

National Improvement Framework

A consultation on enhanced data collection for improvement, and the key measures to assess progress towards closing the poverty related attainment gap

Education - National Improvement Framework

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Introduction

In 2021, both the Organisation for Economic Co-operation and Development (OECD) and Audit Scotland published reports which made recommendations relating to data collection and the need to ensure it reflects the ambitions of Curriculum for Excellence.

Audit Scotland recommended that the Scottish Government:

- “work with stakeholders to develop and publish consistent and robust national data that reflects the ambitions of the national curriculum, national policy priorities such as health and wellbeing and confidence, and key priorities for Covid-19 recovery and improvement.”
- update the NIF to reflect data on these agreed outcomes and consider how to ensure that there is greater prominence on these broader outcome measures in public reporting and messaging, for example by inclusion in the NIF key indicators.”

The OECD report says:

- “It is also important to recognise that the broad aims of CfE and the four purposes require considering the influence of the wider context in their accomplishment. Scotland should define indicators or a “matrix of success” aligned to the vision and four capacities to help understand students’ progress across all four capacities. In addition to the National Improvement Framework’s measures of literacy and numeracy, other metrics informing progress on the four capacities are necessary, especially around health and well-being, enjoyment of learning and other key competencies.”

In light of these recommendations, there are two areas of focus for this consultation paper:

- how to ensure that the basket of key measures to assess progress towards closing the poverty related attainment gap reflects the wider ambitions of the curriculum, and
- the value of the wider data for improvement purposes, both qualitative and quantitative, and the range of data needed by schools, education authorities and at the national level in order to fulfil their different requirements.

The results of this consultation will also inform the plans for a national discussion on the vision for Scottish education, which is being taken forward in response to the

recommendation in Professor Ken Muir's report Putting Learners at the Centre: Towards a Future Vision for Scottish Education, that:

- The Scottish Government should initiate a national discussion on establishing a compelling and consensual vision for the future of Scottish education ... in particular the importance of placing the learner at the centre of all decisions. The vision for Curriculum for Excellence (CfE) should be considered as part of this discussion as should consideration of how the education system seeks to address the purposes described in Article 29 of the United Nations Convention on the Rights of the Child (UNCRC).

The national discussion will include wider consideration of how to measure the effectiveness of the curriculum as a whole, as recommended by the OECD.

Background

The primary purpose of the National Improvement Framework (NIF) since its introduction in January 2016 has been to bring together an enhanced range of information and data at all levels of the system, to drive improvement for children and young people in early learning and childcare settings, schools, and colleges across the whole of Scotland. The Scottish Attainment Challenge has also become a rich source of information about good practice in schools, and how high-quality teaching and learning delivers improvements in outcomes.

The NIF already contains a wider range of data than is often reported, but more needs to be done to ensure that this wider data is in use across the education system, and that these wider measures are valued as equally as traditional attainment measures.

The key measures set out in the NIF (and the national stretch aims linked to them) are only one part of this data and were identified in order to assess progress towards closing the poverty related attainment gap.

Key measures

In the 2018 NIF and Improvement Plan, we set out our approach to measuring the poverty related attainment gap between children and young people from the least and most disadvantaged communities. After a formal consultation process, we identified eleven key measures to assess progress, and a further fifteen sub-measures that reflect the key stages of the learner journey and the breadth of issues that can impact on attainment. Together these provide a wide range of measures covering school leaver attainment, and literacy and numeracy, but also other, broader, measures such as health and wellbeing, school attendance rates and school leaver destinations.

The full range of NIF key measures and sub-measures are listed below.

Key measures	Sub-measures
27-30 month review (Children showing no concerns across all domains)	P1 – Literacy
HWB: Children total difficulties score (age 4-12)	P4 – Literacy
HWB: Children total difficulties score (age 13&15)	P7 – Literacy
Primary – Literacy (P1, P4, P7 combined)	P1 – Numeracy
Secondary Literacy (S3, 3rd level or better)	P4 – Numeracy
Primary – Numeracy (P1, P4, P7 combined)	P7 – Numeracy
Secondary Numeracy (S3, 3rd level or better)	HWB: 27-30 month review uptake
SCQF 4 or above (one or more on leaving school)	HWB: Mental wellbeing score: 13 year old boys
SCQF 5 or above (one or more on leaving school)	HWB: Mental wellbeing score: 13 year old girls
SCQF 6 or above (one or more on leaving school)	HWB: Mental wellbeing score: 15 year old boys
Participation measure	HWB: Mental wellbeing score: 15 year old girls
	Primary attendance rates
	Secondary attendance rates
	Primary exclusion rates (rates per 1000 pupils)
	Secondary exclusion rates (rates per 1000 pupils)

In terms of the existing key measures and sub-measures, we propose to retain the existing eleven key measures to ensure that we do not lose the consistent time series which is crucial for tracking the trends and changes in the data on closing the attainment gap over time. So this consultation is about which additional measures it would be appropriate to include in order to ensure that the basket of key measures includes data on wider outcomes as well as attainment.

Stretch aims – national and local

Closing the poverty related attainment gap remains a top priority for this Government - we want every child to have a fair chance in life, and we know that a good education is the foundation of that. Pre-pandemic, the poverty related attainment gap was closing, but the negative impact of the pandemic cannot be ignored and this remains a complex and long-term endeavour. While there have been positive

indications of progress, there are also variations in the pace of that progress across the country (as highlighted in the Audit Scotland report) and we know that the impact of COVID-19 is likely to have placed further pressure on the gap. Through the refreshed Scottish Attainment Challenge, we are working with the system to support education recovery, accelerate progress towards closing the attainment gap, and deliver on the mission of the Scottish Attainment Challenge “to use education to improve outcomes for children and young people impacted by poverty, with a focus on tackling the poverty related attainment gap”.

This refreshed programme will also aim to tackle variation in outcomes for young people across the country.

We will, therefore, develop a national picture of the ambition for progress across the system by aggregating the ambitious, locally identified, stretch aims for progress towards the mission of the Scottish Attainment Challenge set by all local authorities, in line with the [Framework for Recovery and Accelerating Progress](#). In doing so, we will recognise the impact of the pandemic on children and young people’s attainment, and on their health and wellbeing, and understand the scale of the challenge to recover and improve from there.

The current national stretch aims are set out in the [2018 National Improvement Framework](#), and these will be recalibrated to take into account the impact of the pandemic, as well as the stretch aims set locally in line with the Framework for Recovery and Accelerating Progress.

The purpose of data collection

Together with the National Improvement Framework Interactive Evidence Report, the NIF has improved the availability, quality and consistency of data, and extended understanding of what works to drive improvements for children and young people across all parts of the Scottish education system.

The Scottish Government recognises that national data needs to provide an accurate understanding of the wide range of learners’ achievement, and support a fuller understanding of the gaps in achievement and life chances between different groups of learners and how this is captured across the full learner journey. This helps to support improvement planning at a national and local level.

It is also important to recognise that, in some instances, a key tool for local authorities and schools is local data that may not be appropriate to be collected nationally. To support improvement in our education system, and deliver on the ambition of excellence and equity, decision-makers at all levels need to gain a better understanding of what good teaching is, and how it leads to better learning in schools.

Although national statistics provide helpful information on trends over the long term, national data alone isn’t what drives improvement in education systems. For that we need small data based on teachers’ professional observations, formative assessments, and reflections of what is happening during teaching and

learning. This enables individual learners, their teachers and parents/carers to understand and track progress.

Of particular concern to Audit Scotland was the need for more consistent and robust national data that reflects the ambitions of the national curriculum, national policy priorities such as health and wellbeing and confidence, and key priorities for COVID-19 recovery and improvement. The report also highlighted a large variation in trends in outcomes across local authority areas, with evidence of worsening performance and/or inconsistent improvement across a range of key indicators in recent years. In order to address the points raised by Audit Scotland, this consultation covers both the wider data that is collected to inform improvement, and how that might be utilised, as well as the key measures.

Data already collected and how it relates to the curriculum

Since the introduction of the National Improvement Framework in 2016, there has been an increase in the data and wider performance information that is collected by the Scottish Government and Education Scotland and published in the [National Improvement Framework Interactive Evidence Report](#) (NIFIER). Annex A sets out a range of data that is already available, much of which is already included in the NIF. It demonstrates the wealth of data already being collected, but begs the question of whether we are doing enough to ensure, as recommended by Audit Scotland, that there is greater prominence on these broader outcome measures in public reporting at school, regional, or national level. Some of this wider data is set out below.

HM Inspectors of Education (HMIE)

HMIE carry out independent scrutiny across sectors ranging from early learning and childcare to adult learning. This includes the impact of the approach to wellbeing, equality and inclusion which underpins children and young people's ability to achieve success. While inspections have been paused during COVID-19, HMIE carried out a national overview of practice, supported with case studies and examples of effective practice to support system wide improvement. In addition, recovery visits have taken place with schools and settings, to evaluate the impact of the pandemic on learners' health and wellbeing, teachers' health and wellbeing and the impact of the pandemic on progress and performance outcomes for pupils.

Wider achievements e.g. sporting achievements, music qualifications etc.

Insight is a benchmarking tool designed to help bring about improvements for learners in the senior phase (S4 to S6). It provides schools with information about where a school is having the most success for pupils in the senior phase and also where improvements can be made.

Insight includes attainment achieved through a range of qualifications and providers – not just SQA - reflecting the wider context of the school and the different approaches to the curriculum. However, attainment at school and local authority level reflect the approach to the curriculum. Crucially, access to wider awards provision (Princes Trust, The Duke of Edinburgh's Award, Open University, and Rural and Urban Training Scheme, among others) may not be equal, so it would be difficult to use this data to measure the attainment gap in the same way as for other measures, but the data could be included more widely in the NIF.

Parental Involvement and Engagement Census

The Parental Involvement and Engagement (PIE) Census is being implemented by local authorities in the 2021/22 academic year, following cancellation in 2020/21 due to school building closures as a result of the pandemic.

Additional data to be collected

Work is underway to continue to broaden and expand the data that is gathered to inform the NIF and improvement planning at local level. There are a number of new datasets that could potentially be included in future iterations of the NIF and which are set out below.

Health and Wellbeing Census

The new Health and Wellbeing Census, delivered through local authorities, will give local areas and the Scottish Government important new data about children and young people's wellbeing. The gathering of health and wellbeing evidence at a local level is essential to enable local authorities to identify and drive forward improvement where it is needed, and to monitor whether improvement happens as a result. The data will first and foremost provide local authorities, schools, and community planning partnerships with a consistent evidence base to assess, monitor, and drive forward improvements in the health and wellbeing outcomes of children and young people. This includes monitoring the impact the Covid pandemic has had on children and young people.

School and early learning workforce

We are exploring options to gain better insight into the views and priorities of staff in school and early learning settings who provide support to the learning and teaching process and the wellbeing of children and young people.

PISA 2022

Scotland will again be participating in PISA which provides an additional measure of national performance for Senior Phase (15 year old) pupils over time. It assesses competence in reading, mathematics and science every three years. Results from PISA 2022 - pushed back from 2021 due to the pandemic - will provide us with reliable data on these key areas, comparable to PISA 2018 and previous cycles. PISA's measure of socio-economic background will also allow comparisons of the effect of deprivation on performance.

Engagement with children and young people

We are developing our approach to learner participation and engagement. It is our intention to co-design a more meaningful feedback loop with children and young people, to one that is youth-led and will enable children and young people to be at the heart of policy development within education.

The intention is for children and young people to have a seat at the table, from this, there will be a wealth of qualitative data to support children and young people's priorities and views when it comes to education policy. Although we are unable to say how this new mechanism of engagement will look, until we have been through

the co-design process, we do anticipate that there will be opportunities to collect quantitative data in a targeted, co-ordinated and more strategic way.

Principles

Our proposals for the key measures are based on a number of key principles:

- we are looking at the difference in attainment between those children and young people from SIMD quintiles 1 and 5. However, we recognise the importance of increasing attainment for all children and are therefore proposing to recalibrate the national stretch aims for all five SIMD quintiles
- focusing on a single measure is neither helpful or meaningful and would provide a false and limited picture
- measures and milestones should be relatively simple to measure and report against
- there needs to be a clear line of sight from the agreed measures and milestones to the key priorities set out in the National Improvement Framework, including the need to place the human rights and needs of every child and young person at the centre of education
- there also needs to be a clear line of sight from the key measures in the NIF, to the strategies and approaches adopted in schools, and local authorities, to improve outcomes for children and young people
- the focus should be across the age ranges – from 3-18
- they should be a credible set of measures – understood to fairly reflect progress in closing the poverty related attainment gap
- the need to avoid perverse incentives through whatever milestones or stretch aims are set.

Questions – key measures

In terms of the existing key measures and sub-measures, we believe it is important to retain the existing 11 key measures to ensure that we do not lose the consistent time series which is crucial for tracking the trends and changes in the data on closing the attainment gap over time. There are some suggestions for additional measures set out in the questions below, but this is not intended to be an exhaustive list. Other suggestions will be welcome.

Q1: Our proposals for the key measures of progress towards closing the poverty related attainment gap are based on a number of key principles set out above. Are there any other principles that should be included?

Q2: Should the two sub-measures covering attendance and exclusion at secondary schools be promoted to key measures?

There are currently four sub-measures covering attendance and exclusion in both primary and secondary schools, and there is a clear pattern of higher exclusion rates and lower attendance for children living in the most deprived areas. This is particularly the case at secondary school and prompts the question about whether to promote the two secondary school sub-measures. If children are not at school, then it is far more difficult to take the steps necessary to close the attainment gap.

Q3: Should data on confidence, resilience, and engagement from the new Health and Wellbeing census be included in the basket of measures?

In terms of health and wellbeing, three of the existing key measures already cover the social, emotional, and behavioural development of children and young people, and four of the fifteen sub-measures cover mental wellbeing. However, there will be data collected from the Health and Wellbeing Census which will be included as part of the indicator of educational attainment in the [National Performance Framework](#).

These are:

- Confidence of children and young people
- Resilience of children and young people
- Engagement in extra-curricular activities

Q4: At the moment, the measure of achievement in the senior phase is the National Qualifications achieved by young people at the point which they leave school (SCQF levels 4, 5, and 6 – 1 or more on leaving school). Do we need to add other measures to cover wider achievement and attainment?

Q5: If you answered yes to Q4, some options for consideration are set out below. However, we would also welcome any other suggestions for additional measures:

Option 1

In response to feedback from users, and to improve the evidence base on the attainment of broader achievements and skills as part of the Curriculum for Excellence, a new ‘all SQA qualifications’ measure has been developed which includes National Qualifications (National Courses, Skills for Work) and other SQA qualifications (Customised Awards, Higher National, National – Workplace, National Certificates, National Progression Awards, Professional Development Awards, Scottish Vocational Qualifications, Ungraded National Courses). Details can be found in [section 6.3 of the School Leaver Attainment and Initial Destinations publication](#). The ‘all SQA qualification’ measure details the proportion of school leavers who attained a number of passes (e.g. one pass or more, two passes or more etc.) at a given SCQF level or better across all of the qualifications outlined above. One or more combination(s) of passes and SCQF levels could potentially be used.

These statistics are currently labelled as Experimental Statistics, reflecting that they are undergoing development and subject to revision based on informed feedback from users.

Option 2

A measure of attainment in vocational qualifications. [Section 6.1 of the School Leaver Attainment and Initial Destinations publication](#) contains a measure covering only ‘vocational’ qualifications. Unlike the existing NIF key measures on school leaver attainment and the ‘all SQA qualifications’ measure outlined above, this measure does not include attainment in National Qualifications but focuses on vocational qualifications. Specifically, the measure includes National Certificates,

Higher National Qualifications, Scottish Vocational Qualifications, National Progression Awards and Skills for Work. It shows the proportion of school leavers with one pass or more at a given SCQF level. The proportion of school leavers with one pass or more at SCQF level 5 or better is used as a Key Performance Indicator for Developing Scotland's Young Workforce.

Q6: In terms of measuring progress beyond school, should the percentage of school leavers going to a “positive destination” on leaving school be included alongside the participation measure?

Positive destinations for young people leaving school include Higher Education, Further Education, Employment, Training, Voluntary Work and Personal Skills Development (whilst other destinations include unemployed and seeking work, unemployed and not seeking work and unknown). These provide valuable information on the activities being undertaken by school leavers. However, they are based on a snapshot of the activity being undertaken by school leavers on a given day and are not the best indicator of long term sustained success for young people accessing future work or study.

That is why the indicator we have used previously is the [Skills Development Scotland Annual Participation Measure](#), which reports on the wider activity of the 16-19 cohort, including those still at school. This is an indicator of school success in preparing young people for access to future work or study.

Questions - wider data

Q7: What more do we need to do in order to ensure that a wider range of measures are in use across the education system, and that they are valued as equally as traditional attainment measures?

We need to consider the value of the wider data (beyond the key measures which have a specific role in measuring the attainment gap) both qualitative and quantitative data (both of which are included in the National Improvement Framework) and the range of evidence needed by schools, education authorities and at the national level in order to fulfil their different requirements.

Q8: Are the existing wider data collections, and the new data developments enough to ensure that the National Improvement Framework reflects the ambitions of Curriculum for Excellence, national policy priorities such as health and wellbeing and confidence, and key priorities for COVID-19 recovery and improvement, as recommended by Audit Scotland?

Q9: How can we make better use of data to focus and drive improvement activity at school, local, regional and national level?

Q10: How can we make better use of data to help reduce variation in outcomes achieved by young people in different parts of the country?

The current variation in the level of improvement identified by Audit Scotland demonstrates that we need to do more to understand what works to drive improvement across all parts of the education system.

Attainment Data

Programme for International Student Assessment (PISA) - student questionnaire)
(every three years).

- Reading performance
- Maths performance
- Science performance

School leaver attainment

- Leaver attainment in national qualifications
- Leaver attainment in vocational qualifications (DYW)
- Foundation Apprenticeships
- Leaver attainment in all SQA qualifications
- Literacy and numeracy (SCQF level 3, 4, 5+)

Achievement of Curriculum for Excellence Levels data

- Literacy
- Numeracy

Scottish Qualifications Authority attainment statistics

- Entries, grades and pass rates

Wider Data

Programme for International Student Assessment (PISA) - student questionnaire)
(every 3 years). Includes questions relating to:

- Bullying
- Satisfaction with life
- Effort
- Competition
- Persistence
- Fear of failure
- Growth mindset
- Meaning to life
- Happiness
- Learning goals
- Self-belief
- Attendance
- Expectations for the future
- ICT use outside of school hours for leisure
- Attitudes to learning
- Feelings about school

- Negative experiences

Pupil census

- Free school meal registration

Healthy Living Survey

- Meals uptake
- Physical education

Growing up in Scotland

- Physical and mental health and wellbeing
- Childcare, education and employment
- Involvement in offending and risky behaviour
- Cognitive, social, emotional and behavioural development
- Home, parenting, family, community and social networks

Health and Wellbeing Census

- Caring responsibilities
- Family relationships/environment
- General health
- Involvement in decision making overall
- Long term health condition
- Physical activity/exercise
- Play
- Pressure of school work
- Resilience
- Sedentary behaviour
- Self perception (body image)
- Sexual health
- Attitudes to school
- Bullying others
- General wellbeing (life satisfaction)
- Mental health
- Peer relations
- Strengths and Difficulties
- Substance use
- Aspirations and career planning
- Social media and online experience

Mental wellbeing score

- 13 year old boys
- 13 year old girls
- 15 year old boys
- 15 year old girls

Attendance, absence and exclusion data (primary and secondary)

Annual participation measure: 16-19 year olds

Scottish Health Survey

- Strengths and difficulties: 4-12 year olds

Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS)

- Strengths and difficulties: 13 & 15 year olds

Initial Destinations

Follow-up Destinations

HMIE inspection data

Care Inspectorate data

Scottish household survey

- Parental satisfaction rates

Local authority and Regional Improvement Collaborative improvement plans and reports.

PIE Census

Attainment Scotland Fund – Headteacher Survey



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This publication is available at www.gov.scot

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The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-80435-413-1 (web only)

Published by The Scottish Government, May 2022

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1055570 (05/22)

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