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# The State of Education – Time to Talk

## An HMC report

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## FOREWORD

Society has changed significantly since the current curriculum was first introduced in 1989. A recent OECD report<sup>1</sup> is clear that “core knowledge, skills, attitudes and values for 2030 will cover not only literacy and numeracy but also data and digital literacy, physical and mental health, and social and environmental skills.” Technology is no longer an optional extra but is now closely woven into every aspect of our lives. Emerging technologies such as Artificial Intelligence, Virtual Reality and Big Data, have changed the ways people work, live, learn, and interact. The vital importance of economic and environmental sustainability is better understood, and globalisation has bound the world even closer together in challenge and opportunity. The workplace is rapidly evolving with a newer emphasis on communication, creativity, critical thinking, and collaboration.<sup>2</sup>

Change inevitably raises questions.

Is our educational provision future-ready and fit for purpose? Are we nurturing the knowledge, skills, attitudes, and values<sup>3</sup> young people need to engage positively with the world that will soon be theirs? What new role could technology play in teaching, learning and assessment? How can we ensure that technology does not itself become a barrier to social mobility?

The COVID-19 pandemic has had a huge impact on learners over the last 18 months. Emerging evidence suggests that it has had a disproportionately negative effect on disadvantaged students,<sup>4</sup> potentially undoing much of the progress made over recent years to close the attainment gap. The pandemic has also given greater exposure and focus to the ongoing debate about fairness in grading, the purpose of assessment, and how we measure achievement.<sup>5</sup>

Are exams in their current form the best way to assess what students know and can do? Is grading fair or even useful if exams are “only reliable to one grade either way”?<sup>6</sup> Is it right that we prioritise restraint of grade inflation over the fortunes of a third of students who fail to get a grade four ‘pass’ in their GCSE English and maths?

The wellbeing, mental health and happiness of young people are also at stake. In a 2020 report, UNICEF produced a wellbeing league table of the world’s top 38 leading global economies. When factoring in mental wellbeing, physical health and skills, the UK ranked a lowly 27th.<sup>7</sup>

Might there be a connection between mental ill-health, the school curriculum, and current models of assessment? How could we adapt our approach to both learning and assessment in the light of recent research into the development of the teenage brain?<sup>8</sup>

So much has changed since the framework for our current model of curriculum and assessment was devised. It is timely that we pause and reflect on its effectiveness to ensure our approach is best suited to serving the needs of present and future generations.

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<sup>1</sup>OECD, Future of Education and Skills 2030, Conceptual learning framework, 2019

<sup>2</sup> Edureach, [4Cs of 21st century learning](#)

<sup>3</sup> OECD, Future of Education and Skills 2030, Conceptual learning framework, 2019

<sup>4</sup> EEF, [Best evidence on impact of Covid-19 on pupil attainment](#), June 2021

<sup>5</sup> BERA, [This is not a one-year blip: If we have to have a national assessment system, it shouldn't be this one](#), August 2020

<sup>6</sup> Glenys Stacey, Dame. [Q1058 Education Select Committee](#), 2 September 2020

<sup>7</sup> UNICEF, [Worlds of Influence, Understanding What Shapes Child Well-being in Rich Countries](#), 2020

<sup>8</sup> Edge, [The Adolescent Brain](#), Oct 2021

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**HMC** is a membership body for 360 school leaders around the world, promoting the contribution those schools, their staff, and their pupils make to their local communities.

**Cicero/amo** is a full-service communications and market research agency that design and deliver award-winning corporate, brand, political and regulatory campaigns across all major business sectors from offices in London, Brussels, and Dublin.

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**Disclaimer** - This report is the work of the author, based on responses from 450 senior leaders and teachers, working directly in education, and does not necessarily represent the views of all 360 members of HMC.

## **SUMMARY**

### **Introduction**

The success of students in school and in life beyond is influenced by the way they interact with the learning process and the opportunities they are given for progression and personal development. The curriculum lies at the heart of this, and so too does assessment. The way we examine determines to a large extent the way we teach. It influences what and how students learn, and the skills they develop.

The educational reforms announced in 2010 were designed to herald a new era in curriculum and assessment. Reformed GCSEs and A-levels, introduced from 2016, emphasise the importance of grammar and mathematical skills. Content has grown to become more challenging, and there are stricter controls over grade inflation. Cultural entitlement and the ability to converse in a foreign language are all supposed to be part of a vision for an academic education that is intended to empower and inspire new generations of young people.<sup>8</sup>

Nick Gibb, Minister of State for School Standards between 2010 and 2021, said: “Before 2010, pupils’ future life chances were being sacrificed for an illusion of success, which served short-term political expediency. Our objective ... from that date onwards has always been to help build an education system that instead is designed for the long-term benefit of pupils.”<sup>9</sup>

The survey on which the following research is based was undertaken by Cicero/amo and HMC. It focused on the success of these objectives and offered respondents the opportunity to reflect on the purposes of curriculum and assessment in a fast-changing, post-pandemic world. The findings are stark. They show significant concern across sectors (maintained and independent) that both curriculum and assessment are falling short in serving the needs of young people and in developing the core knowledge, skills, attitudes, and values they need.

We must rebalance what is learned in schools and how we assess that learning if all young people are to thrive in a complex world.

### **Methodology**

In July 2021 HMC Schools and Cicero/amo undertook a detailed online survey of school Senior Leadership Teams (SLTs) and teachers to explore their views on:

- The purpose of education
- Meeting the needs of learners
- Supporting personal development
- Motivating learners
- Inclusion
- The purpose and effectiveness of assessment
- The application of skills to everyday life
- The role for technology
- The perceived need for educational reform

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<sup>9</sup> Nick Gibb MP, [The importance of the curriculum](#), April 2016

Independent schools were invited to respond via HMC and GSA<sup>10</sup> communications networks, while maintained schools, academies and free schools were accessed through local partnerships and with the support of ASCL.<sup>11</sup>

In total, we surveyed 790 individuals from across a range of educational settings, with 450 responses received directly from school Senior Leadership Teams (SLTs) and teachers more widely. The breakdown of respondents' profiles and responses can be found in Appendix 1.

## Key Findings

The survey responses suggest a significant disconnect between what teachers and educators think education should be for, and what the current system is delivering.

1. The purpose of education is seen as much more than the acquisition of knowledge and learning skills. The development of a wide range of attitudes, skills and values is also strongly supported. The current system, however, is perceived as focusing too much on qualifications at the expense of broader aims, and thereby as falling significantly short in preparing young people to thrive in the 21<sup>st</sup> century.
2. There are concerns about how well the education system develops wellbeing, both mental and physical. It is also seen as falling short in promoting the values, creativity, and critical thinking & problem-solving skills young people need for personal agency and to play an active role in creating a respectful, tolerant and sustainable world.<sup>12</sup>
3. We are failing to motivate students by responding effectively to their needs.
4. The educational system does not adequately meet the needs of diverse learners, including those with disabilities. Neurodiversity, mental health, and economic status remain the biggest blockers to securing equal opportunities in the education system today.
5. Assessment in its current form is too narrowly focused and is being used for the wrong ends. Exams are more successful in serving the purposes of university selection and employers than in encouraging learner development or in motivating engagement in education.
6. There is positive endorsement for further research into the use of technology to improve access to learning and assessment.
7. 94% of respondents believe GCSEs either need complete or partial reform. There is strong support for the teaching profession to play a lead role in reform, alongside other key stakeholders in education.

## Summary of Proposed Next Steps

Government should appoint an individual or organisation to lead a widespread consultation process with teachers, students, businesses, employers, universities, wellbeing experts, neuroscientists, and others on reform of curriculum and assessment. Consultation should be based on the following principles: Curriculum and assessment must be *rigorous*, and *coherent*, offering *high quality, easily navigable* pathways. These pathways should be *valued* by all stakeholders and encourage *aspiration and life-long learning*.<sup>13</sup>

The consultation should report to the Secretary of State for Education with urgency. This apolitical consultation process should:

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<sup>10</sup> Girls' School Association

<sup>11</sup> Association of School and College Leaders

<sup>12</sup> University, D. (2019). Durham Commission on Creativity and Education

<sup>13</sup> EDSK, Reassessing the Future, 2021

1. Evaluate how curriculum and assessment can be reformed to enable all young people to thrive in the 21<sup>st</sup> century. Knowledge and learning skills are important, but focus should also be placed on personal development and wellbeing, and on the creativity, problem-solving skills, critical thinking and values needed for personal agency and active, ethical citizenship in a respectful, tolerant, and sustainable world.
2. Address concerns about mental and physical health and wellbeing, in consultation with wellbeing experts and neuroscientists.
3. Research how best we motivate and engage young people in the learning process.
4. Focus on prioritising inclusion and meeting the needs of every student.
5. Consider how educators can be supported with the resources and training to enable them to fulfil the holistic educational role they seek.
6. Create a mechanism which enables teachers, students, and others to contribute to ongoing conversations about the future of education.
7. Explore the role of Ed-Tech in teaching, learning and assessment, paying careful heed to its ethical and practical implications.

## KEY FINDINGS

### 1. A CURRICULUM FOR A COMPLEX WORLD

#### Context and summary

The OECD report, *Future of Education and Skills 2030*<sup>14</sup> references the importance of a range of knowledge, skills, attitudes and values, as ‘essential for thriving in the 21<sup>st</sup> century’. Our research also suggests consensus that education should go well beyond the acquisition of knowledge and learning skills. Fostering a love of learning, building resilience, and developing self-esteem and confidence are all seen by respondents as part of the purpose of education, alongside the acquisition of skills for life, work, and personal wellbeing. The perceived role of educators similarly reinforces the importance of a holistic approach.<sup>15</sup>

The skills highlighted in the OECD report include, among other things, creativity, responsibility, the ability to “learn how to learn”, empathy, self-awareness, respect for others and the ability to communicate. Our research suggests that the current educational system is falling short in all these areas (see the tables below). It also shows concern that it is not sufficiently supporting the development of wellbeing, both physical and mental. The Durham Commission on Creativity in Education<sup>16</sup> comes to a similar conclusion. “Much has been achieved in our education system to improve academic standards, but respondents to the Commission’s research argued that this has been at the expense of nurturing the creativity of our young people, neglecting the development of the skills, knowledge, understanding and experiences which they will need in the world beyond school, and which our economy, culture and society need to flourish.”

We need to re-evaluate our approach if we are to prepare learners to thrive and to engage actively in forging a sustainable future in a complex and changing world.

#### a) The purpose of education

Our findings reveal a significant gap between the broad purposes of education and current reality.

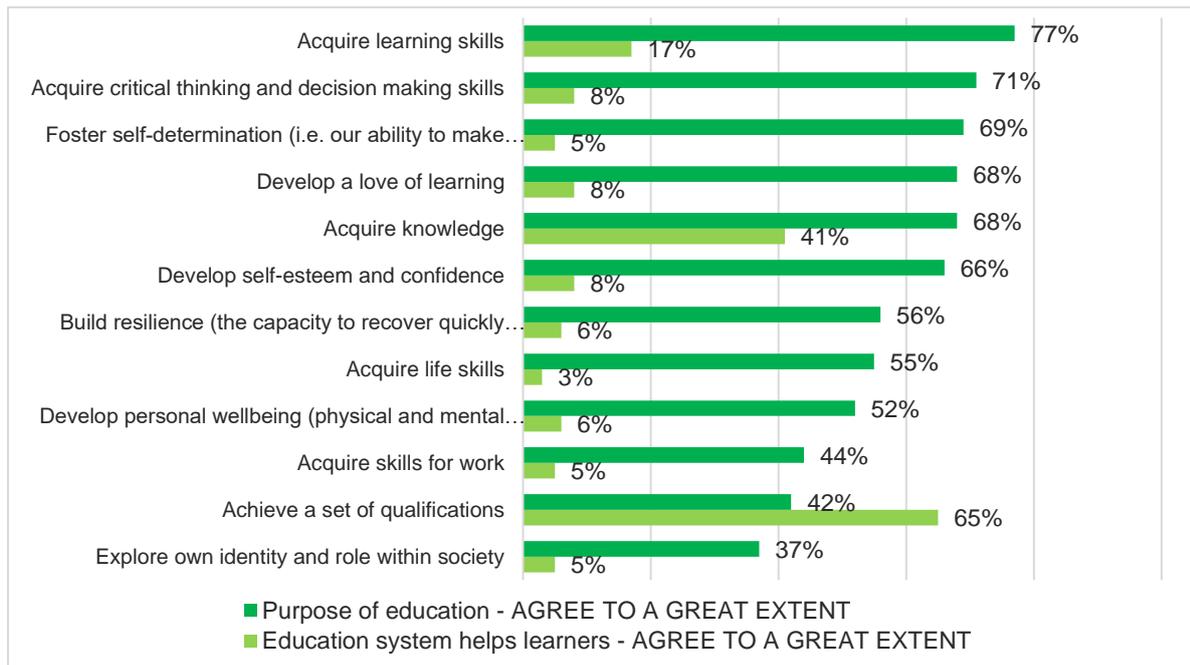
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<sup>14</sup> OECD, *Future of Education and Skills 2030*, Conceptual learning framework, 2019

<sup>15</sup> APPENDIX 2

<sup>16</sup> University, D. (2019). Durham Commission on Creativity and Education

**Figure 1: The extent to which the curriculum is fulfilling the aims of education**



**Q: To what extent do you agree that the purpose of education is to ...?**

**Q: To what extent do you believe the current education system helps learners to ...?**

People feel that the current educational system is far more likely to encourage the acquisition of knowledge than the development of critical thinking or learning skills. This is worrying if we are to develop in future generations the ability to interpret information, to distinguish fact from fiction, and to acquire the habits of mind that will enable complex problem-solving, which is so important given the challenges we face.<sup>17</sup>

Fewer than one-in-ten respondents strongly agree that the current system develops a love of learning. Life-long learning is essential if young people are to reskill or upskill themselves in adulthood, which is vital for the world in which we live and work.<sup>18</sup>

Our research demonstrates that we are falling a long way short in developing the skills and knowledge young people need to succeed at work and in life. Only 5% of respondents strongly agree that the current system encourages the acquisition of skills for work and just 3% strongly agree it helps develop skills for life. These findings are mirrored in a 2019 study from the CBI<sup>19</sup> which, amongst other things, calls upon Government to rethink qualifications including GCSEs.

Few strongly agree that the education system is helping learners with their personal development, including physical and mental wellbeing, self-esteem, confidence and resilience. This is mirrored in the low scores given to self-determination, and to opportunities for students to explore their identity and role in society.

The system is seen as working best in delivering qualifications, despite these being ranked lowest in the survey as a priority in education. Arguably, qualifications should be a by-product of the broader purposes of education that validate the process, rather than an end in themselves.

<sup>17</sup> Drake, S., Reid, J. (2021). [Thinking now: Transdisciplinary thinking as a disposition](#). Academia Letters, Article 387

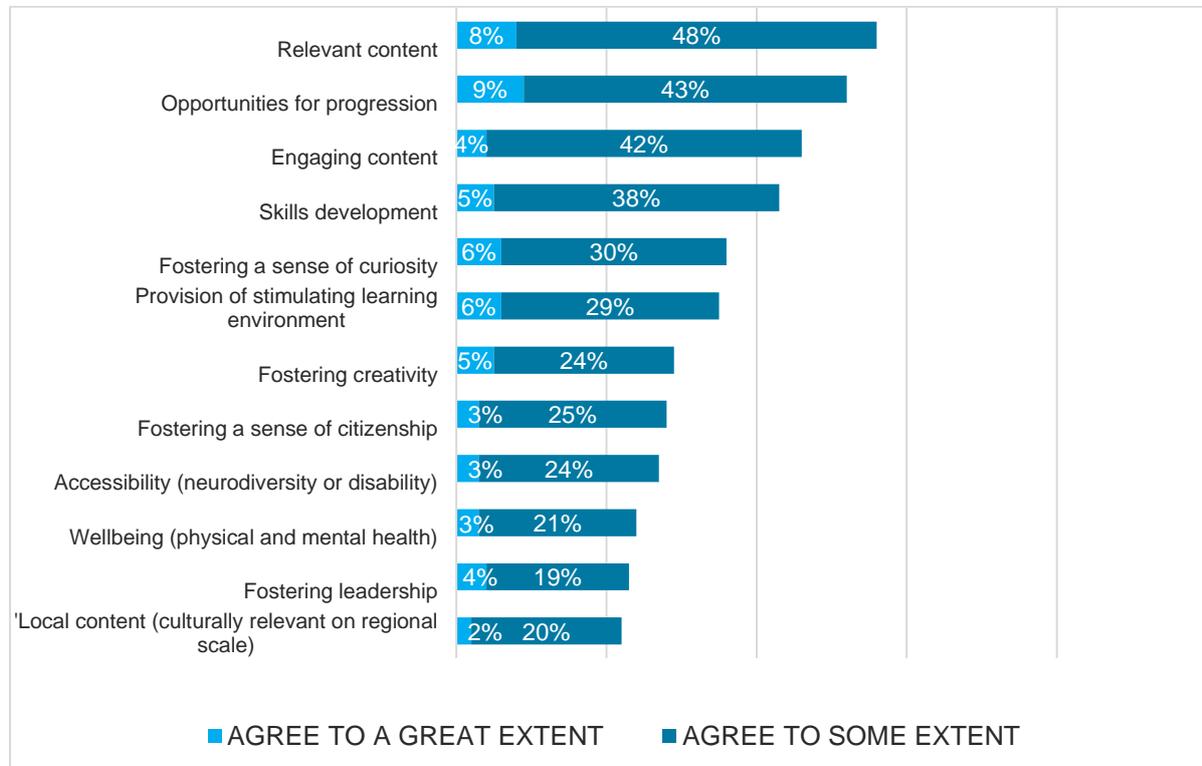
<sup>18</sup> Laal, M. (2012) [Benefits of Lifelong Learning](#), *Procedia – Social and Behavioral Sciences*

<sup>19</sup> CBI, [Getting Young People 'Work Ready'](#), June 2019

## b) Meeting the needs of learners

Our findings highlight several concerns with how far the national curriculum is currently meeting the needs of learners.

**Figure 2: Extent to which the national curriculum meets the needs of learners**



### **Q. To what extent do you feel that the current national curriculum meets the needs of learners in terms of each of the following ...?**

Fewer than two-in-five respondents agree that the current curriculum fosters a sense of curiosity or creativity. According to Paulo Freire,<sup>20</sup> “The foundation stone of the whole (educational) process is human curiosity. This is what makes me question, know, act, ask again, recognise.” The ‘critical curiosity’ he describes underpins our agency as learners and as active citizens.

The Durham Commission on Creativity and Education<sup>21</sup> highlights the importance of creativity, which is defined as “the ability to think laterally and come up with imaginative solutions, to work across disciplines (and) to enjoy constructive play.” “At a personal level, young people need the enterprise and confidence that creativity encourages, if they are to thrive in a world in which they will change jobs more frequently than in previous generations.” Creativity is linked to enterprise and entrepreneurship, “(it) is now one of the most sought-after clusters of skills for all employers.” It is also vital if we are to equip young people with the skills they need to respond to the challenges of digital change and to develop innovative, sustainable solutions to the problems the world faces.

Creativity is not understood as in opposition to rigour or to the acquisition of knowledge. “Every meaningful creative breakthrough in human history has been made by people with deep expertise, immersing themselves in the practices and problems of the field and finding new ways to see, act or behave.” Instead, it should be seen as part of the learning process, encouraging the questioning,

<sup>20</sup> Freire, Paulo (1996) *Pedagogy of Freedom: Ethics, Democracy and Civic Courage*

<sup>21</sup> University, D. (2019). *Durham Commission on Creativity and Education*

curious, problem-solving mind-set that enables learners to think laterally and across disciplines and to apply their understanding in innovative ways.

The Durham Commission also highlights the importance of the creative and performing arts and cultural creativity in nurturing personal growth, spiritual and mental wellbeing, and resilience. “Young people find strength, inspiration, consolation and community in their shared experience of creativity.”

That only 5% of respondents strongly feel that our current curriculum is fostering a sense of creativity is of significant concern.

The very low scores associated with the success of the national curriculum in promoting physical and mental wellbeing and the needs of those with disabilities are also problematic. This is a recurrent theme throughout our research and paints a worrying picture – particularly given the statistics in the previously cited UNICEF report. This highlights that fewer than two thirds of 15-year-olds in the UK have a high life satisfaction score, far lower than global leaders, The Netherlands.<sup>22</sup>

There is a perceived lack of opportunity for progression. The scores for relevant and engaging content are also low. These findings correlate with figure 11, which tabulates the top five identified ways in which the national curriculum could be improved. A desire for greater flexibility in designing curricula in response to student needs comes out strongly as a suggestion for future reform. The importance of putting the needs of learners at the centre of the educational process is a recurrent message in the survey.

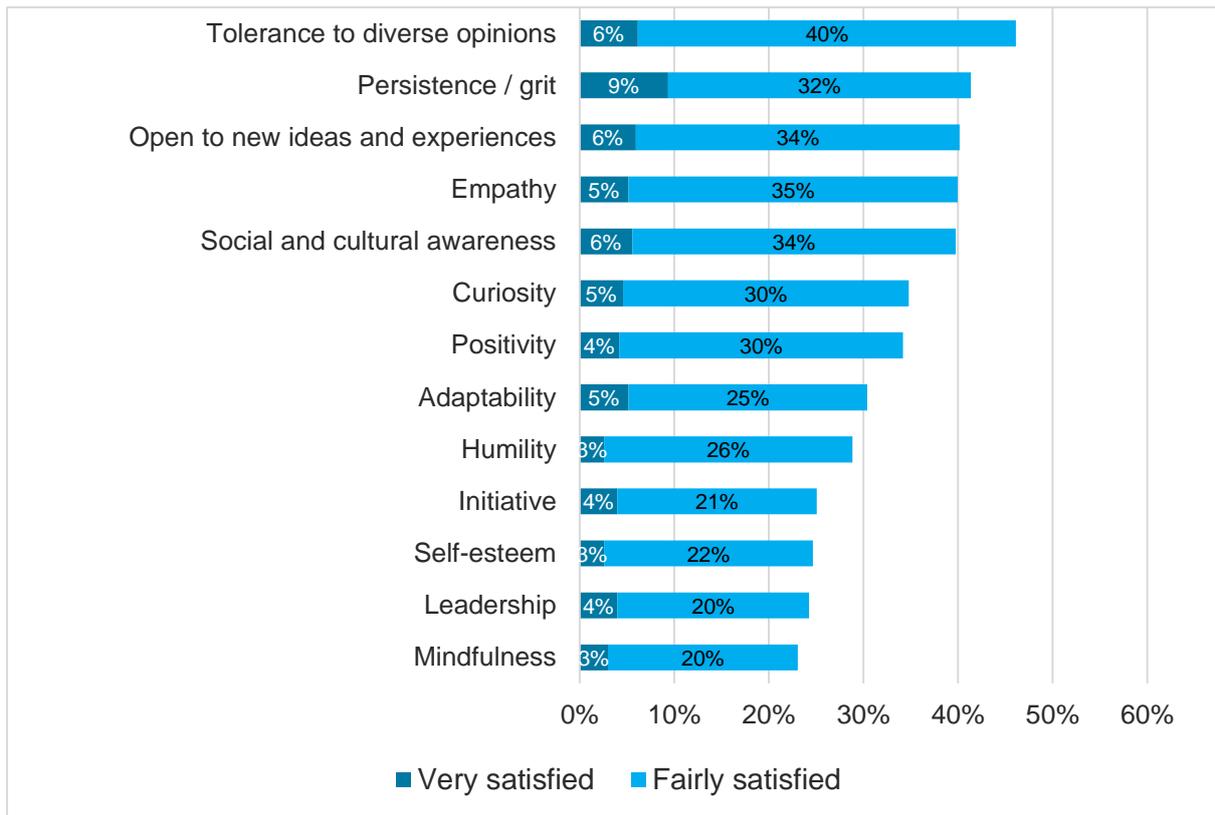
### **Supporting personal development**

The chart below is one of the starkest in our research and underlines how far we are falling short in developing the dispositions and characteristics young people need.

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<sup>22</sup> UNICEF, [Worlds of Influence, Understanding What Shapes Child Well-being in Rich Countries](#), 2020

**Figure 3: Extent to which the current curriculum supports personal development**



***Q. To what extent are you satisfied with the way the national curriculum supports learners to develop each of the following characteristics?***

To thrive in the 21<sup>st</sup> century, young people need positivity, self-esteem, and mindfulness. Leadership skills, empathy, initiative, adaptability, and grit are important for the workplace and beyond.<sup>23</sup> The co-curriculum can be rich in this sort of learning, but our data suggests a need to explore more deeply the role of the curriculum in promoting personal growth and wellbeing.

The relatively low scores given to tolerance of diverse opinions, social and cultural awareness, openness to new ideas, and humility are concerning given the current divisions in public opinion and in society.<sup>24</sup> Our curriculum must respond if we are to create a new generation which is capable of reconciling difference and in working together profitably and respectfully.

<sup>23</sup> Lamb, Maire & Doecke, [Key Skills for the 21<sup>st</sup> Century: an evidence-based review](#), 2017

<sup>24</sup> UCL, [Extreme views are widespread in classrooms](#), September 2021

## 2. ENGAGED LEARNERS

### Context and summary

Students need to feel invested in the learning process if they are to make progress. High levels of engagement and motivation are key to successful outcomes.

Research into the attitudes and experiences of Generation Z-ers suggests that students born after 1995 have a very different outlook to the young people for whom GCSEs and A-levels were originally designed.<sup>25</sup> More so than Millennials, Generation Z-ers are digital natives, with all the positives and negatives of increased screen time and easy access to information. They network and learn in different ways and are unlikely to accept authority or extrinsic imperatives at face value. They face different problems, their futures and prospects impacted to a greater extent by the digital revolution and technological change. They are also more socially minded and concerned about sustainability, and they recognise their responsibility in shaping an equitable future. Their outlook and needs are substantially different from those of children born in earlier decades. Traditional approaches to curriculum and assessment are much less likely either to engage their interest, or to respond adequately to the challenges they will face.

An important finding of the survey is the perceived weight the current educational system places on extrinsic rewards rather than intrinsic motivation. This suggests real issues with learner engagement.<sup>26</sup> Our respondents also communicate a deep sense of frustration with regards to the fairness and equity of the current education system, suggesting that we have a long way to go if we wish our provision to be truly inclusive.

#### a) Motivation

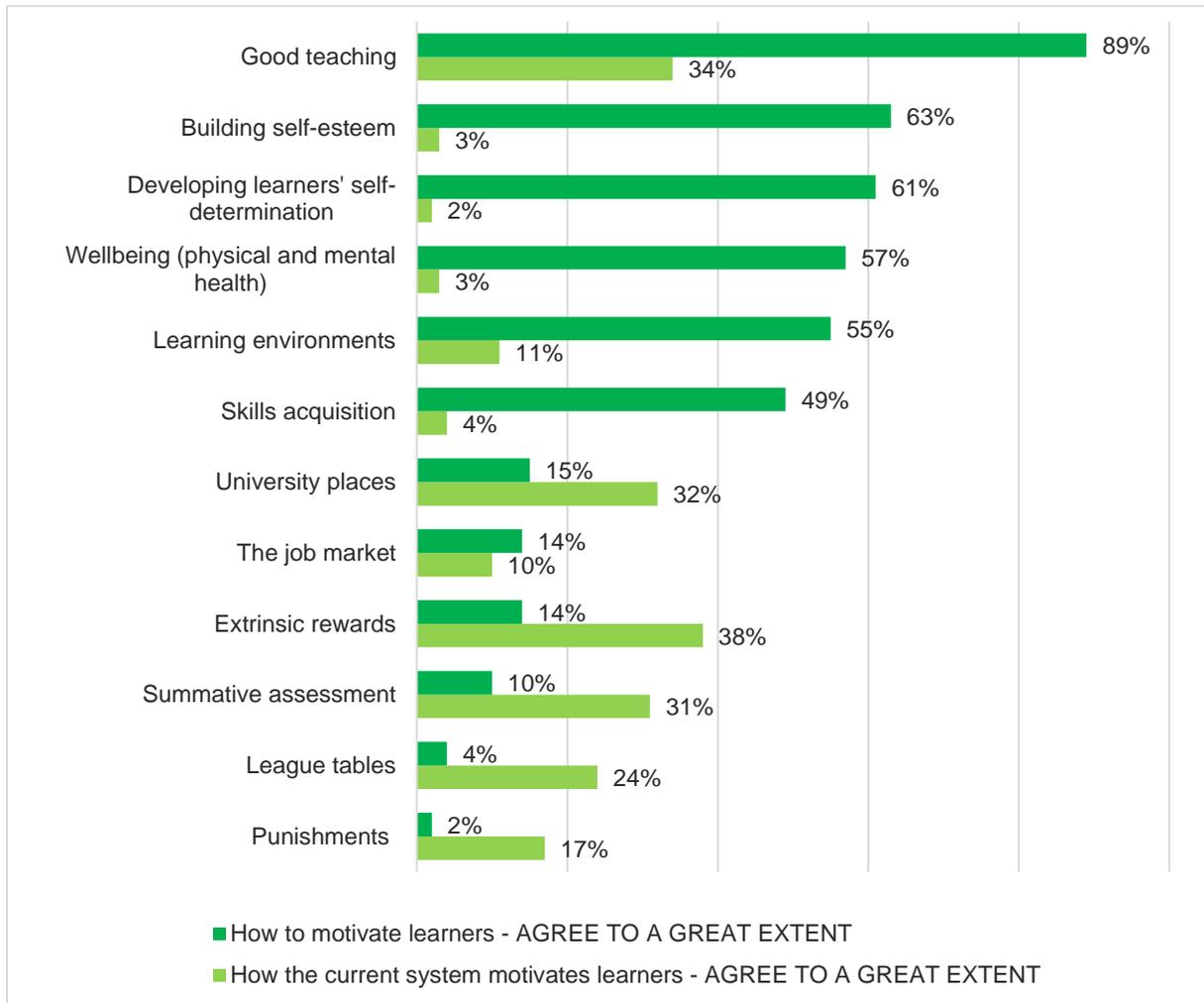
Our findings suggest that we are failing to motivate learners effectively and we are missing opportunities to engage their interest in the learning process.

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<sup>25</sup> The Annie E. Casey Foundation, [What Are the Core Characteristics of Generation Z?](#), April 2021

<sup>26</sup> Jennifer Groff, [The Nature of Learning – Practitioner Guide](#), p4-5, 2012

**Figure 4: How the education system should motivate learners vs. how the current system does motivate learners**



**Q: To what extent do you feel that each of the following should be how we motivate learners?**  
**Q: In what ways do you feel the current education system motivates learners?**

Good teaching is seen as fundamental to motivating learners.<sup>27</sup> Teachers are our biggest asset, and we must ensure that we demonstrate and acknowledge their value. However, while 89% strongly agree that good teaching should motivate learners, just 34% strongly agree that this is currently the case. Supporting teachers to do their job effectively is crucial. This means giving them the resources, time, and training they need and opportunity and space to concentrate on their core roles.

The acquisition of qualities that will last a lifetime (self-esteem, self-determination, wellbeing, and skills) are considered key to motivating learners. However, fewer than one-in-ten agree to a great extent that the current system promotes these adequately. Instead, extrinsic rewards, such as the lure of university places and qualifications (summative assessment), which feature as much lower priorities, are currently seen as the biggest drivers within education. This mismatch is significant. If

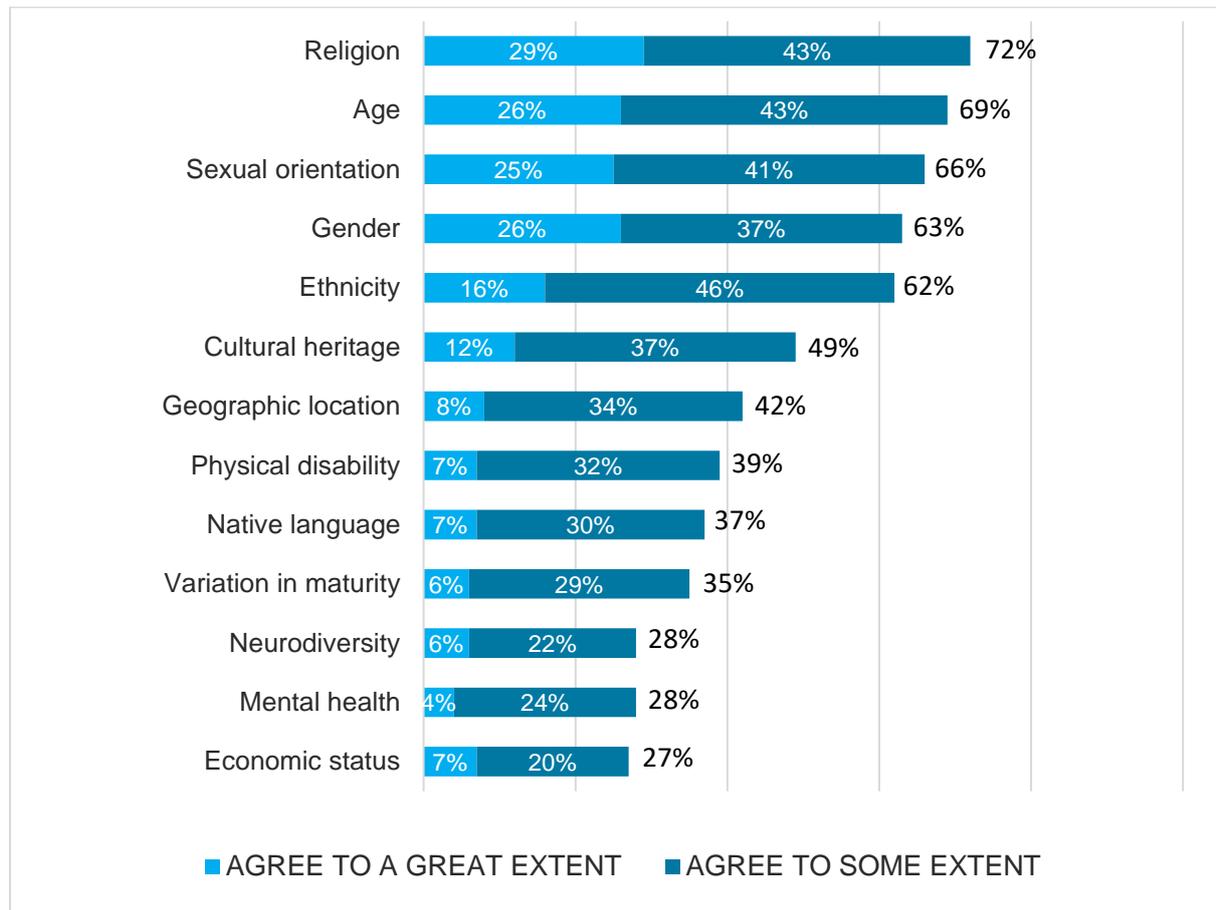
<sup>27</sup> The Sutton Trust, [What Makes Great Teaching?](#), October 2014

students are not sufficiently motivated, or if they do not buy-in to the norms the education system promotes, they are unlikely to succeed,<sup>28</sup>compounding issues linked to social mobility.

**b) Inclusion**

Our findings highlight a perception that the current system is failing to afford equal opportunities to all learners.

**Figure 5: Extent to which the current education system is seen to offer equal opportunities**



**Q: To what extent do you feel that the current education system offers equal opportunities of all learners regardless of ...?**

There are current concerns about a growing gender divide at GCSE.<sup>29</sup> This finds echo in the data collected here. Our current approach to curriculum and assessment appears to favour girls over boys and the reasons for this require further research.

Minority ethnic and cultural backgrounds are viewed by respondents as having an adverse impact on the experience of learners. Clearly many children whose first language is not English experience real difficulties too.

It is sad to note that the scores relating to religious difference and sexual orientation are not higher. These findings suggest that the current methods we employ to teach about diversity and encourage inclusion are unsuccessful in creating the inclusive, tolerant, respectful world to which we aspire.

<sup>28</sup> ASCL & Learnus, [Maximising the Potential of the Adolescent Brain](#), February 2018

<sup>29</sup> J4MB, [Boys losing out at A-level is a sign of bias in grading system](#), 23 August 2021

Respondents feel that age and variation in maturity matter, giving weight to the arguments of those who wish to see greater personalisation in education and assessment offered when candidates are ready rather than by standardised curriculum stage.

Geographic location and economic status continue to be seen as barriers to success.<sup>30</sup> Any reform must ensure that learners across the UK are able to access the same high standard of education, irrespective of location or socio-economic background. Many would agree we have a long way to go before social mobility becomes a reality.

Finally, some of the lowest scores are assigned to physical disability, neurodiversity, and mental health. Learners facing challenges of this nature are potentially at the greatest risk of poor educational outcomes<sup>31</sup> and of educational exclusion, and there is significant concern that we are not meeting their needs effectively.

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<sup>30</sup> Perry & McConney, [Does the SES of the School Matter? An Examination of Socioeconomic Status and Student Achievement Using PISA 2003](#), 2010

<sup>31</sup> UCL, [Study links poor mental health to educational outcomes](#), February 2019

### 3. STRENGTHS-BASED ASSESSMENT

#### Context and summary

Formative assessment is central to effective teaching and learning.<sup>32</sup> It creates a dialogue between teacher and student and provides a mechanism by which students progress. Summative assessment, the focus of this survey, evaluates achievement at the end of a course, and enables a student's performance to be quantified and compared to that of others.<sup>33</sup> Summative assessment is important, not only because grades impact future opportunities, but also because the way we assess influences the approach we take to teaching and learning.

The purpose of learner assessment sits at the heart of the current debate. Currently, it serves several purposes, providing information for selection boards in schools, colleges, universities and for the workplace, as well as recording individual achievement. This risks introducing a conflict of interest, which is implicit in the results below. The survey suggests that assessment is currently focused less on the needs of learners and more on providing evidence to rank the performance of students and schools, and to enable selection by universities and future employers.

Respondents also feel the current system is failing to develop the breadth of skills and competencies young people need to thrive in the 21<sup>st</sup> century. This is perhaps unsurprising. The challenges we face and the framework within which we operate are very different to when GCSEs and A-levels were first designed. So much has changed, including our understanding of sustainability and the impact of climate change, and the way technology is influencing our lives. Our findings suggest that both curriculum *and* assessment need re-thinking if students are to develop the skills and understanding they need to navigate their futures successfully and to play their part as active citizens in a sustainable world.

#### a) The purpose and effectiveness of assessment

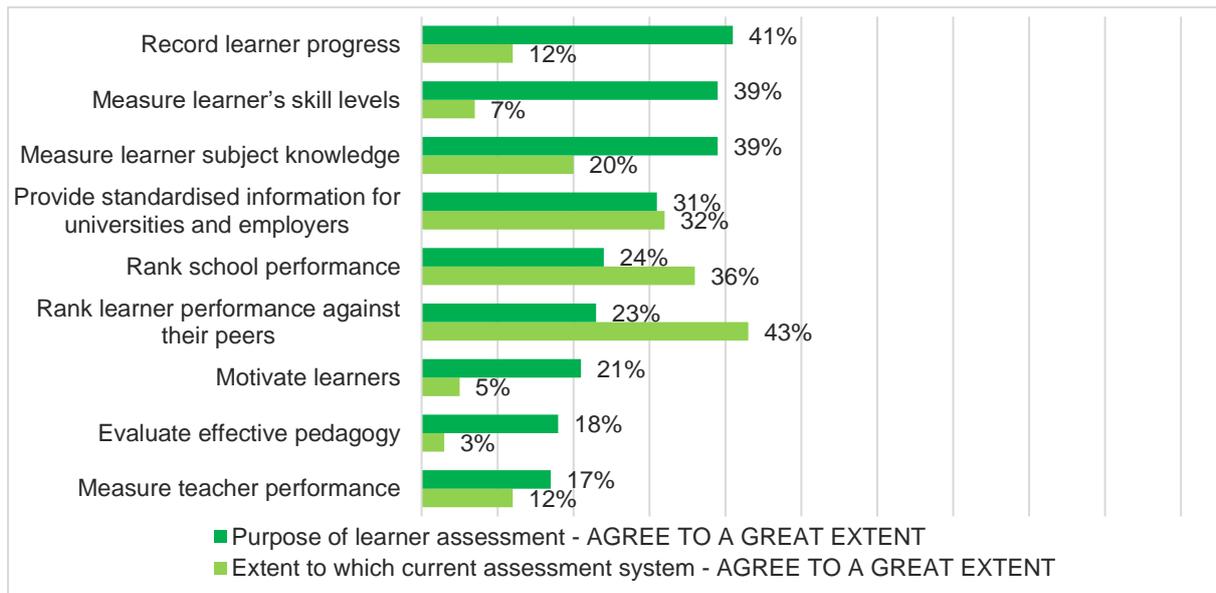
This research suggests an inverse relationship between what people believe the purpose of assessment should be, and current outcomes.

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<sup>32</sup> John Hattie, Helen Temperley, [The Power of Feedback](#), 2007

<sup>33</sup> Teach First, [Summative assessment](#), 2021

**Figure 6: The perceived purpose of learner assessment vs. its current effectiveness**



**Q. To what extent do you believe the purpose of learner assessment is to...?**

**Q. To what extent do you believe the current system of assessment in the UK effectively...?**

The top three identified roles for assessment are student focused – recording learner progress (41%), measuring skill levels (39%), and subject knowledge (39%). By contrast, however, assessment is seen as at its most effective in ranking learner and school performance and in providing standardised information to universities and employers.

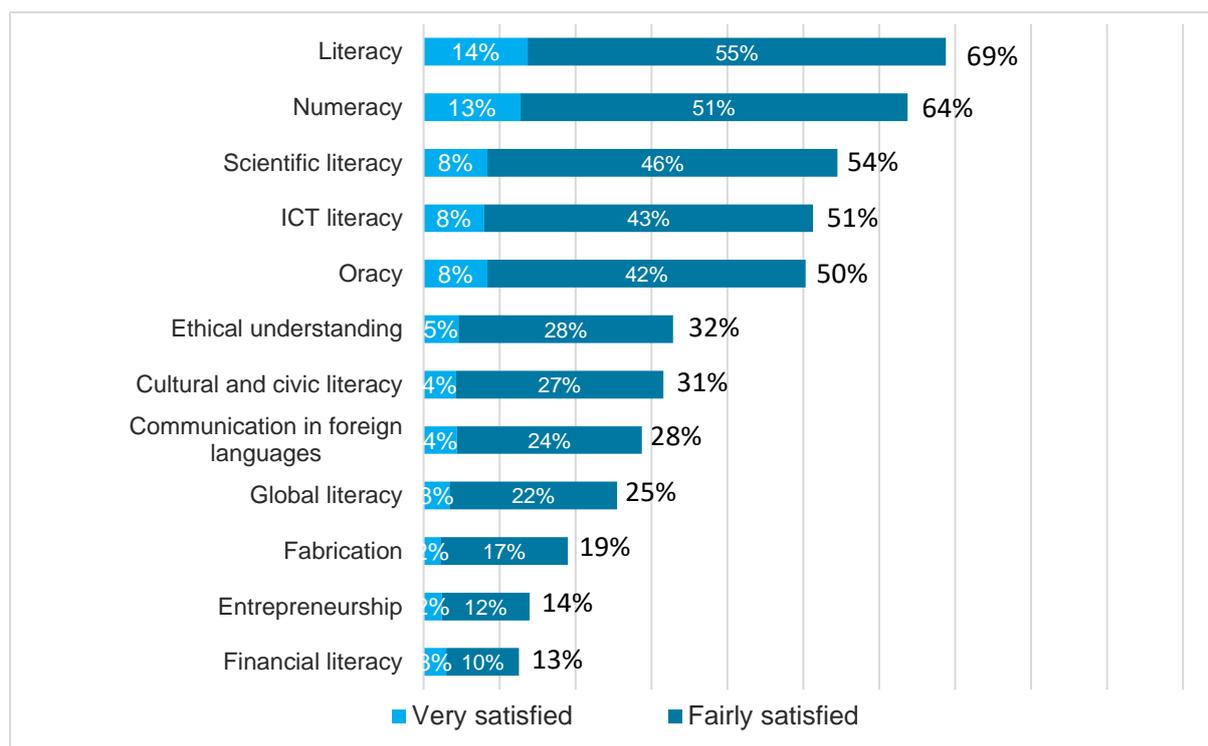
It would be interesting to explore whether universities and employers feel well served by the system.<sup>34</sup> The extent to which we effectively assess skill levels or record learner progress provides a clear indication to the contrary. Just 7% of respondents strongly agree that assessment currently measures skill levels successfully and only 20% strongly agree that it measures student knowledge effectively. If all this is true, the value of our current assessment system becomes even more questionable.

**b) The application of skills to everyday tasks**

Concerns with assessment are further highlighted by the low levels of satisfaction with the way GCSE candidates are seen as able to apply the skills they learn to everyday tasks.

<sup>34</sup> CBI, [Getting Young People 'Work Ready'](#), June 2019

**Figure 7: Satisfaction with how GCSE learners can apply skills to everyday tasks**



**Q. To what extent are you satisfied with regards to how GCSE learners can apply the following skills to everyday tasks?**

Literacy and numeracy come out best in this chart. This is unsurprising given the focus they receive in our curriculum. What is surprising, however, is that the scores are not higher. More thought needs to be given to creating opportunities in which knowledge and skills can be applied and developed so they are embedded as useful tools, enabling young people to engage effectively and creatively with the world around them.

STEM subjects, including science, fare less well and ICT literacy looks weak in preparing students for a world in which digital skills are at a premium.<sup>35</sup> This latter point is even more problematic in light of a recent decline in entries in GCSE computing.<sup>36</sup> The Durham Commission on Creativity in Education emphasises this point in its second report in 2021.<sup>37</sup> It concludes that the shift to remote working has accelerated changes in society and the economy, and that “as such, digital literacy and the creative use of technology are essential skills for young people.”

Teachers have long raised warnings over the lack of focus on oracy in our curriculum, a concern which is corroborated by our findings. The ability to communicate verbally, debate, argue and present is an important skill set, but appears under-developed and under-rewarded in our current system.<sup>38</sup>

Levels of satisfaction with communication in modern foreign languages are also very low and yet international collaboration and understanding are vital for the future. It is not enough to say that

<sup>35</sup> CBI, [Delivering Skills for the New Economy](#), June 2019

<sup>36</sup> Computer Weekly, [Drop in number of students taking GCSE computing in 2020](#), August 2020

<sup>37</sup> University, D. (2021). Durham Commission on Creativity and Education.

<sup>38</sup> Oracy APPG, [Speak for Change Inquiry](#), April 2021

English is the global lingua franca. Culturally and practically the UK will lose out post-Brexit unless we can inspire future generations to view foreign language acquisition as an essential skill.

Financial literacy and entrepreneurship also perform poorly. Students should be able to manage their personal finances in adulthood, and we need to encourage a mindset that instils confidence in entrepreneurship and in taking on new business challenges.

Only 2% of respondents are very satisfied with the way our curriculum is developing practical skills. While our research does not explicitly explore the balance between academic and technical and vocational qualifications at GCSE, those students with a preference for practical skills appear to be particularly badly served. Recent educational reforms have supposed that a stress on academic qualifications up to 16+ is the best preparation for all young people.<sup>39</sup> These findings, in combination with the low motivation of learners explored in Section 2 of our report, suggests that we are getting this wrong.<sup>40</sup>

Furthermore, the findings suggest the curriculum does not help students gain the ethical understanding and civic literacy they need for their lives beyond school. There are already calls for a greater emphasis on sustainability in the curriculum,<sup>41</sup> and advice on how schools should respond.<sup>42</sup> The climate crisis and associated pressures on populations and resources are not the only deep and difficult issues facing our society. Concern about social justice has not diminished, and there are calls for curriculum content to recognise greater diversity in our society. The fast pace of digital change has practical, ethical and safety dimensions too.<sup>43</sup> A recent report by the Institute of Education suggests that “extreme views are widespread in classrooms but that schools across England lack the resources and training to teach pupils how to reject and discuss dangerous extremist views and ideologies.”<sup>44</sup> These are issues which should feature much more strongly if we are to prepare future generations for the challenges and choices they will face.

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<sup>39</sup> Nick Gibb MP, [The importance of the curriculum](#), April 2016

<sup>40</sup> BBC News, [Reckless to Scrap BTecs, Educators Warn](#), July 2021

<sup>41</sup> Wals, A. E., & Benavot, A., Can we meet the sustainability challenges? The role of education and lifelong learning. *European Journal of Education*, 52(4), 404-413, 2017

<sup>42</sup> OXFAM, [The sustainability Goals: Guide for Teachers](#), 2019

<sup>43</sup> IoTUK, [Digital Ethics – Balancing the Risks and Opportunities](#), October 2018

<sup>44</sup> UCL, [Extreme views are widespread in classrooms in England](#), September 2021

## 4. THE ROLE FOR TECHNOLOGY

### Context and summary

Covid-19 and its associated waves of school closures has accelerated our understanding of the role EdTech can play in teaching and learning. It has shown how we might harness its power to bring people together across geographical divides, and to encourage collaboration and sharing ideas. Research into the role of Artificial Intelligence in education is also yielding results, suggesting new possibilities for personalising education and in democratising access to high quality learning resources.

Our research indicates appetite for further exploration of the role of new technologies in education, both in the curriculum and in assessment.

It is interesting to conjecture what form assessment might have taken had today's technology been available when GCSEs were devised. The ongoing discussions at Parliamentary level<sup>45</sup>, and the education industry's adoption of platforms such as *Duolingo*<sup>46</sup>, have shown that Artificial Intelligence can be a very useful tool in formative assessment which is central to learner development.<sup>47</sup> Adaptive testing is now commonly used in psychometric and intelligence tests as well.

The possibility of integrating technology more closely in the education system is exciting, but it carries with it associated ethical and moral implications.<sup>48</sup> While this falls beyond the scope of this report, these considerations are an essential component of our future with EdTech and need careful exploration before we embark on further change.

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<sup>45</sup> Big Innovation Centre, [AI in Education, Designing fair and robust AI-based assessment systems](#), November 2020

<sup>46</sup> Further information on the research basis for Duolingo can be found at <https://research.duolingo.com/>

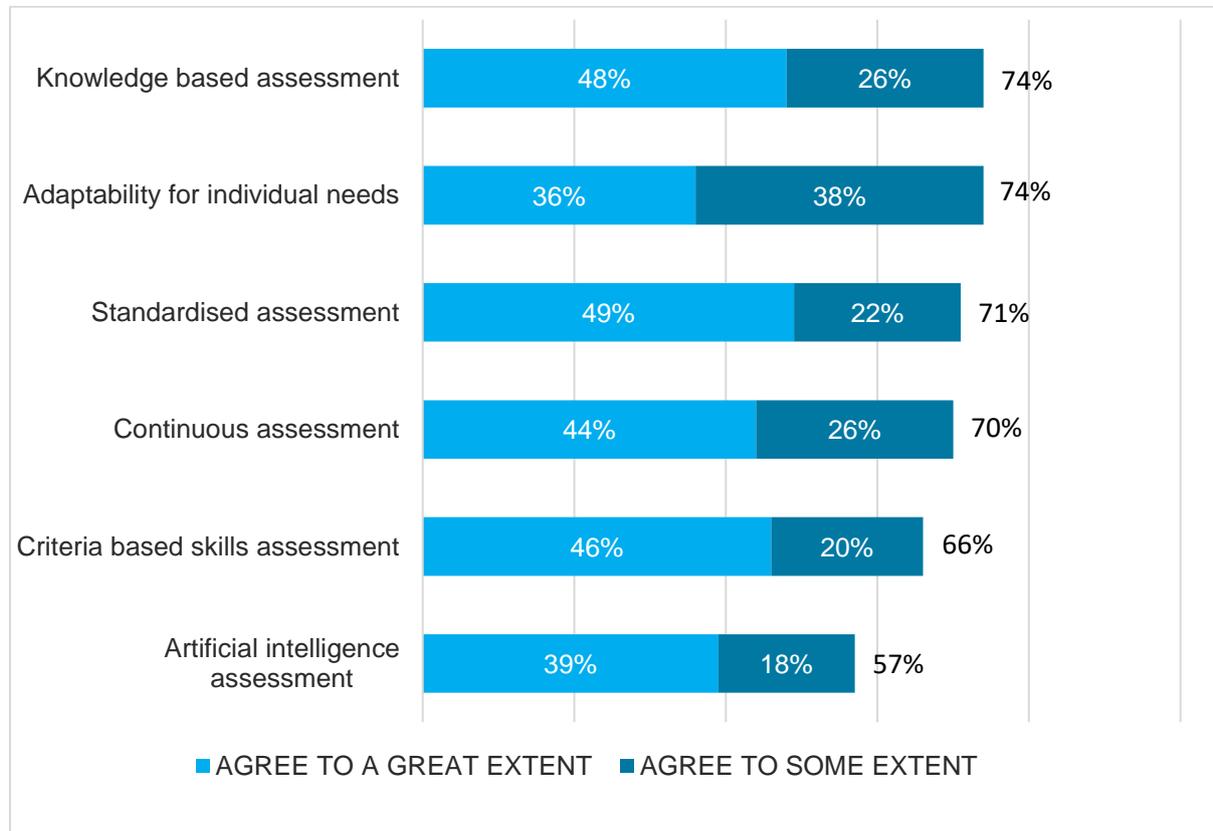
<sup>47</sup> Roll & Wylie, [Evolution and Revolution in Artificial Intelligence in Education](#), February 2016

<sup>48</sup> Holmes et al, [Ethics of AI in Education: Towards a Community-Wide Framework](#), April 2021

### a) Improving learner assessment

There is no doubting the mandate here to explore the power of technology in everyday assessment and in facilitating a new approach to assessment.

**Figure 9: The ways that technology may potentially improve learner assessment**



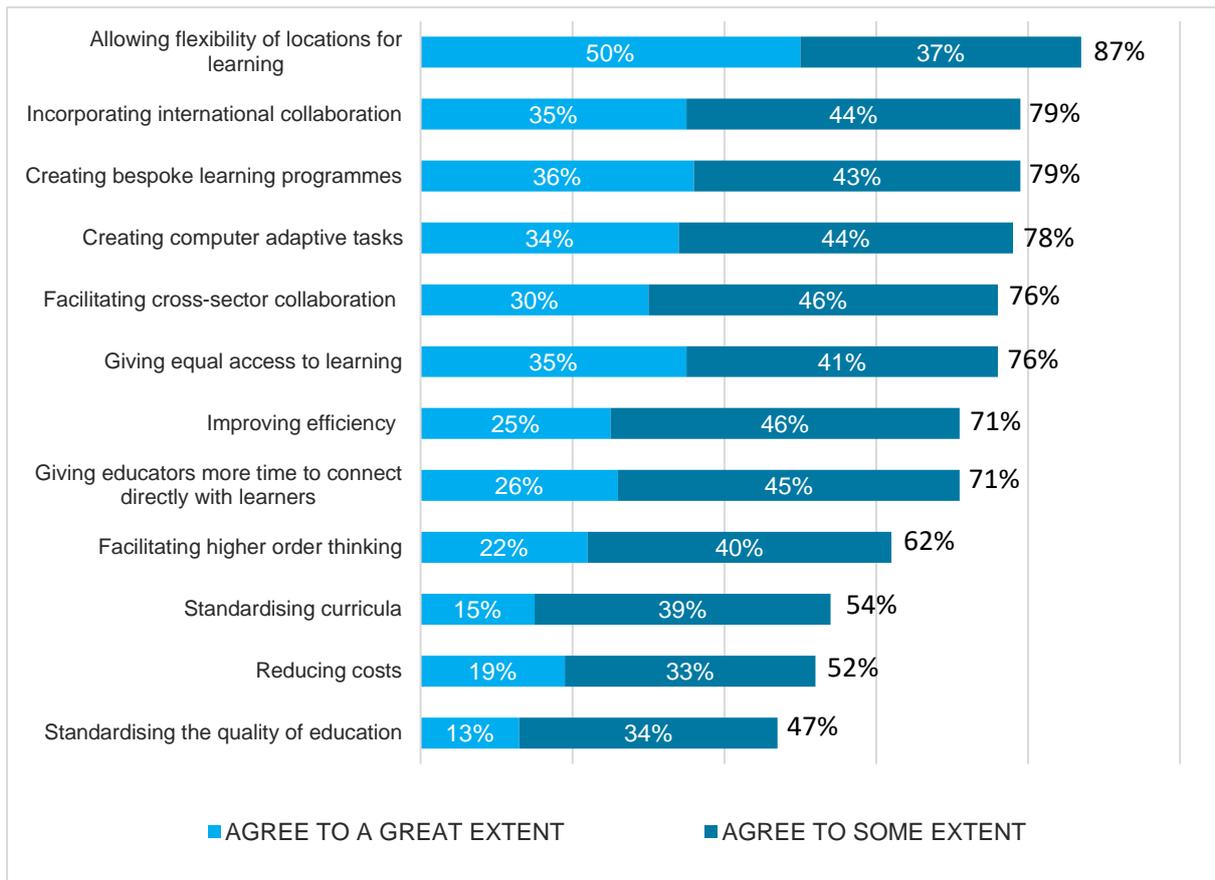
### ***Q. To what extent do you believe that technology could improve assessment?***

There is significant support for further research into the way technology could help in both formative and summative assessment. There is a strong sense that it could help us assess knowledge and skills and support individual progress through adaptive tests.

### b) Improving learning

There is equal support for an exploration of the uses of technology in improving teaching and learning.

**Figure 10: The ways that technology may potentially benefit and improve learning**



**Q. To what extent do you believe that each of these are ways that technology could improve learning?**

The greatest potential of new technology is seen in the increased flexibility it brings in where learning takes place and in enabling greater collaboration, both international and cross-sector.

Other benefits are identified for improving the learner experience.<sup>49</sup> These include equal access to learning, bespoke learning programmes and adaptive tasks, enabling teaching to be tailored to individual needs in ways that are not always possible in a classroom.

The use of technology is also seen as conferring practical advantages for teachers, such as improving efficiency and freeing educators from the routine tasks that prevent them devoting more time to learners.

<sup>49</sup> Holmes, [Artificial Intelligence in Education](#), June 2020

## 5. THE CALL FOR REFORM

### Context and summary

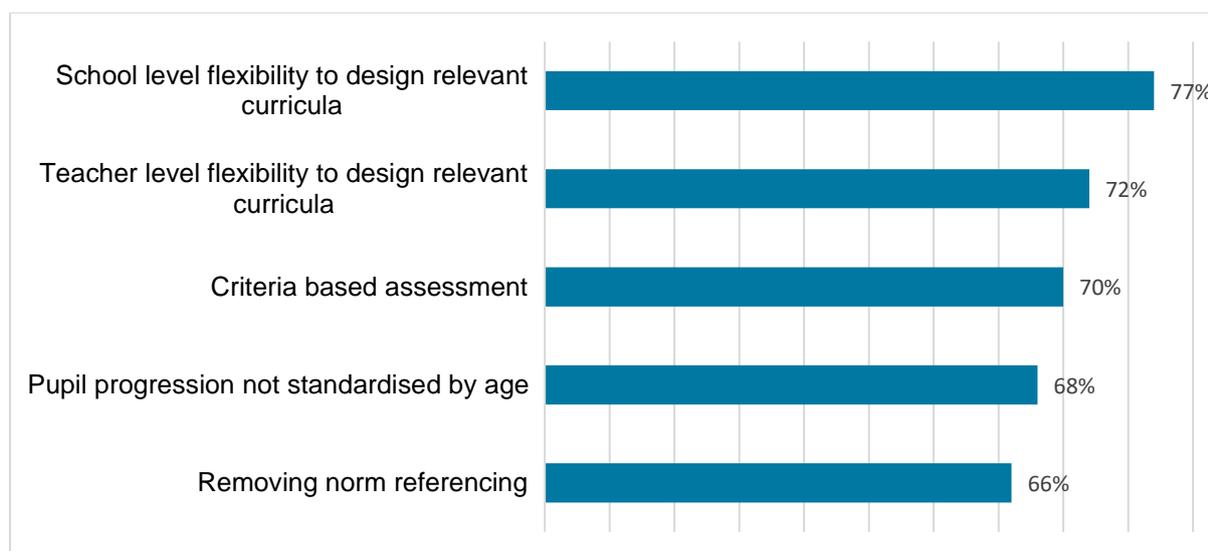
“Commissions, reviews and reports on the future of assessment and exams are springing up everywhere.”<sup>50</sup> The Independent Assessment Commission, the National Education Union, Pearson, and The Times are all conducting separate reviews, while Rethinking Assessment, launched by the Big Education Academy Trust in partnership with the Edge Foundation, has gathered together educationalists from a wide range of institutions and backgrounds with the aim of proposing alternative approaches and trialling new ideas. There are significant concerns that our current educational provision is not fulfilling its purpose.

The research presented here indicates strong cross-sector support for reform of curriculum and assessment. Particularly striking is the desire to prioritise the contribution of educationalists in the debate. Student voice is also recognised as important.

#### a) Priorities in reform

While it is easy to highlight shortcomings in the current system, it is a different matter to suggest workable solutions. The top five suggestions our respondents identified are as follows:

**Figure 11: Top five identified ways in which the national curriculum could be improved**



#### ***Q. To what extent do you feel that the national curriculum could be improved by ...?***

There is a consistent demand for greater flexibility in the way schools and teachers can respond to the demands of the national curriculum. Teachers feel that students would be better engaged were curriculum and assessment more clearly focused on their interests and needs.<sup>51</sup>

There is support for an end to (or at least reduction in) norm-based referencing in assessment, which corresponds with concerns about the ‘forgotten third.’ Every year, a third of all students at GCSE fail to get a grade 4 pass in English and maths. The pass rate is norm referenced with fixed percentages of students awarded each grade to ensure comparable outcomes.<sup>52</sup> There is also support for the adoption of criterion referencing instead, which recognises achievement irrespective of historic data.

<sup>50</sup> Schools Week, [The battle for the future of assessment](#), 12 October 2021

<sup>51</sup> Drake, S., Reid, J., [Thinking now: Transdisciplinary thinking as a disposition](#). *Academia Letters*, Article 387, 2021

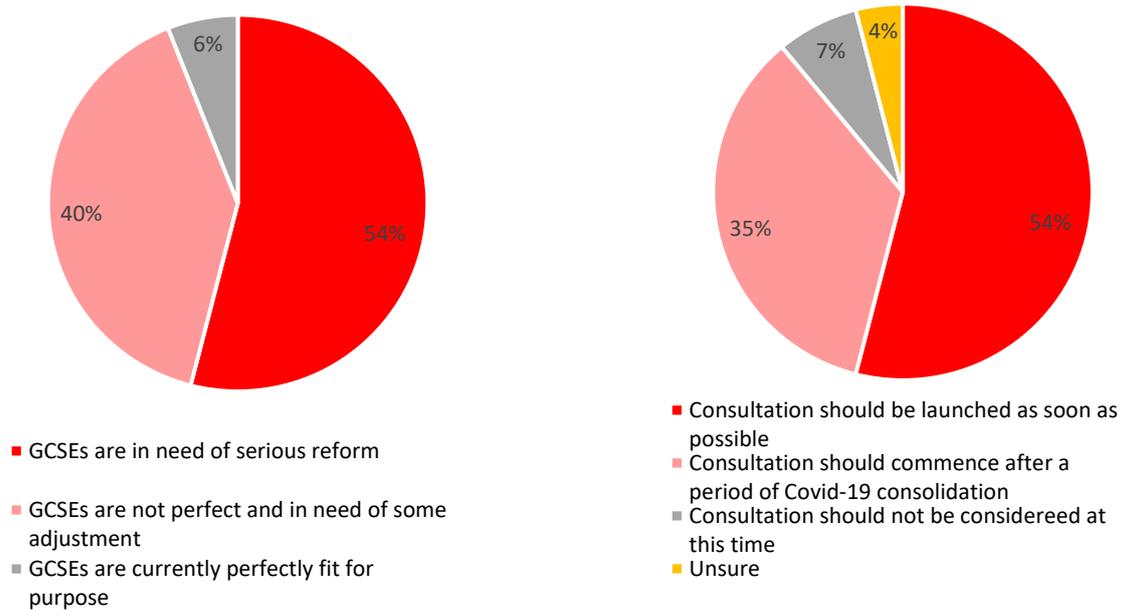
<sup>52</sup> ASCL, [The Forgotten Third](#), September 2019

While it is important to ensure standards and rigour in assessment, we also need to be mindful of the potential for any system to create disadvantage. Robust equality impact assessments should be in place to help mitigate against this.

**b) A mandate for reform**

The response to questions about the scale of reform required and the speed at which respondents want to see it implemented was unexpected and is a clear wake-up call.

**Figure 12: The perceived scale and speed required of reform of GCSEs**



**Q. Which of the following statements best describes how you feel about the current GCSE system?**

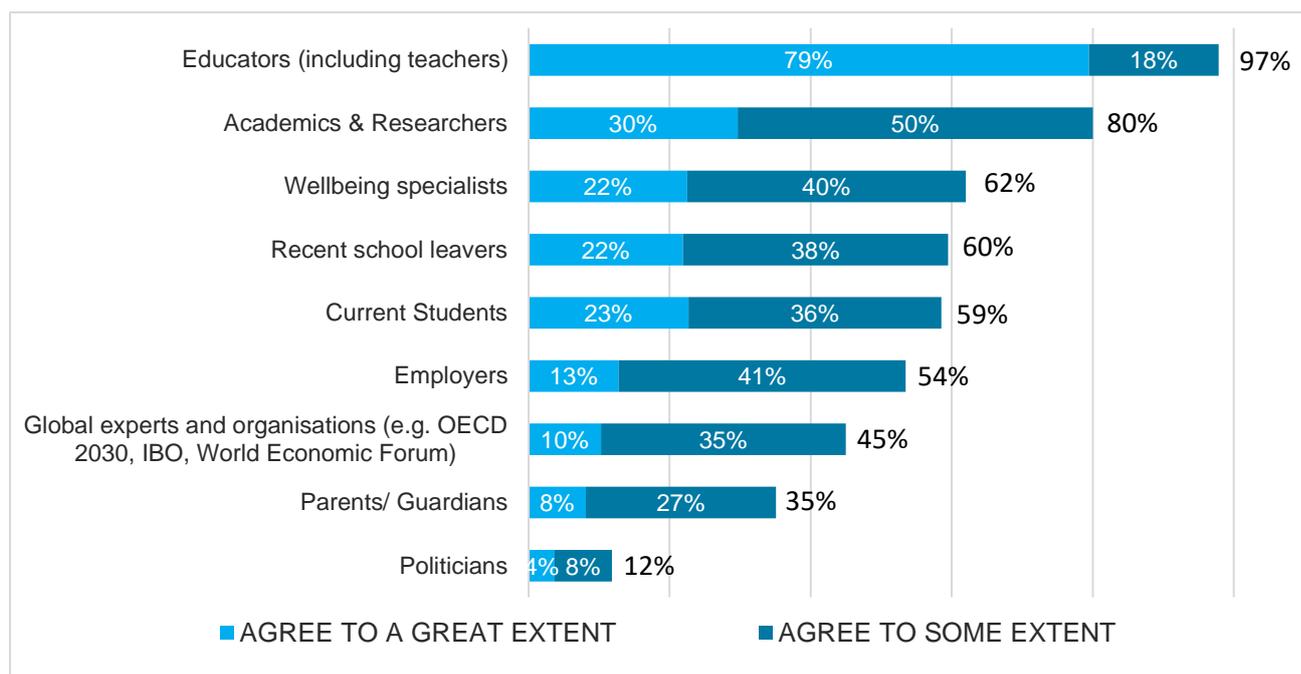
**Q. Which of the following best describes how you feel about potential consultation on GCSE reform?**

94% of respondents feel that GCSEs require some reform, with over half saying both serious reform is required and that consultation on this should be launched as soon as possible.

**c) Leadership of reform**

97% of respondents believe that any change in the education system needs to be led by educators themselves. Across our research, the need to value teachers and the importance of their role is made repeatedly. Teachers need a central voice in any review or reform of our educational system.

**Figure 13: To what extent do you believe that change in education should be led by...**



**Q. To what extent do you believe that change in education should be led by ...?**

Input from academics and researchers is highly valued, as is the voice of wellbeing experts. The latter is unsurprising given the low scores given to wellbeing and mental health across the survey.

Student voice also scores highly. The past few years can have left us in no doubt as to their desire to engage, given the strength of their response to climate change, *Everyone’s Invited* and the Black Lives Matter movement. It is their future that is at stake.

Just 12% of respondents think politicians should lead on educational reform. In recent years, reform has been driven by politicians and arguably by a political agenda. There is a strong feeling that this needs to change.<sup>53</sup> The Pearson report *Making Education Work* also makes interesting comment on the impact of changing political leadership in education and the importance of neutral, stable, cross-party alignment.<sup>54</sup> A fresh start in education, which de-politicises the system, would be a welcome move.

<sup>53</sup> Whitty & Wisby, [Education in England – A Testbed for Network Governance](#), May 2016

<sup>54</sup> Pearson, [Making Education Work](#), January 2014

## 6. CONCLUSIONS

1. The context for our educational system has changed. The world is facing many different challenges. The digital revolution is fundamentally altering the way we live and work. There are new imperatives around the impact of climate change and the development of sustainable solutions to current and future needs. The importance of greater inclusivity, open-mindedness, tolerance and respect is widely recognised. Past solutions are not always best suited to future problems and our survey suggests that it is time for us to re-evaluate both our purpose in education and our approach to learning.
2. There are significant concerns that our current education system is falling a long way short in offering a relevant education which promotes the breadth of knowledge, skills, attitudes and values necessary for young people to thrive in the modern world. The acquisition of knowledge and learning skills are clearly important, but more emphasis needs to be given to physical and mental health, alongside data and digital literacy, oracy, social and environmental skills, critical thinking and opportunities that encourage the development of ethical understanding, curiosity, creativity, and a love of learning.
3. The survey suggests that wellbeing, both physical and mental, is currently under-prioritised in our educational system. We now know far more about the teenage brain than when GCSEs were first introduced; wellbeing experts including neuroscientists have an important role to play in discussions about education and educational reform.
4. Student motivation is central to the success of any educational model. The current curriculum, however, lacks relevance for many.
  - There is support for greater flexibility in enabling teachers to respond to individual and community needs.
  - We should consider again the relevance of a curriculum at Key Stage 4 which is based primarily on academic credentials and look to broaden its reach.
  - We should look at how we can include student voice in discussions about educational reform.
5. The national curriculum is not responsive to the needs of a diverse student body. Those who are neurodiverse, suffering from mental ill-health and/or different disabilities, or who come from low-income families are particularly badly served. Geographic location, cultural heritage, ethnicity, and native language are also seen as strong influencers of educational outcomes. The issues relating to diversity and inclusion in the curriculum need to be thoroughly researched and addressed as a matter of urgency.
6. Few would argue that qualifications are not important, but assessment in its current form is seen as too narrowly focused and as being used for the wrong ends. Exams are more successful in serving the purposes of university selection and employers than in encouraging learner development or in motivating engagement in education. Several concerns have been highlighted.
  - Criterion-referenced qualifications need to replace norm referencing, particularly in core subjects like English and maths, otherwise student achievement will be obscured by expedients designed to restrain grade inflation.

- Further investigation is needed into how we might complement elements of formal testing at 16+ with alternative and more flexible models of assessment that encourage and measure different attributes and skills. These might include tests students can take when they are ready, computerised tests, open book assessment, vivas, course work, presentations, reports, and research projects. Numbers of these approaches are already being adopted and developed, including in universities.<sup>55</sup> The Extended Project Qualification offers a ready-made model which could be adapted to assess individual or group challenges in response, for example, to the 17 UN Sustainable Development Goals, and to encourage deeper learning through the practical application of knowledge and skills.
7. We need to carefully examine the potential of technology to support teaching and learning, and its role in assessment, both formative and summative. Educators favour using technology to improve access to learning and opportunities for collaboration, and to enable flexibility in learning location. They also endorse research into ways in which technology could be used to support individual pathways in learning. There is significant demand to bring technology into the assessment process itself.
  8. 94% of respondents believe GCSEs either need complete or partial reform, more than half (54%) wish to see that process commence immediately, whilst a third (35%) would like to see it take place after a period of consolidation post pandemic.
  9. There is strong support for teachers and key stakeholders in education to play a leading role in reform. It is interesting to note that the Welsh Government is already calling on teachers to engage in debate about fundamental reforms in curriculum and assessment, both of which are under consideration in Wales.<sup>56</sup>

## PROPOSED NEXT STEPS

As a result of our research findings, we are making the following proposals.

Government should appoint an individual or organisation to lead a widespread consultation process with teachers, students, businesses, employers, universities, wellbeing experts, neuroscientists, and others on reform of curriculum and assessment. Curriculum and assessment must be *rigorous*, and *coherent*, offering high quality, easily navigable pathways.<sup>57</sup> These pathways should be *valued* by all stakeholders and encourage *aspiration* and *life-long learning*.

This consultation should report to the Secretary of State for Education with urgency. This apolitical consultation process should:

1. Evaluate how curriculum and assessment can be reformed to motivate and engage all learners and enable them to thrive, including by:
  - a. focusing on the knowledge, skills, attitudes, and values they need, including the creativity, problem-solving skills, critical thinking and values necessary for personal agency and active, ethical citizenship in a respectful, tolerant, and sustainable world,
  - b. encouraging personal development, and physical and mental wellbeing,

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<sup>55</sup> [NMITE](#)

<sup>56</sup> Welsh Government, [Curriculum for Wales](#), 2021

<sup>57</sup> EDSK, [Reassessing the Future](#), January 2021

- c. offering all learners ways to deepen their understanding by applying their knowledge and skills to everyday tasks and real-world issues such as the 17 UN Sustainable Development Goals,
  - d. creating valued technical and vocational pathways at Key Stage 4 and opportunities in the creative and performing arts,
  - e. placing more emphasis on technology and digital skills,
  - f. developing oracy.
2. Address concerns about mental and physical health and wellbeing, in consultation with wellbeing experts and neuroscientists. Consideration should be given to:
    - a. how research into the development of the teenage brain can inform our approach to teaching, learning and assessment,
    - b. the impact of high stakes assessment at 16+,
    - c. the relevance of what is taught and opportunities for progression.
  3. Focus on prioritising inclusion and the needs of every student, exploring:
    - a. the reasons why neurodiversity, mental health, and economic status remain the biggest blockers to securing equal opportunities in the education system today and how all groups can be properly supported so that we ensure equity and encourage social mobility,
    - b. the benefits of, and opportunities for, providing schools and learners with greater flexibility in how the curriculum is implemented,
    - c. the development of multi-modal, student-centred assessment tools that assess a broad range of knowledge, attributes, and skills,
    - d. the importance of creative, technical, and vocational qualifications at 16+ as equal in status to their more 'academic' counterparts.
  4. Consider how educators can be supported with the resources and training to enable them to fulfil the holistic educational role they seek, recognising the importance of:
    - a. high-quality teaching,
    - b. excellent pastoral care,
    - c. personal development,
    - d. physical and mental wellbeing.
  5. Create a mechanism for the ongoing contribution of the teaching profession and wider stakeholders to conversations about the future of education, ensuring:
    - a. a leading role for educators in any educational reform,
    - b. ongoing opportunities for student voice,
    - c. the de-politicisation of the education system.
  6. Explore the role of Ed-Tech in teaching, learning and assessment, paying careful heed to its ethical and practical implications. These roles could include:
    - a. bringing communities together across sectors, nationally and internationally,
    - b. personalising learning,
    - c. enabling teachers to focus on teaching and spend less time on routine activities,
    - d. in assessment.

## APPENDIX 1

### Sample Profile

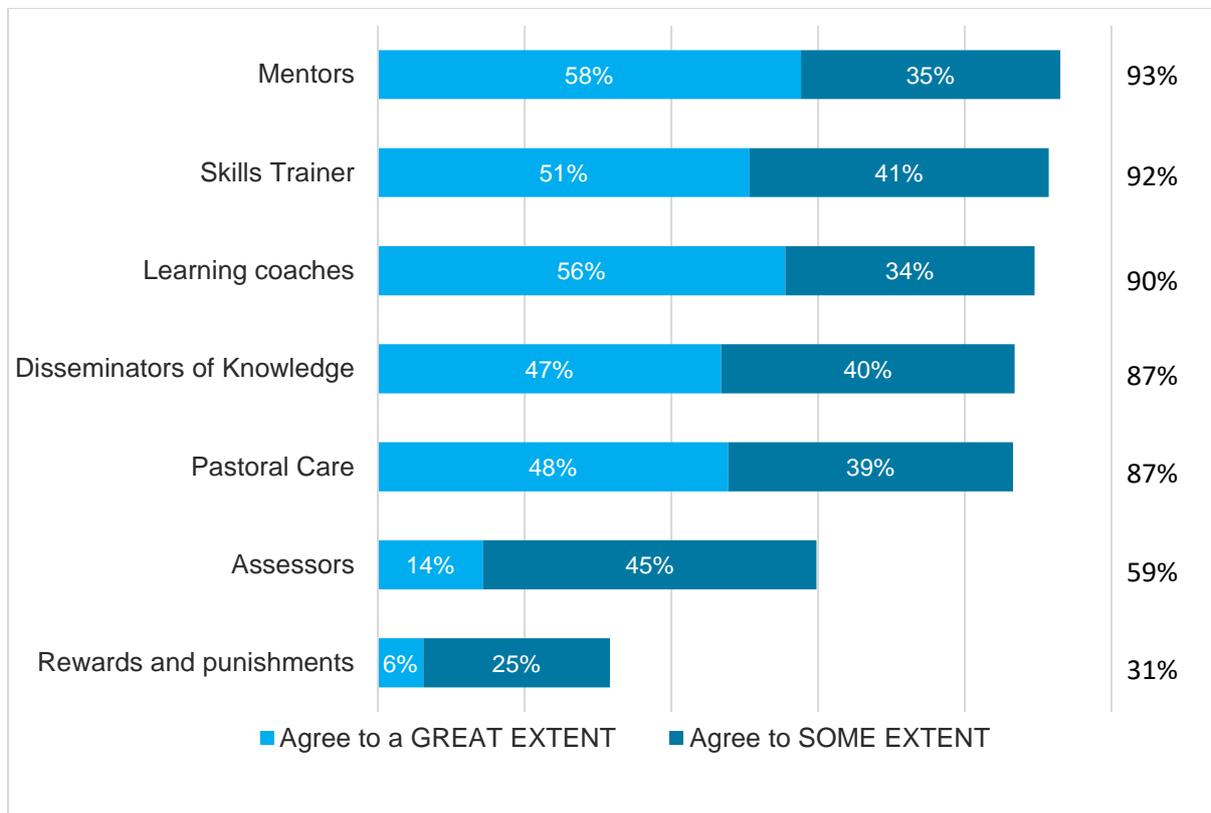
TYPE OF RESPONDENT	=NUMBER	=%
Academic / Researcher	30	4%
Business Leader	11	1%
Learner / Student	152	19%
Parent	125	16%
SLT Member	277	35%
Teacher / Educator	173	22%
University Lecturer / Leader	8	1%
Other	13	2%
<b>TOTAL</b>	<b>789</b>	<b>100%</b>

TYPE OF SCHOOL	=NUMBER	=%
Academy	151	34%
GSA	63	14%
HMC	96	21%
Local Authority	86	19%
Other Independent	19	4%
IAPS	2	<1%
ISA	5	1%
Special School	7	2%
Declined to answer	21	5%
<b>TOTAL</b>	<b>450</b>	<b>100%</b>

## APPENDIX 2

### The Role of Educators

#### The perceived role of teachers in the lives of learners



## APPENDIX 3

1. Slide deck with full data tables [available here.](#)
2. Excel document with full data tables [available here.](#)