Motivation to Read, Sarah S. Pak
 Princeton University Allyson J. Weseley Roslyn High School (p251-262) (Journal of Research
 in Education 2012)
- Gray, P <u>How Dyslexic Kids Learn to Read When Removed From School</u> (Psychology Today, 2020)
 Gray, P <u>A Question and Survey about Dyslexia</u> (Psychology Today, 2020)
- Je'anna L Clements (2020) What if School Creates DYSlexia?
- What about Dsylexia in Self-Directed Education?

Digital literacy

Self-directed education includes a wide variety of resources, as chosen by the child or young person, including video games and other digital media, programmes and apps. Despite the pressing need for digital literacy - one which schools have so far failed to adequately respond to - there is widespread disapprobation of video games. Academic research into video gaming shows positive effects and there is work being done to incorporate video gaming into schooling in different ways.

Bradley J. Morris, Steve Croker, Corinne Zimmerman, Devin Gill and Connie Romig (2013)
 <u>Gaming science: the "Gamification" of scientific thinking</u> Frontiers in Psychology

- Green, C. S., Pouget, A., and Bavelier, D. (2010). <u>Improved probabilistic inference, as a general learning mechanism with action video games.</u> Curr. Biol. 20, 1573–15792. doi: 10.1016/j.cub.2010.07.040
- Habgood, MP Jacob and Ainsworth, Shaaron E <u>Motivating children to learn effectively:</u> exploring the value of intrinsic integration in educational games
- Literature review Palaus, M., et al (2017). Neural basis of video gaming: A systematic Review
 Frontiers of Human Neuroscience, 11, article 248.
 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5438999/
- Christian M Jones, et al (2014) <u>Gaming well: links between videogames and flourishing</u> mental health
- Videogames and Wellbeing: A Comprehensive Review (2013)
- McGonigal, J. (2012) <u>Reality is broken. Why games make us better and how they can change</u> the world.
- My disabled son's amazing gaming life in the World of Warcraft
- Parry, B (2021) <u>Playing in a Pandemic</u>

Self-Directed Learning

There is a body of research which examines self-directed approaches mostly in the context of higher education, known as Self-Directed Learning. It evidences and clarifies some of what is happening when learners follow self-directed approaches however the challenges and solutions are in some cases markedly different.

Differences

Much of the research in Self-Directed Learning is focused on adults who having been through formal education are more accustomed to that way of learning and who need to be actively given the skills to enable them to learn in a self-directed manner.

"According to Guglielmino (2008), being a self-directed student is the natural way to learn. As an example of this inherent disposition found in everyone, Guglielmino (2008) points to the activities of a young child discovering a new object. The child instinctively examines the item and explores its properties through taste, touch, sight and sound to learn as much as possible about the object. Although people are born with a natural drive to learn, for some people that drive evaporates, and learning beyond what is required for daily living is no longer actively sought (Hutto 2009). Although self-directedness is a quality that can be diminished, it can also be restored and further developed. The use of SDL techniques in an educational setting may be viewed as an attempt to replicate the natural way that people learn (Hutto 2009). "

Bosch, Chantelle, Chapter 1 *Self-directed learning: A conceptual overview* <u>Self-Directed</u> Learning for the 21st Century - Implications for Higher Education

Sometimes studies attempt to use SDL techniques when fundamental aspects of what is needed for self-directed study are absent – critically for example when students do not have freedom as to what they are to explore and lack the necessary drivers of interest, curiosity and cannot be said to be autonomous in any meaningful way.

Self-Directed Education also includes the possibility that at some points directed teacher led activities might be what is required by the child or learner.

Of relevance

There is much within the research which breaks down the process, providing further insight into how self-directed education works and in particular makes clear just why the skills are so valuable and should be cultivated.

The following publications have been selected because they provide a substantive overview of the themes and theses in self-directed learning, the basic principles, including recognition that children naturally learn in this way. The following includes literature reviews plus evaluations of all the results from studies. The work of Ian Cunningham has been included as an example of the crossover of SDE and SDL. The Self-Managed Learning College provides education for young people who have had negative experiences within formal education and also young people who have always been educated in a self-directed way.

- Cunningham, I (2020) Self-Managed Learning and the New Educational Paradigm
- Self-Directed Learning for the 21st Century Implications for Higher Education (2019)
- <u>International Journal of Self-Directed Learning v4 no2</u>, (2007) Editors Guglielmino, L. and Long, H.
- Duckworth et al. Self-Regulated Learning: A Literature Review: DCSF website

Self-directed education in settings

The opportunities for self-directed learning are also provided by some 'schools', learning communities and settings. These settings have provided academics with greater opportunity to research process and outcomes.

- Agile Learning Centers, Liberated Learners, and Sudbury Schools: What's the Difference?

 An exploration of three popular models for supporting self-directed learners.
- <u>Summerhill School</u> (Suffolk, UK)
 The school was founded by A.S, Neill in 1921, it is now run by his daughter, Zoe Readhead. In 2000 the <u>school won a legal battle against the Department for Education Summerhill Review</u> (Which School Advisor, 2021)

 <u>Summerhill: A Follow Up Study of Its Students</u> Bernstein, Emmanuel, 1968
- <u>Sudbury Valley School</u> (US)
 The school was founded in 1968, there are now approximately 60 schools worldwide using

the Sudbury model

<u>Literature, talks and resources available on the Sudbury model and experience.</u>

Traxler, C. (2015). *The most democratic school of them all: Why the Sudbury model of education should be taken seriously.* Schools: Studies in Education

- <u>East Kent Sudbury</u> (Dover, UK)
- <u>Self Managed Learning College</u> (Brighton, UK)
- Derry Hannam (2020) <u>Another way is possible Becoming a Democratic Teacher in a State School</u>

Conferences and interviews

ALLI youtube channel
FHREE youtube channel
www.freetolearnluxembourg.eu