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# Key Research Findings

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The Case for  
Cultural Learning

## The Case for Cultural Learning: Key Research Findings

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The Cultural Learning Alliance is a collective voice working to ensure that all children and young people are able to have an active engagement with the creation and enjoyment of our arts and heritage.

The Alliance includes a range of organisations working across the cultural and educational sectors, including philanthropists, umbrella organisations, cultural partners, education specialists, schools, universities and non-departmental public bodies. It is supported by a wider membership of 10,000 individuals and organisations.

The Cultural Learning Alliance (CLA) is chaired by Lord Puttnam. A Steering Group meets quarterly to oversee the work and direction of the Alliance, and an Advisory Panel offers expertise and strategic support to all aspects of the CLA's activities.

The CLA published its first five Key Research Findings in 2011. This new report brings the CLA's research up to date and presents a new, comprehensive and compelling case for the value of cultural learning within and beyond our education system.

Using only evidence from cohort studies with large sample sizes (typically 12,000), and research with control groups, the CLA can state emphatically that there are key skills delivered by cultural learning; these have been grouped into ten Key Research Findings.

This report is available as a free PDF from the CLA website:

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The arts and heritage are an intrinsic part of how we come to know and understand the world and how we express ourselves as individuals, communities and a nation.

They give enjoyment and inspiration, enabling children to develop their creativity and imagination. Learning through and about culture is a human right enshrined in international law. However, there are also solid and compelling educational, employment and civic benefits delivered by cultural learning.

### *Summary Key Research Findings*

1. Participation in structured arts activities can increase cognitive abilities by 17%.
  2. Learning through arts and culture can improve attainment in Maths and English.
  3. Learning through arts and culture develops skills and behaviour that lead children to do better in school.
  4. Students from low-income families who take part in arts activities at school are three times more likely to get a degree.
  5. Employability of students who study arts subjects is higher and they are more likely to stay in employment.
  6. Students from low-income families who engage in the arts at school are twice as likely to volunteer.
  7. Students from low-income families who engage in the arts at school are 20% more likely to vote as young adults.
  8. Young offenders who take part in arts activities are 18% less likely to re-offend.
  9. Children who take part in arts activities in the home during their early years are ahead in reading and Maths at age nine.
  10. People who take part in the arts are 38% more likely to report good health.
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## 1. Participation in structured arts activities can increase cognitive abilities by 17%

Across a range of high-quality evidence, the Culture and Sport Evidence (CASE) review found that taking part in structured arts activities could increase children's cognitive ability test scores by between 16% and 19% (CASE, 2010: p.29). The CAT (Cognitive Ability Test) is widely used in UK schools as an indicator of ability. Improving children's cognitive skills makes them better learners, more able to apply the knowledge they acquire.

Structured arts activities offer a way to improve children's thinking skills and thus improve their performance across the board at school, with knock-on effects of better life chances as adults. Using data from the British Cohort Study, we know that *an increase of one standard deviation in cognitive ability at age 11 is associated with a 20.2 percentage point rise in the likelihood of staying on at school post-16 and with approximately a 10% increase in hourly wages* (Carneiro et al, 2006: pp.1,14) at the age of 42.

## 2. Learning through arts and culture can improve attainment in Maths and English

Evidence points to gains in attainment in a range of subjects as a result of studying the arts. A 2015 literature review commissioned by CASE found *The evidence points to a positive relationship between arts and educational impacts* (Taylor et al, 2015: p.88).

One-third of young people in the youth justice system who completed the Summer Arts Colleges moved up a level in literacy and numeracy (Stephenson et al, 2014: p.83).

Young people using libraries read above the expected level for their age; young people who don't use libraries read below the expected level (Clark and Hawkin, 2010).

In the US, large cohort studies of 25,000 students undertaken by James Catterall show that taking part in arts activities increases student attainment in maths and literacy, with particularly striking results for students from low-income families (Catterall, 2009, 2012).

*'Teenagers and young adults of low socio-economic status (SES) who have a history of in-depth arts involvement show better academic outcomes than do low-SES youth who have less arts involvement. They earn better grades and demonstrate higher rates of college enrolment and attainment.'* (Catterall, 2012: p.12)

Other studies echo these results, with Ruppert finding that students who take arts classes have higher maths and verbal SAT scores than students who take no arts classes (2006: p.9). Canadian research reported increases in maths ability after three years of arts education compared to control schools (Smithrim & Upitis, 2005) and in Australia they have shown children who take part in arts activities in the home during their early years are ahead in reading and maths at age nine (see Key Research Finding 9).

### 3. Learning through arts and culture develops skills and behaviour that lead children to do better in school

We know studying arts subjects increases transferable skills – things that equip pupils to learn. A systematic review of international evidence found that participating in structured arts activities led to increases in transferable skills (including confidence and communication) of between 10–17% (CASE, 2010: p.29).

The Right to Read programme reported increases in social skills and self-esteem (Griffiths et al, 2007) and smaller studies with control groups have shown increases in self-esteem and self-efficacy (the sense that they have confidence in their ability to overcome problems and achieve goals) for young people taking part in drama (Fleming et al, 2004), and visual arts (Catterall and Pepler, 2007).

Research shows specific art forms can have specific benefits. Singing can help with language learning (Ludke et al, 2014). Music increases IQ and Dance and Drama social skills (Schellenberg, 2004). Hong Kong research shows particular improvements in creativity and communication through studying visual arts (Hui, He and Sam Ye, 2015). German research has shown a causal relationship between music and educational attainment (Yang, 2015).

### 4. Students from low-income families who take part in arts activities at school are three times more likely to get a degree

A report by Karen Robson for the Institute for Social and Economic Research, using the British Cohort Study of 1970, found that *even accounting for the effects of economic capital of the family of origin, art and music-related leisure, having attended a night course, reading for pleasure, visiting a library and leisure writing at age 16 all increased the odds of having a university degree at 29* (2003: p.22).

Using the NELS:88 cohort study in the US, Catterall found that *students who had intensive arts experiences in high school were three times more likely than students who lacked those experiences to earn a bachelor's degree. They also were more likely to earn 'mostly A's' in college (17% versus 5% of low SES students)* (2012: p.16). Catterall also found that *Both 8th-grade and high school students who had high levels of arts engagement were more likely to aspire to college than were students with less arts engagement* (2012: p.14).

An earlier study by Catterall also found that the education advantages to the students with high arts involvement appeared to increase over time, and *arts-engaged low-income students tend to perform more like average higher-income students* (President's Committee on the Arts and the Humanities [PCAH] 2011: p.18). This suggests a role for the arts in schools as a way of combating inequality. Research from schools in Chicago, North Carolina and Oklahoma shows arts integration as an efficient, successful school improvement tool, raising attainment, improving the attendance and behaviour of students and increasing teacher morale (PCAH, 2011: pp.19–21).

## 5. Employability of students who study arts subjects is higher and they are more likely to stay in employment

The creative economy accounts for one in 11 jobs in the UK (DCMS, 2016: p.5).

NESTA found in 2015 that 87% of highly creative jobs are at low or no risk of automation, compared with 40% of jobs in the UK workforce as a whole (Bakhshi et al, 2015).

A study using the Scottish School Leavers Survey database found that *Amongst young people leaving school at the earliest opportunity, employability is generally higher for those that had studied arts subjects.* The same study also found that:

*'When employability is controlled for the number of years spent in school, young people that studied arts subjects tend to have higher employability and are more likely to maintain employment than those that did not study arts subjects. In addition, young people who took 2 or more arts subjects at standard grade tend to have a higher rate of employment than those who took only 1 arts subject.'* (DTZ, 2006)

We know from the CASE programme that structured arts activity leads to increases in transferable skills of 10–17% (2010: p.29), and findings from the Centre for the Economics of Education at LSE show that transferable skills improve labour market outcomes (Carneiro et al, 2007 & Feinstein, 2000).

## 6. Students from low-income families who engage in the arts at school are twice as likely to volunteer

CASE found in their 2015 systematic review of relevant literature that *Volunteering and caring are both developed by arts engagement* (Taylor et al, 2015: p.84).

In the US the NELS:88 survey tracked 12,000 participants through to age 26. Looking specifically at the outcomes of students from low socio-economic status (SES) backgrounds, at the age of 26 they found that 24.3% of those who had been engaged in the arts at school were volunteering compared to 10.8% of non-engaged students (Catterall, 2009).

In addition, in both high-and low-SES groups, young adults who had arts-rich experiences in high school were more likely than other young adults to have volunteered recently (Catterall, 2012: p.19).

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## 7. Students from low-income families who engage in the arts at school are 20% more likely to vote as young adults

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Using time diaries compiled over four days at age 16 by participants in the British Cohort Study of 1970, and controlling for other factors such as family background, Robson found that *art and music-related leisure, reading for pleasure and visiting a museum during the reference period at age 16 increased the odds of civic engagement at 29* (2003: p.23).

Catterall found that *high-arts students are about 15 percent more likely to register to vote, more than 30 percent more likely to have voted in the most recent presidential election, and about 20 percent more likely to have voted in any election in the 24 months leading to the last NELS survey panel* (Catterall, 2009: p.64).

Young adults who had arts-rich experiences in high school were more likely to vote and/or to participate in a political campaign. Virtually all of these differences were observed only in low socio-economic status groups.

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## 8. Young offenders who take part in arts activities are 18% less likely to re-offend

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Re-offending rates among young people who took part in Summer Arts Colleges (SACs) were 54% compared to a national re-offending rate of 72% (Stephenson et al, 2014: p.92).

Every young person from the SACs who does not re-offend saves the criminal justice system £14,000 a year. Between 2007 and 2010 this saved the Criminal Justice System more than £1 million (Stephenson et al, 2014: p.103).

Completion of a Summer Arts College meant that a young person was nearly four times more likely to be a high 'engager' in education training and employment post-programme (Stephenson et al, 2014: p.84).

US data shows that *At-risk teenagers or young adults with a history of intensive arts experiences show achievement levels closer to, and in some cases exceeding, the levels shown by the general population studied* (Catterall, 2012: p.24).

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## 9. Children who take part in arts activities in the home during their early years are ahead in reading and Maths at age nine

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In the surveys at ages three and five for the UK cohort study *Child of the New Century* (CNC), mothers were asked how often they helped their child with reading and writing and activities such as drawing and painting. Researchers have found that children who had these types of interactions in their pre-school years tend to display better behaviour and moods, and higher ability in reading and Maths (*Child of the New Century*, 2016).

Using the Longitudinal Study of Australian Children, which tracks 10,000 children and families, Australian research has shown that the frequency of children's home activities, which include being taught a song, playing games, and doing arts and crafts activities with their carers when they are aged two to three years, is related to their reading and numeracy performance aged eight to nine.

Children who engaged in home activities achieved higher NAPLAN (Australia's National Assessment Program Literacy and Numeracy) reading and numeracy scores equivalent to being 12 weeks of schooling ahead in reading and six weeks ahead in numeracy (Yu & Daraganova, 2015).

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## 10. People who take part in the arts are 38% more likely to report good health

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A Scottish study found that people who had participated in a creative or cultural activity were 38% more likely to report good health compared to those who did not; and for those who participated in dance, the figure rises to 62% (Leadbetter & O'Connor, 2013).

Nordic data found that people who visited cinemas, art exhibitions, museums or concerts, compared with those who rarely visited, had a lower mortality risk (Konlaan, 2000). Italian data shows that cultural access is the second most important determinant of wellbeing, above factors including occupation, age, income and education (Grossi, 2010 & 2012).

Different types of art activities increase different elements of health and wellbeing. Dance improves the physical health of participants, in particular teenage girls who are not engaging in other physical activity (Connolly et al, 2011). Shared reading has been found to improve an individual's sense of purpose. Theatre and drama improve young people's social skills and emotional wellbeing. We also know that engaging in the arts increases young people's resilience – a key component of good mental health.

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