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Arguments on the school starting age

1 Introduction

The Education Reform (Northern Ireland) Order 1989 implemented the current compulsory school age so that each child receives a full 12 years of schooling. In Northern Ireland, children who have reached the age of four on or before 1st July will commence primary school the following September, and therefore can begin school from the age of four years and two months.

Northern Ireland has the lowest compulsory school age in Europe, and there are some concerns regarding the comparatively low school starting age here (and throughout the UK). For example, a number of commentators suggest that children aged four and five may not be ready for formal primary school or reception class, and that attending school at an early age may cause stress among young pupils.¹

¹ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

This briefing paper provides an overview of the different arguments or positions on the school starting age. The paper highlights that there are differing views and evidence on this issue.

School starting age elsewhere

Six is the most common starting age in Europe and across the world. Table 1 provides an overview of compulsory school starting ages in Europe. However, it should be noted that this is often the latest age at which children must start school, and in some European countries (including England and the Netherlands), most children enter school below the compulsory school age. In addition, most countries have pre-school systems which the majority of children attend.

Table 1: Formal school starting ages in selected countries

Age	Country
Four	Northern Ireland
Five	England, Malta, Netherlands, Scotland, Wales
Six	Australia, Austria, Belgium, Cyprus, Czech Republic, Denmark, France, Germany, Greece, Hungary, Iceland, Republic of Ireland, Italy, Liechtenstein, Luxembourg, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey
Seven	Bulgaria, Estonia, Finland, Latvia, Lithuania, Sweden

Source: *Compulsory age of starting school in European countries* [online] Available at <http://www.nfer.ac.uk/nfer/index.cfm?9B1C0068-C29E-AD4D-0AEC-8B4F43F54A28>

Eurydice notes that there is a trend in Europe towards requiring children to start education at a younger age. Indeed, a number of countries have lowered their school starting ages recently (for example, Poland, Denmark and Romania have reduced their school starting ages from seven to six), and others have made pre-school attendance compulsory.²

2 Views on appropriate provision at ages four-five

The literature indicates that there is a degree of consensus across many countries regarding what early years provision is appropriate for children aged from three years.

² *Compulsory age of starting school in European countries* [online] Available at <http://www.nfer.ac.uk/nfer/index.cfm?9B1C0068-C29E-AD4D-0AEC-8B4F43F54A28>

Provision internationally for this age group tends to involve an active, play-based approach, encouraging self-management and independence among young children.³

In many of the countries with an older school starting age, there is structured pre-school provision available for a period before the compulsory school starting age (usually one or two years). For example, Finland provides early years education and care for every child under compulsory school age.

There are a number of key differences between pre-school and primary school education, including the following:⁴

- Children spend less time on tasks of their own choosing in primary school;
- Children are less physically active and spend more time sitting still at primary level;
- In primary school the curriculum is more subject-related and places emphasis on number, reading and writing, rather than play and the development of oral and social skills;
- Adult-child ratios are generally higher in pre-school settings; and
- Teaching staff in pre-school settings usually have qualifications that are specifically focused on the needs of young children.

Many authors assert that the curriculum for children aged below five should not involve 'formal' academic teaching or focus on particular subjects; rather it should emphasise play and development and provide children with opportunities to socialise and take responsibility for their own learning.⁵

The Foundation Stage of the Revised Curriculum which became statutory in Northern Ireland in 2007 aimed to give teachers more flexibility in how they teach children in the first two years of primary school and to place greater emphasis on play. Nonetheless, the Foundation Stage includes reading, writing and mathematics as part of its curriculum.⁶

3 Arguments on the school starting age

Overview

There has been much debate about the appropriate age for children to attend formal primary school. Overall, the evidence does not advocate an ideal age for children starting school.

³ Bertram, T. and Pascal, C. (2002) *Early Years Education: An International Perspective*. London: QCA

⁴ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

⁵ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

⁶ CCEA (2006) *Understanding the Foundation Stage* Belfast: CCEA

For example, research carried out on behalf of the National Foundation for Educational Research (NFER) into school starting age in Europe⁷ did not find evidence for an optimum age for children starting school. Similarly, a study in Scotland found 'no evidence at all' for an optimum age.⁸

These findings are supported by an article in the *Australasian Journal of Early Childhood* which describes conflicting reports on the value of children starting school at an older age, and suggests that this mixed evidence indicates that age alone is not an ideal predictor of school success.⁹ A study in the US further supports this, stating that age of entry effects were small in magnitude and should not be regarded as a major determinant of children's school achievement. It suggests instead that it could be considered in the context of other, more important, factors (such as behaviour and abilities).¹⁰

Views on the current starting age

Those who support the current situation on a school starting age of four here and four-five in the UK put forward a number of arguments, suggesting that:¹¹

- Children can get a head start in learning;
- Young children are able to learn the more formal skills inherent in the curriculum;
- An early start provides an opportunity for children from disadvantaged backgrounds to make up the deficit in their academic skills; and
- Early school starting age is thought to be popular among parents.

However, in a review of the evidence Sharp¹² notes that arguments in favour of children being taught academic skills earlier do not appear to be borne out by the evidence. The review finds no compelling educational rationale for a statutory school age of four or five. The report also noted that a later start at school does not appear to hold back children's progress.

For example, while children who have been taught reading, writing and numeracy at an early stage will perform better than their counterparts who have not, the evidence consistently shows that this advantage is not sustained in the longer-term. In addition,

⁷ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

⁸ Tymms, P. et al. (2005) *Children starting school in Scotland*. Edinburgh: Scottish Executive Education Department

⁹ Dockett, S., Perry, B. (2009) "Readiness for school: A relational construct" *Australasian Journal of Early Childhood*. Vol. 33, No. 1 pp. 20-26

¹⁰ NICHD Early Child Care Research Network (2007) "Age of Entry to Kindergarten and Children's Academic Achievement and Socioemotional Development" *Early Educ Dev*. Vol. 18 (2) pp.337-368

¹¹ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

¹² Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

children who are taught these skills up to three years later tend to acquire them rapidly and perform as well or better than children with an early start.¹³

In addition, there is little evidence to indicate that an early start in school can make up for any deficiencies in the home learning environment of children from disadvantaged backgrounds.¹⁴

Arguments from developmental psychology

Nonetheless, there is some evidence to suggest that children aged between four and five may not be ready for formal education. For example, there are suggestions that four year old children are likely to be much less mature than five year olds in terms of fine motor control, which is manifested in poorer writing ability.¹⁵ Sharp highlights suggestions that an early introduction to a formal curriculum may have a negative impact on children's self-esteem and motivation to learn.¹⁶

A report by Cambridge Assessment¹⁷ highlighted concerns about children attending formal education at a young age. It cites reports on developmental psychology that suggest children between the ages of four and five may not be ready for formal education.

With regard to social and emotional readiness for schooling, research indicates that many children aged four may not be well equipped to deal with a number of features of attending school, including:¹⁸

- Facing separation from their parents each morning;
- Leaving familiar surroundings and possessions;
- Spending time with other adults and children and getting to know strangers;
- Finding their place in a new hierarchy;
- Adapting to new routines and rules; and
- Getting used to not having their own way.

Indeed, other research suggests that the central nervous system of younger children is less mature, particularly in terms of self-regulation of attention, emotion and other

¹³ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

¹⁴ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

¹⁵ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

¹⁶ Sharp, C. (2002) *School Starting Age: European Policy and Recent Research*. Paper presented at the LGA Seminar, November 2002. NFER and Local Government Association

¹⁷ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

¹⁸ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

functions. This has implications for their ability to adapt to school life, for example, remaining seated for extended periods.¹⁹

Nonetheless, a study of children in Scotland has suggested that there is no evidence that children aged four and a half suffered by starting school too early. At the same time, this report found no evidence that five and a half year old children were placed inappropriately.²⁰

Gender

Research indicates that girls perform better at school than boys in a number of areas, such as in behaviour and literacy. For example, a recent study in NI found that when all child characteristics, socio-economic, parental, family and home variables have been considered, gender shows effects in a broad range of areas, with boys tending to do less well than girls overall. The key findings of the study in relation to gender include:²¹

- Gender affected children's scores on literacy, with girls achieving better scores than boys at the end of the first two years of primary school;
- Girls showed fewer conduct problems than boys, and achieved higher scores in terms of independence/ concentration, co-operation/ conformity and empathy; and
- Boys showed an increase in conduct problems and social isolation at the end of P2 in comparison with girls.

Other research shows that a significantly higher proportion of boys than girls are identified as 'at risk' of developing special educational needs in terms of their cognitive attainments at entry to pre-school. However, it should be noted that the majority of boys are not deemed to be 'at risk'.²²

The evidence indicates that a number of factors may contribute to the underachievement of boys in comparison to girls. It is thought that factors such as different learning styles, assessment methods, curricula and pedagogy and teachers' expectations can play a part.²³

Arguments around the 'birthdate effect'

There is significant evidence internationally to indicate that the youngest children in their year group at school tend to perform at a lower level than their older classmates,

¹⁹ Polizzi, N. et al. (2007) "Season of birth of students receiving education services under a diagnosis of emotional and behavioural disorder" *School Psychology Quarterly* Vol. 22 (1) pp.44-57

²⁰ Tymms, P. et al. (2005) *Children starting school in Scotland*. Edinburgh: Scottish Executive Education Department

²¹ Melhuish et al. (2006) *Effective Pre-school Provision in Northern Ireland Summary Report* Bangor: DE

²² Taggart, B. (2010) *Vulnerable children 'Identifying children at risk'* Oxon: Routledge

²³ Arnot, M., et al. (1999) *Closing the Gender Gap: Postwar Education and Social Change* Cambridge: Polity Press

particularly in reading, writing and mathematics.²⁴ In Northern Ireland, the relative age disadvantage is thought to be greatest for children born in May and June.

The research suggests that this 'birthdate effect' is most pronounced during pre-school and primary school, and that the effect gradually and continually decreases throughout post-primary school. Nonetheless, it is thought to remain significant at GCSE, A level and possibly during higher education.²⁵

For example, research by the Institute of Fiscal Studies into attainment at Key Stage 1 found that 53% of August-born girls (youngest in the year group) reached the expected level, compared to 80% of September-born girls (oldest in the year group). At Key Stage 2, the gap in attainment had narrowed, but remained significant, with 63% of August-born girls reaching the expected level compared to 76% of their counterparts born in September.²⁶

It has been suggested that the age-related disadvantages of young-for-year children can lead to lower self-esteem, which may in turn have further impacts on behaviour and achievement.²⁷ For example, younger children may compare themselves with older classmates, leading to feelings of inadequacy, whereas older, more mature pupils may receive more positive feedback and assume a 'leadership position'.²⁸

The evidence also suggests that a disproportionately high percentage of relatively young children in the school year are referred for special educational needs, and many of them appear to be misdiagnosed. A suggested reason for this is that teachers may have unrealistic expectations of younger pupils, and, as such, may not make sufficient allowances for their level of attainment.²⁹

A key hypothesis for this effect relates to the relative age of children, with the gap between the youngest and oldest pupils in a class being almost a year in many cases. Research suggests that the youngest in the year group tend to be less mature cognitively, socially and emotionally than their older classmates.³⁰

Policy options

A number of policy options are suggested in the literature to address the gap in attainment between summer-born and other children. These are summarised in the

²⁴ Sharp, C. (2009) *International thematic probe: The influence of relative age on learner attainment and development* NFER and Sharp, C. (2009) *International thematic probe: The influence of relative age on learner attainment and development* NFER

²⁵ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

²⁶ Crawford, C. et al. (2007) *When You Are Born Matters: The Impact of Date of Birth on Child Cognitive Outcomes in England*. London: Institute for Fiscal Studies

²⁷ Polizzi, N. et al. (2007) "Season of birth of students receiving education services under a diagnosis of emotional and behavioural disorder" *School Psychology Quarterly* Vol. 22 (1) pp.44-57

²⁸ Sharp, C. (2009) *International thematic probe: The influence of relative age on learner attainment and development* NFER

²⁹ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

³⁰ Sykes, E. et al. (2009) *Birthdate Effects: A Review of the Literature from 1990-on*. Cambridge: Cambridge Assessment

following table. A further option, of allowing for flexibility in the school starting age, is considered subsequently.³¹

Table 2: Some suggested policy options to address the ‘birth date effect’

Option	Overview
Age normalisation of test results	<ul style="list-style-type: none"> Age standardised tests may be used: for example. Interactive Computerised Assessment System (InCAS) results in NI show whether a pupil is above or below average for their age;
Testing when ready	<ul style="list-style-type: none"> Allowing pupils to take tests when ready to sit them
Curriculum and pedagogy	<ul style="list-style-type: none"> Ensuring that the curriculum and approach to teaching is appropriate for relatively younger children;
Monitor referral rates for age effects	<ul style="list-style-type: none"> The referral of children for special educational needs could be monitored to explore relative age effects
Include issue of relative age in teacher training	<ul style="list-style-type: none"> Raising awareness among teachers of the effect of age on outcomes may help them to tailor provision to children of different ages

Flexibility in school starting age

As outlined in the previous table, flexibility over school starting age has been suggested as a possible means of addressing the ‘birthdate effect’. However, the evidence on this approach is not conclusive.

One international literature review states that the body of evidence does not support the effectiveness of deferred entry to school as a response to relative age effects.³² For example, research evidence in the US, where delayed entry to school is fairly common, states that it is unclear whether holding back benefits schools or children. The key findings included:³³

- Holding back creates a class with an age span of more than a year;

³¹ Crawford, C. et al. (2007) *When You Are Born Matters: The Impact of Date of Birth on Child Cognitive Outcomes in England*. London: Institute for Fiscal Studies and Sharp, C. (2009) *International thematic probe: The influence of relative age on learner attainment and development* NFER

³² Sharp, C. (2009) *International thematic probe: The influence of relative age on learner attainment and development* NFER

³³ Katz, L.G. (2000) *Academic Redshirting and Young Children* Eric Digest

- This may cause difficulties as older children may feel alienated from younger children and older children may have an unfair advantage;
- Having a wider age-span may make the class too diverse for a teacher to manage well;
- There was some evidence that children gain a social and academic advantage by being the oldest in the class, at least in the first three years at school;
- However, there was evidence that held back children showed more behavioural problems and used special education services more than their classmates; and
- Some held back children may have special needs that are initially misdiagnosed as immaturity, and these children may be better served by direct intervention than by deferred entry to school.

The research from the US indicates that children whose entry to school is delayed tend to be younger in the year-group, boys and children from ethnic minority backgrounds.³⁴

Concerns have also been raised regarding who should decide the age at which a particular child should start school. In particular, there are concerns that if parents are involved in the decision-making process, it is more likely that better-off families would avail of the flexibility, as less well-off families may be more reliant on the extra hours of free childcare that school provides in order to make work affordable. It has been proposed that full-time pre-school provision should be available if flexibility in the school starting age is introduced.³⁵

Another study suggests that a number of issues should be taken into account before parents chose to defer school entry of children with summer birthdays by a year, including:³⁶

- Whether children learn from older peers;
- Whether the child may be affected by not performing as well as their older peers; and
- The child's gender and reading ability.

4 Summary

Northern Ireland has the lowest school starting age in Europe at four years. The most common school starting age in Europe and across the world is six years. The evidence indicates that there is no optimum age for starting school. However, there is broad

³⁴ Katz, L.G. (2000) *Academic Redshirting and Young Children* Eric Digest

³⁵ Crawford, C. et al. (2007) *When You Are Born Matters: The Impact of Date of Birth on Child Cognitive Outcomes in England*. London: Institute for Fiscal Studies

³⁶ Oshima, T.C. and Domaleski, C.S. (2006) "Academic performance gap between summer-birthday and fall-birthday children in grades K-8" *Journal of Educational Research* Vol. 99 (4) pp. 212-217

agreement that the curriculum for children aged four and five should emphasise play and development rather than 'formal' academic teaching.

Those who support an early school starting age suggest that children can get a head start in learning and that it can help children from disadvantaged backgrounds. However, these arguments do not appear to be supported by the evidence. For example, while there is an initial educational benefit for young children starting school early, this is not sustained in the long-term, and there is little evidence that an early start can make up for any deficiencies in the home learning environment of young children.

Proponents of a later school starting age often cite arguments from developmental psychology, which can suggest that children aged four and five may not be ready for formal education. However, other studies have concluded that younger children are not disadvantaged by attending school early.

It is widely acknowledged that the youngest children in a year group tend to perform at a lower level than their older classmates. This 'birthdate effect' is found to be greatest at pre-school and primary school, continually decreasing throughout post-primary school. Research suggests that the youngest children in the year group tend to be less mature than their older counterparts, and that teachers may not make sufficient allowances for their level of attainment.

A number of policy options have been suggested to address the 'birthdate effect', including age normalisation of test results, testing when ready, raising teacher awareness of the effect and flexibility in the school starting age. The evidence on allowing flexibility in the school starting age is not conclusive. Concerns around this include:

- Creating a class with an age span of more than a year, potentially causing difficulties for children and challenges for the class teacher;
- Lack of clarity in the US around whether delayed school entry is beneficial;
- Implications for pre-school provision; and
- Concerns around who should have responsibility for deciding when a child should begin school. In particular, there are concerns that if parents are responsible, better-off families are more likely to avail of the flexibility.

In light of these findings, areas for consideration could include the Foundation Stage of the Revised Curriculum and the extent to which it is appropriate for young children; what actions could be taken to address the 'birthdate effect'; and the potential benefits and challenges of introducing flexibility in the school starting age.