



Systemic threats to the Growth Mindset: classroom experiences of agency among children designated as 'lower-attaining'

Journal:	<i>Cambridge Journal of Education</i>
Manuscript ID	CCJE-2020-0046.R1
Manuscript Type:	Original Article
Keywords:	low-attaining, primary schooling, life-history, longitudinal, agency

SCHOLARONE™
Manuscripts

Systemic threats to the Growth Mindset: classroom experiences of agency among children designated as 'lower-attaining'

Abstract

In this paper, we consider how Carol Dweck's concept of Growth Mindset has been misconceptualised. We explore the proposition that agency is an important aspect of Growth Mindset; and that the effects of hard work by children is reduced when agency is limited. We draw on qualitative data from 84 interviews with 23 participant children who had been designated at the end of their Year 3 as 'lower-attainers' in mathematics/English or both. We explore their experiences of this designation across the first two years of the five-year project. Our findings suggested that participants displayed ample capacity for action, curiosity, engagement and creative learning. However, classroom rules sometimes mitigated against children benefiting from these capacities. Children narrated adopting the performance orientation suggested by Dweck, which could lead to a reduced sense of competence, which itself led to less agentic classroom behaviours.

Carol Dweck and the Growth Mindset

Carol Dweck is well-known among both academics and educators for her 'growth mindset' theory, which our experience suggests was widely disseminated in primary-schools in England during the early 2000s. It seems to have left a deep impact on schools, challenging long-held beliefs that children are born with innate 'ability'. Dweck's seminal work *Mindset* (2006), drawing on earlier psychological research (e.g. Dweck and Leggett, 1988; Elliot and Dweck, 1988), explained 'why it's not just our abilities and talent that bring us success, but whether we approach our goals with a fixed or growth mindset' (back cover). She clarifies

1
2
3 that, 'with the right mindset and the right teaching, people are capable of a lot more than
4 we think' (p.64). This approach seems to have led to emphasis on children's effort rather
5 than only innate 'ability' (although definitions of ability are anyway open to dispute). The
6 negative impact of deterministic discourses of learning on certain children had been
7 highlighted by many educators in the past sixty years (e.g., Jackson, 1968; Ireson and
8 Hallam, 2001; Hart et al., 2004). More recently, Francis et al. (2019), among others, have
9 looked explicitly into the practice of grouping by attainment in England's schools and have
10 demonstrated how this practice might particularly inhibit the learning of children
11 designated as having lower-attainment. Some primary-schools appear to have interpreted
12 Dweck's theories as suggesting that children who struggle at school simply need to work
13 harder, in order to attain the system's goals. In 2017, Dweck reflected on how her theories
14 had been misconceptualised within schooling:

15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33 1) *Misconception 1: growth mindset means being open-minded.* Rather, Dweck explains, the
34 concept of growth mindset refers to the proactive process of 'the hard work of cultivating'
35 one's own or others' talents by embracing and working through challenges.

36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
2) *Misconception 2: growth mindset is about children's effort, especially praising effort,*
without necessarily linking effort to its outcomes. Dweck insists that effort must be linked
to *outcomes* in both the teacher's and the child's mind. When a child does not meet her/his
goal, teachers and the child together need to think creatively why effort has not been
effective, and choose new strategies, resources or other people's support to improve
learning.

3) *Misconception 3: growth mindset means believing that everyone can achieve any goals,*
without making reference to what kind of goals they achieve. Dweck suggests in contrast

1
2
3 that, growth mindset only applies when an individual has embraced a goal as worth
4
5 pursuing as a *learning goal* (Dweck, 2017, pp.215-6).
6
7

8 In our own observations of classrooms (Authors), we have been struck by children's almost
9
10 ubiquitous belief that if they work hard and exert effort they will be successful in school,
11
12 achieve good qualifications, and ultimately find satisfying, well-paid jobs. It seems that their
13
14 teachers have tried to pass on the growth mindset. The problem is, as Dweck herself
15
16 identifies:
17
18
19

20
21 In this era of high-stakes testing, much teaching emphasises memorization of facts,
22
23 rules, and procedures to 'insure' that students do well on the all-important tests...
24
25

26 This may promote more fixed mindsets and perhaps, ironically, undermine students'
27
28 performance on these very tests. There is nothing like deep learning to insure good
29
30 outcomes (2017, p.220).
31
32
33

34 It is this 'deep learning' that is of particular interest to us in this article. Deep learning
35
36 implies grappling with challenging concepts or ideas in order better to understand and
37
38 interact with one's world and people within it (Vygotsky, 1962). Deep learning relates to a
39
40 desire to understand concepts, practices and ideas in more sophisticated ways, linking to
41
42 those already tackled in prior learning; to construct new meanings and new ways of
43
44 behaving on the basis of these. It will often entail interacting with others in order to come
45
46 to this more complex understanding. In these senses, 'deep learning' may also be defined
47
48 as 'creative learning', because agentic energy and dynamic cognitive effort are demanded.
49
50
51 Creativity relates to divergence of thought and openness to experience (Furnham and
52
53 Bachtiar, 2008) and is antithetical to external regulation (Policastro and Gardner, 1999).
54
55
56 Osche (in Howard-Jones, 2002) described creativity as 'bringing something into being that is
57
58
59
60

1
2
3 original (new, unusual, novel, unexpected) and also valuable (useful, good, mastery-
4 oriented, appropriate)' (p.216). When learning entails these characteristics, it can be seen as
5
6 deep or creative.
7
8
9

10
11 The key to deep or creative learning is motivation, including a sense of one's own agency in
12 achieving one's goals, as well as belief in one's own competence to achieve them (Ryan and
13 Deci, 2000). In 1988, Carol Dweck with Ellen Leggett presented findings from earlier studies
14 into motivation. They referred to the *helpless* pattern and the *mastery-oriented* pattern,
15 the first of which relates most to *performance* and the latter to deep *learning*:

22
23 The helpless pattern... is characterized by an avoidance of challenge and a
24 deterioration of performance in the face of obstacles. The mastery-oriented pattern,
25 in contrast, involves the seeking of challenging tasks and the maintenance of
26 effective striving under failure (p.256).
27
28
29
30
31
32

33
34 Dweck and Leggett explain that some people perceived their goals as *performance goals*
35 while others pursued *learning goals*. Performance goals were concerned with individuals
36 trying to gain favourable judgements about their competence by *proving* it to others, mainly
37 driven by external motivations. Learning goals related to individuals seeking to *improve*
38 their competence, seeking improvement for their own satisfaction and thus driven mainly
39 by intrinsic motivation. Dweck and Leggett considered striving towards *learning goals* as
40 important because 'enjoyment of challenge and willingness to sustain engagement with
41 difficult tasks ... must maximise attainments in the long run (p.257)'. They add, significantly:
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
'Of course, individuals need to be able to gauge when tasks *should* be avoided or
abandoned (ibid.)'.

1
2
3 Dweck and Leggett's paper (1988) also refers to Dweck and Elliot's (1988) observation that
4 when *learning goals* were emphasised, then learners were less likely to take account of their
5
6 prior attainment or 'ability' as they tackled a task. On the other hand, when performance
7
8 goals were promoted, because these specifically highlighted attainment and prior
9
10 performance, they led lower-attaining children to adopt a helpless rather than mastery-
11
12 oriented achievement pattern. They concluded:
13
14
15

16
17
18 The great majority of children in the evaluation-oriented condition [ie *performance*
19
20 *goals*] sacrificed altogether the opportunity for new learning that involved a display
21
22 of errors or confusion (ibid., p.259).
23
24
25

26 They therein highlighted the threats presented to the growth mindset by a systemic culture
27
28 which focuses more on performance than learning. These findings suggest that when lower-
29
30 attaining primary-school-children are presented with the kind of goals distinctive of a
31
32 performativity culture (ie judgements, comparisons, rewards, sanctions; see Ball, 2003),
33
34 they are more likely than their higher-attaining peers to adopt a helpless approach. In
35
36 contrast, when a child's confidence in their competence is already high, such performance
37
38 goals produce mastery-oriented behaviour which has undoubtedly 'fuelled many great
39
40 achievements (p.260)'. Our investigation is directed towards experiences of lower-attaining
41
42 children in schooling cultures dominated by performativity. Unfortunately, even where
43
44 grouping by attainment ('ability' grouping) has been abandoned, the performative system
45
46 reinforces the idea of children positioned on a descending scale of attainments which also
47
48 represents their descending value to the school (Authors). In this paper, we explore how
49
50 these children experience agency, beliefs about their competence and the influence of both
51
52
53
54
55
56
57
58
59
60

1
2
3 of these on the development of a growth mindset, or determination to pursue deep,
4
5 creative learning.
6
7

8 **Agency**

9
10
11 The purpose of exploring these psychological theories, despite the sociological leaning of
12
13 our research, is to highlight their potential impact on the current and future learning of
14
15 substantial proportions of school populations. In particular, we focus on children's agency,
16
17 because agency feeds both creative learning and well-being. Helwig (2006) describes agency
18
19 as an essential aspect of the human propensity for curiosity and creativity which are also
20
21 bases for human well-being. Giddens (1984) emphasises agency as providing opportunities
22
23 to 'make a difference' or exercise 'some sort of power' (p. 14). Yet in primary-schools,
24
25 children have few opportunities for making a difference or exercising power. We ask how
26
27 restricted agency influences their capacity to learn in creative, meaningful ways at school. In
28
29 particular, we explore influences that relate especially to the sense of competence
30
31 experienced by children who have been designated by the schooling system as 'lower-
32
33 attaining' or as attaining 'below expectations'.
34
35
36
37
38
39
40

41 **The role of agency in creative, meaningful learning**

42
43
44 Vygotsky (1962) stressed that the teacher aided the child to develop as a person in society,
45
46 willing and able to experiment with the knowledge they were grappling with, to make it
47
48 personally meaningful and to connect it to previous knowledge. Piaget (1964) emphasized
49
50 that the child made their own sense of their surroundings and continually added to the
51
52 sophistication of meanings they made. Such autonomy is a manifestation of agency
53
54 (Bandura, 1989) and includes the following:
55
56
57
58
59
60

1
2
3 The capacity to make decisions and to exercise control over important areas of one's
4 life (Ryan and Deci, 2000). Autonomy ... related to the development of a sense of
5 self and as assisting in the construction of a personal identity (Helwig, 2006, p.459).
6
7
8
9

10
11 In their internationally-tested theory of Self-Determination, Ryan and Deci (2000) made a
12 critical distinction between:
13
14

- 15
16 1) behaviours that are volitional and accompanied by the experience of freedom and
17 autonomy ie those that emanate from one's sense of self; and
18
19
- 20
21 2) behaviours that are accompanied by the experience of pressure and control and are
22 not representative of one's self (p.65).
23
24
25
26

27 Chirkov (2009) claimed that across a range of cultures:
28
29

30 Autonomy support from teachers and parents has been associated with ... high
31 academic outcomes, better psychological well-being, few problem behaviours, high
32 self-esteem, less dropping out, and strong persistence in educational settings
33 (p.257).
34
35
36
37
38
39

40 Helwig (2006) emphasised the negative psychological effects associated with others' over-
41 control of the personal domain, especially over children's bodies, appearance, friends, food
42 and recreation. Negative effects included lowering of achievement scores at school as well
43 as lack of general well-being (2006, p.466). In order to feel autonomous and draw on one's
44 agency, Jang, Kim and Reeve's research (2012) suggested that children in the classroom
45 need to believe and feel that the teacher responsively supports their challenging journey
46 towards meeting meaningful goals. However, as Ryan, Deci and colleagues found in widely
47 varying contexts (Chirkov, 2009; Helwig, 2006; Sheldon, Abad, and Omoile, 2009), agency is
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 *essential but not sufficient* for creative learning. Most crucially, Niemiec and Ryan (2009)
4
5
6 claimed that:

7
8 Feelings of competence will not enhance intrinsic motivation unless they are
9
10 accompanied by a sense of autonomy or, in attributional terms, by an internal
11
12 perceived locus of causality (p.58).
13
14

15
16 The child who experiences a sense of autonomy in the classroom, reflecting agency, *must*
17
18 *already believe that they have competence* in order to draw effectively on that agency.

19
20 Drawing effectively on agency is a key ingredient for creative, meaningful learning. (Self-
21
22 Determination states that a sense of relatedness is also indispensable). Our research sought
23
24 to explore how competence and agency interrelated in the deep learning of children in our
25
26 sample who had already been designated as lacking in competence.
27
28
29

30 31 **The significance of exploring competence and agency in schooling**

32
33 From our sociological perspective, agency is seen in the context of explicit purposes for
34
35 schooling (Schiro, 2013). If the purpose of schooling is enhancing all people's well-being and
36
37 social interactions in the world which demands individuals exercising agency (Fielding, 1996;
38
39 Freire, 1972), then it is important to explore threats that schooling presents to agency.
40
41

42
43 Political discourses often emphasise the need to bridge the gap between privileged and
44
45 disadvantaged sectors of society. Attending to the interplay of competence and agency in
46
47 the classroom is one route to confronting such injustice. Dominant goals for schooling in
48
49 England tally well with the global culture of performativity (see

50
51 <https://www.gov.uk/government/organisations/department-for-education/about>). To use
52
53 Ball's (2003) words, by performativity we mean:
54
55
56
57
58
59
60

1
2
3 A technology, a culture and a mode of regulation that employs judgements,
4
5 comparisons and displays as means of incentive, control, attrition and change based
6
7 on rewards and sanctions (both material and symbolic). The performances (of
8
9 individual subjects or organizations) serve as measures of productivity or output
10
11
12
13 (p.216).
14
15

16 This culture of performativity is likely to direct children's energies towards *performance*
17
18 *goals* in schools, rather than on mastery of personally meaningful skills and knowledge, in
19
20 *learning goals*. This article seeks not to prove or disprove psychological theories but to
21
22 illustrate their day-to-day operation within classrooms, and implications for a just global
23
24 society. Our research questions were:
25
26

- 27
28
29 ■ How do children designated as lower-attaining describe opportunities to express
30
31 agency at school?
- 32
33
34 ■ How does their sense of competence relate to agency and therefore to adoption of a
35
36 *performance or learning orientation*?

37 38 39 **Research design**

40 41 42 ***Methodology***

43
44
45 Our research took the form of life-histories in a five-year longitudinal study of 23 school-
46
47 children from Year 3 (aged 7-8) to Year 7 (aged 11-12) (C.L.I.P.S). Funded by the Leverhulme
48
49 Trust, the project's long-term goal is to construct with each child their school-life history as
50
51 described by Goodson and Sykes (2016), exploring how their designation as 'lower-attaining'
52
53 influences their orientations to learning and schooling. Plummer (2001) proposed that life
54
55 histories reveal the depth and complexity of human experiences, of power, and of other
56
57 social dynamics, enabling the researcher to consider multiple levels of the phenomenon
58
59
60

1
2
3 under investigation. This same methodological approach allows us to investigate in great
4
5 detail how schooling is experienced by diverse individuals. Our interpretivist stance means
6
7 that we do not look for an external truth but accept that each narrative is the child's version
8
9 of the truth.
10
11

12 13 **Research design**

14 15 *Sample*

16
17 We gained access to two inner-city London schools, in addition to one suburban academy
18
19 near London and one rural school outside London. All the schools had relatively
20
21 disadvantaged demographics, had been assessed as good or outstanding by Ofsted and had
22
23 at least two classes in each year group. We asked each school to invite six pupils to
24
25 participate, whom they identified as lower-attainers in terms of mathematics and/or
26
27 writing. We excluded children with a state-funded designation as having a learning disability
28
29 (Education and Health Care Plan). One child in our sample moved away, leaving 23 out of
30
31 our original 24 children. By the end of the second year, our 23 children were attending
32
33 seven schools as children moved schools. There were 11 boys and 12 girls; nine had Pupil
34
35 Premium status, indicating socio-economic disadvantage; nine could be classified as white
36
37 British while the remaining 14 identified as Bangladeshi, Black African, Black Caribbean,
38
39 Brazilian, Czech, Turkish, Moroccan, Spanish or a combination. In our first meeting with
40
41 them, they chose a 'secret' name, which became their permanent pseudonym.
42
43
44
45
46
47
48
49

50
51 This paper draws on data collected up to the the end of the fifth visits of the project during
52
53 its second year. Our writing therefore addresses data from VISIT01 to VISIT05, starting from
54
55 the term in which the children were at the end of school Year 3, covering the time up to the
56
57 end of the first term of their Year 5 school year.
58
59
60

Instruments

We developed a range of child-friendly data collection activities that were simultaneously productive in data and enjoyable for children. Altogether, we carried out 84 interviews of 60-90 minutes each. We conducted 22 interviews with two or three children at a time; and 62 individual interviews. Initially we had planned to carry out all interviews with pairs of children but after our first round of paired interviews, we decided that individual interviews would normally provoke richer data. However, solely during VISIT05, we reintroduced some paired interviews at the children's request. In most cases, we also carried out a classroom observation for each child. We observed the child in class and noted down their actions and expressions during 20 minutes of the session. The interviews were carried out in private spaces that schools provided. The initial interviews with two or three children at a time allowed us to become familiar with the children while they had the security of peers to support them. In all interviews, we made sure that the children wished to be there and where appropriate, we provided refreshments to create a sociable atmosphere. All interviews were audio-recorded and sent for transcription using secure transfer systems.

Analysis

Initially we analysed our transcripts using pen and paper. As a team of three, we developed codes inductively for eight pupils each; then discussed and refined codes collaboratively. We fed all our second visit's data into securely-saved NVivo11 files and applied the codes we had previously agreed to the new data-set. As we coded, we constructed new codes inductively, which we discussed until we were all satisfied with our list, at which point we re-coded all interview transcripts from summer 2018 [VISIT01]. We followed the same procedure, this time exclusively using NVivo, for terms 1, 2 and 3, 2019 [VISIT03-05]. At the

1
2
3 end of five terms, we were then able to print out reports for all children for 42 codes from
4
5 84 interviews. For this current paper, we drew primarily on data labelled under the
6
7 following emergent codes: conformity; resistance; resilience; sense of voice; beliefs about
8
9 success/failure; rewards/sanctions; expressions of competence/incompetence; views of the
10
11 'top'/'bottom' of the class; and lessons as boring/engaging.
12
13
14
15

16 ***Ethics***

17
18 We followed British Sociological Association guidance on ethical procedures and had
19
20 clearance from UCL Institute of Education Ethics Committee. We were engaging with very
21
22 young people who could be vulnerable. Therefore, firstly, we gained pupils' verbal and
23
24 written consent and emphasised that the process was voluntary and they could leave any
25
26 time. We explained in writing and verbally what the project would entail. We shared this
27
28 with parents and gained parents' and pupils' consent at repeated intervals. Secondly, we
29
30 were investigating a sensitive topic which needed to be handled delicately. We did not wish
31
32 to cause harm by hurting feelings. We therefore found ways of explaining why children had
33
34 been chosen, without suggesting that children lacked talent. Thirdly, we were inviting
35
36 children to reflect on and critique the institution of schooling, which was potentially
37
38 provocative for schools or policy-makers. We therefore had to ensure that participants were
39
40 completely convinced of the privacy and anonymity of interview data, both of which we
41
42 strove to maintain with the greatest rigour.
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

FINDINGS

Children's experiences of agency manifested in activity, curiosity, engagement and learning

From observations and interview comments or actions, we perceived that some of the 23 children were intrinsically motivated to learn, and adopted a *learning orientation*. This suggested that they had chosen to adopt the school's goals as their own or adapted their own goals to the school's (Ryan and Deci, 2000). Rosie, for example, demonstrated her agency when she told us that while waiting for help from her teacher in class, 'I carry on thinking, but I also put my hand up until she comes' [VISIT02]. Rosie was quiet and compliant yet her actions suggested that she fostered a *learning orientation*. For example, she put herself forward as school council representative and had to draft a speech to justify herself. Other children sometimes displayed this *mastery approach* within classroom learning, where they seemed fully engaged and eager to know and understand more about a topic in class. For example, Anna, JohnWick and Bob found it inspiring to learn about the Black Death when they entered Year 5 [VISIT05].

At other times, however, the children seemed to encounter a chasm between their own learning goals and those assumed within schooling. This finding may reflect Dweck's (2017) description of performative-oriented children: 'Somewhere along the line, [their] intelligence became disconnected from [their] schooling' (p.59). Because of the system's emphasis on writing and mathematics, they perhaps felt that their own *learning goals* could not be integrated into school. For example, Anna loved drawing but she admitted: '[The teachers] don't know how good I am at drawing . . . because I don't really feel like I have to show my true drawings or identity to the school [Anna, VISIT03]. Similarly, Ben was passionate and

1
2
3 knowledgeable about deadly animals but noted that the school as an institution ‘wouldn’t
4 know how good I know about animals.’ [Ben, VISIT03] Max was seen enthusiastically
5
6 volunteering sophisticated information about astronomy during a lesson on space, but no-
7
8 one in class was paying attention [Max, VISIT02]. Ryan described wanting to learn French,
9
10 but missing out completely on learning French, because he was being taken out to study
11
12 mathematics. He was anyway studying Russian by himself at home [Ryan, VISIT02].
13
14
15
16
17

18 Children described *learning goals* they pursued outside school, for example, being good at
19
20 sports [Neymar, VISIT01]; being funny, fun, kind or loving [Anna, VISIT03; Bella, VISIT03;
21
22 Britney, VISIT01; Chrystal, VISIT03]. Bella notably prioritised health and family over her
23
24 attainments at school. In brief, among our 23 participants, all chosen for being below the
25
26 norm in relation to either mathematics or writing (or both), there was expertise in several
27
28 sports, knowledge of other languages, cultures and countries, knowledge of animals and
29
30 nature, expertise in computers and several artists. The children demonstrated the
31
32 competence and agency to pursue these *learning goals* successfully, but appeared to
33
34 perceive them as distinct from the schooling system’s *performance goals*. These did not
35
36 always appear to them as worthwhile or achievable goals to pursue and master in their own
37
38 right. These findings illustrated the fluidity of their identities and how different contexts
39
40 allowed them to draw differently on their agency. However, we note that agency is not
41
42 measurable and some behaviours may include aspects of agency, even when agency is
43
44 restricted.
45
46
47
48
49
50
51
52

53 **Children’s experiences of restrictions to their sense of agency in the classroom**

54

55
56 Britney [VISIT04] told us: ‘It’s like someone telling me to do something, and I don’t want to
57
58 do it because it’s boring – but I have to do it because if I don’t do it I would get in trouble.’ In
59
60

1
2
3 other words, her motivation for such learning was extrinsic and her own sense of agency
4 restricted. Anna was 'joyful' outside class but bored within; Summer was chatty at home, but
5
6 silent in class; Ben described himself as normally 'energetic' and 'adventurous' as a person,
7
8 but in class he did not ask questions [VISIT03]. Despite the children's obvious capacity for
9
10 agentic thinking and acting, nearly all the children emphasised the primary importance of
11
12 conforming to agency-restricting classroom rules; in particular, listening rather than talking;
13
14 holding one's body in fixed ways rather than comfortably; and working hard rather than
15
16 working creatively. Some of these examples illustrate that actually agency was used
17
18 productively *in order* to restrict unhelpful behaviour.
19
20
21
22
23
24
25

26 ***The children were instructed to keep quiet and listen to the teacher***

27
28 The children seemed to accept that the key to school success was listening. Learning by
29
30 listening suggested that learning meant 'being taught' (Watkins, 2005) rather than making
31
32 their own sense of surroundings, continually interacting with others to add sophistication to
33
34 meanings they made. They rarely if ever mentioned to us about the need to interact with
35
36 peers to express ideas or misconceptions. They seldom mentioned the teacher listening to
37
38 *their* needs or encouraging them to ask questions (Jang et al, 2012). Instead, some were
39
40 eager to show us how well-behaved they were. For example, Dragon recognised thankfully
41
42 that his ADHD medicine had made him 'a bit more good' [VISIT03]. Ben saw the advantage of
43
44 being very shy, as he appeared to be always listening and was never disruptive [VISIT03].
45
46
47 Landon suggested that when a child like him finds it hard to listen, he needs discipline to
48
49 coerce him to work hard, 'He has to go to detention ... So he can listen' [VISIT02]. While of
50
51 course listening to the teacher is important when s/he is explaining a new concept or giving
52
53
54
55
56
57
58
59
60

1
2
3 instructions, children in our sample appeared to consider being quiet and listening to the
4
5 teacher almost as goals in themselves despite the threats they posed to their use of agency.
6
7

8
9 ***The children's bodies were restricted in class***

10
11 Jang, Kim and Reeve's research (2012) suggested that to enjoy autonomy, children in the
12
13 classroom needed to feel that their teacher provided them with choices. However, in our
14
15 project, it was common for children to be told where to sit rather than asked where they
16
17 would work best. The child's preference was rarely considered. Jeff [VISIT03] told us that he
18
19 was paired in class with another child, Finlay, whom Jeff described as the one person in
20
21 school he really did not like because he talked too much in lessons. Jeff told us, 'I always
22
23 listen to the teacher.... And Finlay is just 'blah blah blah''. Despite listening hard and trying
24
25 hard, Jeff's agency was threatened by being placed in a detrimental position.
26
27
28
29

30
31 JohnWick enjoyed shouting, 'No teacher: party! ... No rules for us!' suggesting that teachers
32
33 were associated with restrictions in his view. During our interview role-play of a classroom
34
35 using the dolls-house and small animals, most children chose the giant tarantula when asked
36
37 which animal best represented the teacher, suggesting a negative and slightly scary image.
38
39 Dragon found frustrating the teaching assistant who sat with him. He explained how he was
40
41 feeling:
42
43
44
45

46
47 Yeah... I was thinking 'You get out of here, I hate you'... I say it in my head... I'm
48
49 thinking like 'Shoo off' [VISIT01].
50

51
52 Similarly, during VISIT01, Alvin explained his sense of frustration with the teacher's attempts
53
54 to help him:
55

56
57 I'm trying my best but [Teacher] said every time to *draw* it. ... I want to try it like *I*
58
59 *want*, [but] he keeps saying that I need to try it like *that*.
60

1
2
3 Sometimes teachers prescribed how the children held their bodies, even when this
4 threatened their agency. Several children mentioned finding it difficult to learn when sitting
5 on the floor. Similarly, teachers of two different children in different schools, admonished
6 them for 'not concentrating' because they were not looking towards the front of class. Both
7 children complained that they were concentrating, just looking a different way [Ben,
8 VISIT05; Ryan, VISIT04]. Such feelings are signs that creative learning is unlikely to occur,
9 despite the best intentions of the teaching staff.

10
11
12
13
14
15
16
17
18
19
20
21 ***Children described needing to work hard at all times, regardless of achieving goals***

22
23 Dweck and Leggett refer to 'enjoyment of challenge and willingness to sustain engagement'
24 as being important for maximising attainments in the long run; however, 'individuals need
25 to be able to gauge when tasks *should* be avoided or abandoned (1988, p.257)'. The
26 children in our project tended to believe that it was the hard work itself that led to success,
27 whether or not any signs of success were evident. Bob [VISIT03], for example, prescribed
28 more hard work for a classmate for whom current arrangements had so far evidently failed:
29
30
31
32
33
34
35
36
37
38

39 Bob: Let her stay for her whole lunchtime... because that's one hour... Work!

40
41 The children also seemed to share the other misconception expressed by Dweck (2017), that
42 everyone can ultimately achieve any goals. They did not differentiate between different
43 *kinds of goals* or question what strategies, resources or other people's support might be
44 necessary to make the learning process one of 'enjoyment of challenge and willingness to
45 sustain engagement'. Jeff declared that anyone could be successful if they tried hard. Then
46 he told us that he himself tried hard. He did not note any contradiction between his own
47 attempts and his frequent lack of success in writing and maths [VISIT03]. We wondered at
48 which point he and his teachers might decide that 'tasks *should* be avoided or abandoned'
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 because the current strategies and resources were not linking his efforts to evident success.
4
5 His own narratives suggested that he had not introjected school goals as his own *learning*
6
7 *goals* but focused on the short-term goals of good listening and trying hard. With regards to
8
9 school work, he aimed to complete this as fast and painlessly as possible [VISIT05].
10
11
12

13 Ben, in contrast, recognised that he was praised for working hard; but also perceived that he
14
15 did not understand most of what was being taught and never achieved high marks at school
16
17 [VISIT05]. He continued to try hard; and continued to feel 'dumb'. His own espoused
18
19 *learning goals* seemed to exist in parallel with schooling's goals, as he showed extensive
20
21 interest and knowledge about the natural world outside of school. A question we had about
22
23 Ben was, given the evidence of his creative, sophisticated learning in his alternative areas of
24
25 interest, was it appropriate to keep 'trying hard' to reach schooling goals that repeatedly
26
27 eluded him?
28
29
30
31

32 33 **The expression of agency through resistance to restrictions**

34
35
36 There were other ways in which we perceived that children exercised agency within school,
37
38 not always in productive directions. Displays of frustration were one sign of a child acting on
39
40 their agency and pursuing their own goals, often in defiance of social norms. Zack narrated to
41
42 us about his displays of anger, but he saw these as useful to him, as he believed that this
43
44 made some children 'scared of me' [VISIT02]. Chrystal [VISIT02] told us that some people
45
46 thought she was rude. She added, 'I'm not really rude, it's just that *I'm standing up for*
47
48 *myself*'. While such comments perhaps suggested the vulnerability and isolation of these
49
50 lower-attaining children, they also demonstrated their determination to defend themselves
51
52 and not simply comply with what others wanted.
53
54
55
56
57
58
59
60

1
2
3 Jerry was perhaps the least afraid of pursuing his own actions against the restrictions of the
4
5 teachers. From VISIT01 he admitted that he often shouted out in class because he was bored
6
7 of waiting. Once, he called out: 'Can I go and explore, because this is too boring'. He added: 'I
8
9 was made to stay in for lunch and breaktime'. When we observed Jerry in class, he pretended
10
11 to have finished reading his book when actually he had not, attaining undeserved praise from
12
13 the teacher. By pursuing his own alternative agenda through deception, these children could
14
15 be identified as pursuing 'anti-conformity' or 'deviant' behaviours (Pollard and Filer, 1999,
16
17 p.297), but perhaps the exercise of agency that these demanded was satisfying in its own
18
19 right.
20
21
22
23
24

25 Ryan explicitly explained to us during VISIT01 that to be successful as a person, one should
26
27 'think what's right for yourself. Don't copy other people'. When asked to draw his self-
28
29 portrait, he surprised us by choosing to present himself as an old man in the future because
30
31 this idea 'popped up in my head' [VISIT03]. When Ryan made a mistake or gave a wrong
32
33 answer, he was not ashamed but wanted to tackle it and master it for himself. He found it
34
35 annoying when the teacher asked other people to help him [VISIT02]. In Pollard and Filer's
36
37 terms, these could be described as 'non-conformist' behaviours that could also be satisfying in
38
39 their own right as they accommodated an exercise of agency.
40
41
42
43
44

45 Other children seemed to hide their frustrations 'behind a veil of compliance' (Fisher, 2011).
46
47 They did not behave deviantly or in non-conformist ways but they felt the anger inside,
48
49 rebelling against it in their own quiet ways. Ben [VISIT05] among others explained how he was
50
51 not allowed to complain, even when a punishment was unfair, for fear of another minute
52
53 being deducted from his playtime as punishment. Summer [VISIT02] told us, in relation to
54
55
56
57
58
59
60

1
2
3 restrictions around personal aspects of autonomy (Helwig, 2006), such as food, drink and
4
5 going to the toilet:
6
7

8 I hate school because, like when I want a drink I can't go off and just get a drink, I've
9
10 got to ask the teacher- sometimes they say no. And ... I can't go to the toilet... I'm
11
12 like 'Oh my God I can't hold it in'.
13
14
15

16 In VISIT04 she acted out an imaginary scenario in which the learner makes it clear to the
17
18 teacher that she does not want to do a maths test, but the teacher makes her do it:
19
20

21 Summer, being a pupil: Oh I don't like maths, I don't want a maths test...

22 Summer, being a teacher: Well you have to, or you get sent out.

23
24
25 Interviewer Laura: Oh! What does she do now?
26
27

28 Summer, describing the pupil: She's shocked, and she goes back in her seat...
29
30
31

32 Ryan and Deci (2000) made a distinction between behaviours that were volitional and
33
34 accompanied by the experience of freedom and autonomy ie emanating from one's sense of
35
36 self; and behaviours that were accompanied by the experience of pressure and control
37
38 which were not representative of one's self (p.65). In all the above cases, the children
39
40 appear to be carving out for themselves a sense of freedom and autonomy, even internally
41
42 in their minds, because of the pressure and control that they were resisting. These
43
44 expressions of agency in alternative contexts may however have worked against their
45
46 mastery of classroom *learning goals*.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Children's adoption of a *performance orientation*

Fear is a dominant feature within cultures of performativity. Fear drives people towards actions to relieve their fear (Fisher, 2011; Holt, 1964). For the children we worked with, fear of appearing or feeling 'dumb' was exacerbated by children's fear of reprimand by those who judged them. Fear about punishments seemed stronger than fear of not receiving rewards, and considerably stronger than the desire to master *learning goals* for their own satisfaction. For example, Lucy admitted that she did not put her hand up to answer any questions unless she was quite sure that she was right, because she was anxious about being reprimanded. When asked how she felt when reprimanded, she replied, 'Scared... and sometimes I get dojo points off [ie reward-points off]'. The teacher never told Ben off [VISIT05] for not knowing an answer, but he added, 'If she tells someone off near me I get really worried... panic'. If the teacher asked him a question to which he did not know the answer, he would 'freeze'. John Holt pertinently wrote in 1964, that many children are scared 'of disappointing or displeasing the many anxious adults around them' (1964, p.9). Some of our participants' striving for approval and reward suggested that they were more motivated by gaining adult approval than by grappling with the learning itself. While it is natural and potentially helpful that children sought to please parents and teachers with their achievements, it could become destructive to learning if this approval became a goal in itself.

Speedy working was part of the performativity culture and those who worked more quickly won more prizes. We asked Jerry, during VISIT05, whether it was more important to him to be well-behaved or 'smart'. His reply reflected his performative approach to school learning: 'Smart. Because if you're smart you'll get to have a lot of fun things. Like if you finish your work quickly you might be able to draw like a little picture'. And yet, in deep,

1
2
3 creative learning, speed may not be a benefit and indeed, careful thought, and
4
5 experimenting patiently with ideas, are fundamentally valuable. The focus on speed was
6
7 both anti-learning oriented and also led some children to prioritise completion over
8
9 learning. This was exacerbated when failure to complete was punished by being kept in
10
11 class during breaktime or lunchtime. Summer admitted on one occasion, 'I finished my work
12
13 and then someone was still working and they had to stay in, and I was like 'I'm glad that's
14
15 not me'' [VISIT02].
16
17
18
19
20

21 ***Competition and the performance orientation***

22
23 Teachers cannot control what parents focus their praise on, but teachers themselves can
24
25 encourage *learning* rather than *performance* – especially *learning* rather than competition – in
26
27 the classroom. Certain participants were particularly motivated by winning, within the
28
29 competitive environment. For example, Zack's [VISIT03] motivation for reading books was to
30
31 win:
32
33
34

35
36 Zack: For reading a book I get three dojo points...

37
38
39 Interviewer Denise: How many dojo points do you have to get, to get a prize?

40
41
42 Zack: Um, no you just have to get the most out of everyone.
43
44

45 Similarly, Mohamed told us that he wanted to be not only praised by his mother and the
46
47 teacher, but be 'the best student in the whole class', also emphasising the competitive
48
49 aspect of his goals rather than the mastery aspect [VISIT02]. This competitive aspect belongs
50
51 clearly to the performativity culture of schooling and plays no role in creative learning
52
53 except to erode it. For example, Chrystal rejected the idea of innate 'ability' but promoted
54
55 competition instead, when she advised the teacher to say to the pupil who felt unsuccessful,
56
57 'One day you'll be smarter than everyone in the class' [Chrystal, VISIT03]. The competitive
58
59
60

1
2
3 culture could lead to lower-attaining children being considered less worthy. JohnWick
4 [VISIT05], for example, referred to those in his class who needed more help than him as ‘tiny
5 babies and they don’t really know anything as much as I do ... I do more harder work’. While
6 his comment possibly reflects his own sense of incompetence, it stems from the systemic
7 legitimization of the classroom competition.
8
9
10
11
12
13
14

15 **How competence related to children’s sense of agency**

16
17
18 Watching faster peers go out to play could be a vivid reminder of one’s comparative
19 incompetence, immediately putting lower-attaining children at greater risk of feeling
20
21
22
23
24 *helpless*. Bob’s comment summed up how he perceived the solution to his lower-
25
26 attainment:
27
28

29 I wish- like- I was a prince of- like- the United Kingdom so every time I go to school-
30
31 like- the manager would come with me, behind, and tell me all the answers
32
33
34 [VISIT05].
35
36

37 For Bob, it seemed that teaching was telling, learning was listening (Watkins, 2005). Low-
38
39 competence led to more dependence. Participants stopped trying to act on their agency
40
41 when the task felt overwhelming and they felt incompetent. The *helpless approach*, would
42
43 then lead to boredom, especially since the children in our sample typically found it
44
45 problematic to sit still and listen when they were not drawing on their agency. They were
46
47 therefore likely to adopt an even more *helpless pattern*, characterized by an avoidance of
48
49 challenge, lack of engagement and then a deterioration of performance, in a downward
50
51 spiral. In some cases, children resorted to minor deceptions because they did not feel
52
53 competent enough to engage with a lesson. They used these to avoid the challenge before
54
55 them. JohnWick [VISIT03] told us that sometimes he was pretending to learn in class: ‘I was
56
57
58
59
60

1
2
3 just looking at the board and writing, but I wasn't actually writing it... some of the questions
4
5 are hard'. Summer described how, at home, when her mathematics homework sheets
6
7 seemed too hard, 'My mum just bes quiet and just puts them in bin' [VISIT05]. Neymar and
8
9 Jerry suggested that a good strategy for facing a difficult test was physically to hide away
10
11 from it [Neymar, VISIT01; Jerry VISIT04].
12
13

14
15
16 In addition, it may be that these lower-attainers were given less interesting work to do than
17
18 higher-attaining peers (as indicated by Hallam & Ireson, 2005). Certainly some children
19
20 themselves believed that they were less desirable students to teach. Jerry perceived that
21
22 teachers might be in trouble because of lower-attainment: 'Other teachers might tell that
23
24 teacher off, for making them [the pupils] get low marks'. Ben and Bella [VISIT05] both
25
26 agreed that it was more tiring to teach lower-attainers because teachers had to mark their
27
28 work more and re-teach topics. However, most children expressed their own responsibility
29
30 for achieving well, because they believed that anyone could achieve anything through
31
32 exerting enough effort. If they did not succeed, the children assumed that they had not tried
33
34 hard enough. This was particularly demotivating for this set of children who often tried very
35
36 hard but still did not succeed as expected. The children therefore sometimes expressed
37
38 resignation that they were defeated and then blamed themselves for this. Jerry [VISIT05]
39
40 embodied the view of personal blame, despite contradicting his own previous comment about
41
42 teachers being responsible for children's performance:
43
44
45
46
47
48

49
50 If [children] don't do good then it was their fault. Because the teacher has explained
51
52 it all but like they were probably not listening...In other words, Jerry was rejecting
53
54 the concept of innate 'ability' and replacing it with belief in an uncontested capacity
55
56
57
58
59
60

1
2
3 for children to achieve schooling's goals through their own hard work, regardless of
4
5 the evidence against this and regardless of the goals imposed.
6
7

8 **Discussion: threats to the Growth Mindset**

9

10
11 Our research sought to explore how competence and agency interrelated in the deep, or
12
13 creative, learning of children in our sample who had already been designated as lacking in
14
15 competence. Deep learning implies grappling with challenging concepts or ideas in order
16
17 better to understand and interact with one's world and people within it (Vygotsky, 1962).
18
19 The key to deep learning is motivation, including a sense of one's own agency in achieving
20
21 one's goals, as well as belief in one's own competence to achieve them (Ryan and Deci,
22
23 2000). However, our detailed qualitative data have illustrated to us that a growth mindset,
24
25 involving children's willing and enjoyable engagement with learning challenges, was
26
27 threatened in the primary-school by the systemic promotion of conformist behaviours,
28
29 competition and comparisons of pupils' respective attainments. Among children designated
30
31 by the current schooling system as lower-attainers, some children such as Rosie, Ryan and
32
33 Bella still managed to persevere with a *learning orientation* at school, despite an
34
35 environment heavy with performances, judgments and competition in which they did not
36
37 always do well. These children seemed to adopt schooling's goals as their own; and engage
38
39 willingly in learning challenges despite their relative lower-attainment. Other children
40
41 appeared to tolerate the restrictions placed on them to control their voices, their bodies
42
43 and learning focuses; but some inwardly resented the restrictions; and their frustration may
44
45 have interfered with a *learning orientation*. Others, such as Johnwick, Anna and Jerry
46
47 rebelled outwardly against the restrictions, potentially thwarting their best chances of
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 cultivating a healthy mastery of their own talents; but anyway achieving expression of
4
5 agency through alternative means.
6
7

8
9 As Dweck's (2017) theories predicted, when the children are most acutely aware of and
10
11 disturbed by being designated as lower-attaining, this threatened children's desire to act
12
13 agentically in order to attain the prizes valued by the system. This also led them to become
14
15 more passive and engage less. In our study, there was a group of children who seemed to
16
17 take the more *helpless* approach to school learning, such as Jeff, Chrystal and Britney. These
18
19 children seemed very aware of their labels as lower-attaining, even to the point of never
20
21 referring to it - as a protection of their sense-of-self. When faced with challenges, they
22
23 tended to react as Self-Determination Theory predicted (Ryan and Deci, 2000), with a
24
25 helpless sense of incompetence that stifled their sense of agency and sometimes made
26
27 them unwilling to engage at all. This is one response to Dweck's (2017) question, 'What are
28
29 the events or situations that take us to a place of judgement rather than to a place of
30
31 development?' She goes on to ask,
32
33
34
35
36

37
38 Great contributions to society are born of curiosity and deep understanding. If
39
40 students no longer recognize and value deep learning, where will the great
41
42 contributions of the future come from? (p.220)
43
44
45

46
47 Our study suggests that, if we sustain our current schooling system in England (and
48
49 potentially other countries), 'great contributions' will be largely confined to those children
50
51 who feel high competence and therefore harness their agency most effectively to overcome
52
53 challenges in schooling. If children's school identity continues to be defined by their
54
55 attainments in mathematics and/or writing, the system will continue to widen the gap
56
57 between those who start with advantages in life and those who do not. In Nancy Fraser's
58
59
60

1
2
3 (2008) words, the meritocratic policies of the performativity culture imposed on schooling,
4
5 accompanied by upward distributions of wealth globally, legitimate the 'exclusionary vision
6
7 of a just status order' (p.128). Our data have suggested that our schooling system, in
8
9 England at least, fosters neither the right mindset nor appropriate supports for learning
10
11 whereby the active, curious engagement of all young children is harnessed to *learning goals*.
12
13 To add to Dweck's conceptualisation of the growth mindset, Jerry's words were especially
14
15 insightful, in that he rejected the concept of innate 'ability' as the growth mindset would
16
17 propose: and yet, he seemed to replace it with belief in an uncontested capacity for children
18
19 to achieve schooling's goals through hard work and compliance, despite the evidence he
20
21 possessed to dispute this. Rather than fixed ability to attain at school, he referred to a fixed
22
23 ability to concentrate compliantly at school. This may be seen as the new barrier to justice.
24
25
26
27
28
29
30 The particular children we researched with were rarely mastering their own desired
31
32 attributes through a proactive process of enjoyable, challenging learning at school. For
33
34 example, Anna liked to draw outside school; but art lessons at school were infrequent and
35
36 limited in scope compared to mathematics/English. The system thereby threatened the
37
38 development of a growth mindset among the very children who stood to benefit most from
39
40 its development. Our research findings highlight the potential damage that can be done to
41
42 children's creative learning by the systemic emphasis on a very limited collection of prizes in
43
44 very limited subject domains in highly controlled classrooms. This damage occurs, despite
45
46 our knowledge that agency is an essential aspect of the human propensity for curiosity and
47
48 creativity which are also bases for human well-being (Helwig, 2006). Only by recognising the
49
50 perspectives and goals of all school-children, providing opportunities for all young people to
51
52 'make a difference' and exercise 'some sort of power' (Giddens, 1984, p. 14) will we be able
53
54
55
56
57
58
59
60 to recognise and respond when the *status quo* needs to change.

REFERENCES

- 1
2
3
4
5
6 Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education*
7
8 *Policy, 18*(2), 215-228.
9
10
11 Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9),
12
13 1175.
14
15
16 Chirkov, V. I. (2009). A cross-cultural analysis of autonomy in education: A self-
17
18 determination theory perspective. *Theory and Research in Education, 7*(2), 253-262.
19
20
21
22 Dweck, C. (2006). *Mindset*. London: Constable and Robinson.
23
24
25 Dweck, C. (2017). *Mindset-updated edition: Changing the way you think to fulfil your*
26
27 *potential*. UK: Hachette.
28
29
30 Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and
31
32 personality. *Psychological Review, 95*(2), 256.
33
34
35 Dweck, C. S., & Elliot, E. (1988). Goals: An approach to motivation and achievement. *Journal*
36
37 *of Personality and Social Psychology, 54*(1), 5-12.
38
39
40
41 Fielding, M. (1996). Beyond collaboration: on the importance of community. In: D. Bridges
42
43 and C. Husbands, eds. *Consorting & Collaborating in the education market place*.
44
45 London: Falmer, 149–167.
46
47
48
49 Fisher, H. (2011). Inside the primary classroom: Examples of dissatisfaction behind a veil of
50
51 compliance. *British Journal of Educational Studies, 59*(2), 121-141.
52
53
54
55 Fraser, N. (2008). *Scales of justice*. Cambridge: Polity Press.
56
57
58 Freire, P. (1972). *Pedagogy of the oppressed*. London: Penguin.
59
60

1
2
3 Francis, B., Taylor, B., & Tereshchenko, A. (2019). *Reassessing 'Ability' Grouping: Improving*
4 *practice for equity and attainment*. London: Routledge.

5
6
7
8 Furnham, A., & Bachtiar, V. (2008). Personality and intelligence as predictors of creativity.
9
10
11 *Personality and Individual Differences*, 45(7), 613-617.

12
13
14 Giddens, A. (1984). *The constitution of society*. Cambridge: Polity press.

15
16
17 Goodson, I., & Sikes, P. (2016). Techniques for doing life history. In *The Routledge*
18 *international handbook on narrative and life history* (pp. 82-98). London: Routledge.

19
20
21
22 Hallam, S., & Ireson, J. (2005). Secondary school teachers' pedagogic practices when
23
24
25 teaching mixed and structured ability classes. *Research Papers in Education*, 20(1), 3-24.

26
27
28 Hart, S., Dixon, A., Drummond, M.-J. & McIntyre, D. (2004). *Learning without limits*.
29
30
31 Berkshire: Open University Press.

32
33 Helwig, C. C. (2006). The development of personal autonomy throughout cultures. *Cognitive*
34
35
36 *Development*, 21(4), 458-473.

37
38
39 Holt, J. (1964). *How children fail*. Middlesex: Penguin.

40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
Howard-Jones, P. A. (2002). A dual-state model of creative cognition for supporting
strategies that foster creativity in the classroom. *International Journal of Technology and*
Design Education, 12(3), 215.

Ireson, J., & Hallam, S. (2001). *Ability grouping in education*. London: Sage.

Jackson, P. (1968). *Life in classrooms*. USA: Holt, Rinehart and Winston, Inc.

Jang, H., Kim, E. J., & Reeve, J. (2012). Longitudinal test of self-determination theory's
motivation mediation model in a naturally occurring classroom context. *Journal of*
Educational Psychology, 104(4), 1175.

- 1
2
3 Niemiec, C., & Ryan, R. (2009). Autonomy, competence, and relatedness in the classroom:
4 Applying self-determination theory to educational practice. *Theory and Research in*
5 *Education*, 7(2), 133-144.
6
7
8
9
10
11 Piaget, J. (1964). Part I: Cognitive development in children: Piaget development and
12 learning. *Journal of Research in Science Teaching*, 2(3), 176-186.
13
14
15
16 Plummer, K. (2001). The call of life stories in ethnographic research. *Handbook of*
17 *Ethnography*, 395-406.
18
19
20
21
22 Policastro, E., & Gardner, H. (1999). From Case Studies to robust generalizations: An
23 approach to the study of creativity. *Handbook of Creativity*, 213.
24
25
26
27 Pollard, A., & Filer, A. (1999). *The social world of pupil career: Strategic biographies through*
28 *primary school*. London: A&C Black.
29
30
31
32 Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic
33 motivation, social development, and well-being. *American Psychologist*, 55(1), 68.
34
35
36
37
38 Sheldon, K. M., Abad, N., & Omoile, J. (2009). Testing self-determination theory via Nigerian
39 and Indian adolescents. *International Journal of Behavioral Development*, 33(5), 451-459.
40
41
42
43 Schiro, M. (2013). *Curriculum theory: Conflicting visions and enduring concerns*. USA: Sage.
44
45
46
47 Vygotsky, L. (1934). 1962. *Thought and language*. Trans. E. Hanfmann and G. Vakar.
48 Cambridge: MIT Press.
49
50
51
52 Watkins, C. (2005). *Classrooms as Learning Communities: What's in it for schools?*. London:
53
54 Routledge.
55
56
57
58
59
60