Policy complexity and school curricula

A case for openness in the education system

Authors: Mohini Baijnath and Neil Butcher
October 2023

nba
excellence in education

Date of publication: 17 October 2023
Published by: Neil Butcher & Associates

Authors' acknowledgements:
We would like express our gratitude to Merridy Wilson-Strydom, Sarah Hoosen, and Lisbeth Levey for sharing their invaluable expertise and for providing insightful feedback that greatly contributed to this paper.

Our sincere thanks also go to the William and Flora Hewlett Foundation, whose funding was instrumental in enabling this research.

The views expressed in this paper are our own and do not necessarily reflect the positions of those acknowledged above.

Table of contents

Executive summary

Education systems around the world have traditionally been characterized by closed knowledge systems, overly prescriptive curricula, narrow conceptions of success and achievement, and a failure to fully empower teachers as facilitators of learning. This inhibits their ability to develop a full spectrum of human learning capabilities amongst learners, especially in their formative schooling years. This paper argues that, while there may be various reasons for these issues, one critical problem is that many education systems are inhibited by complex policy environments that, most likely unintentionally, impede meaningful learning and create educational closure.

Education policies often create new rules that accumulate over time, giving rise to inefficiencies and unnecessary constraints that do not support (and often obstruct) learner success. One manifestation of policy complexity within education systems is the growing granularization and rigidity of the formal national curriculum, which has led to the proclivity to use standardized testing and high-stakes examinations as a proxy for learner success. This complexity has also eroded autonomy for teachers, constraining what they can do in the classroom and increasing the tendency to 'teach to the curriculum' (or, worse even, to the examination). Standardized testing and high-stakes examinations have also increased anxiety and tension amongst learners, parents, and teachers, who perceive a false equivalence between test performance and success in later life.

Despite the diverse nature of education systems around the world, many share a common problem of complex policy environments. Increased use of standardized testing models and resulting curriculum rigidity does not lead to better quality education but can have a deleterious effect on learner achievement. As complexity filters down into the classroom, another consequence is that the teachers who are tasked with delivering curricula are increasingly constrained and disempowered by these central policies. The consequences of this are far reaching as they emphasize rigidity and closure in knowledge acquisition, leaving little space for substantive learner-teacher engagement, contextual adaptation, and discovery.

In response to these challenges, we can use the principles of open learning as a tool to reflect on policy complexity in education systems, including the extent to which a policy environment is facilitating openness or promoting closure. A useful mechanism to tackle policy creep and ensure that education systems are geared toward a broader definition of learner success is to adopt and systematically implement the concept of openness within education systems, which begins at the policy level. Prioritizing openness offers significant opportunities for teachers and learners to reclaim what happens in the classroom and become more engaged members of society.

Integrating open learning principles into policy discourse would be a step forward in reducing unnecessary complexity and closure within education systems. Thus, promoting openness in the education system and adopting the principles of open learning through policy requires a core set of actions, outlined in the recommendations below. These are by no means exhaustive but do suggest possible areas of reform.

- **Review the existing policy environment against the principles of open learning and see where to simplify, streamline, reduce, and unclutter that environment.**
    - Most policy environments can be radically simplified. Policymakers could develop a clear, consistent vision for education system capabilities and learner success that incorporates holistic learner development and accommodates meaningful discovery across the full spectrum of human capabilities.
    - Key to this will also be to critically examine existing policies to determine where they are creating unnecessary closure and unnecessary clutter. This process can then identify which policies are necessary and which might be phased out.

- **Where possible, move policies away from rule-making and towards solving problems in the education system in a systematic manner**.
    - Develop a deep understanding of the contexts and problems that interventions aim to serve, and determine whether the problems need a policy to address them effectively. If they do, start with a small policy that can be feasibly implemented, tested, and can be iterated after feedback is provided. Then scale the policy over time.
    - Gain buy-in from the stakeholders the interventions intend to serve. If stakeholders are not invested in the success of the intervention and do not understand the vision they are working towards, efforts will inevitably stall.

- **Empower and delegate authority to teachers.**
    - Amend pre-service and in-service teacher training curricula to promote reflective practice. Expose teachers to multiple teaching philosophies and methodologies during their training, providing them tools to develop their own teaching style and approach.
    - Policies should not seek to micro-manage teachers and their interactions in the classroom. They should be teacher-centred, empowering, and treat teachers like the professionals and experts that they are.

- **Empower school principals to become leaders.**
    - With necessary policy support, principals hold the power to break the rigid, rules-based hierarchies of the system. Policies can enable principals to refocus their leadership to model compassion, empathy, and flexibility in how the school is managed and operated. This includes strengthening communication between school leaders and teachers and developing feedback loops that enable school leaders to make informed decisions about how the school functions.

- **Remove curriculum rigidity and broaden the curriculum.**
    - Removing unnecessary curricular content and associated administration efforts is an important step in reducing curriculum rigidity. As an alternative, policymakers can create space for discovery, enjoyment, and critical thinking by shifting from a content-focussed curriculum to a competence-focussed one.
    - Schools may also want to reconsider how the timetable is structured and how learners' time is organized to create more space for engagement. Teachers could deliver differentiated instruction by providing different learning materials or assignments to learners based on their level of proficiency or could consider team teaching approaches to expose both teachers and learners to new ideas.
    - Schools could also introduce more time for self-study to enable greater timetabling flexibility.

- **Reduce the emphasis on high stakes standardized testing.**
    - This goes together with removing curriculum rigidity. Remove high-stakes testing and use low-stakes standardized testing strategically i) as a policy tool to identify where the system is failing learners and ii) to measure learner achievement within a predefined set of academic areas which are matched against core competences learners are expected to develop at each level of education. Promoting the development of core competences (while fostering creativity and exploration as a key part of the educational experience) will allow learners to engage with their peers and teachers without the constraints of unnecessary assessments or the time pressures of administering them.
    - Establish systems for personalized learning that, in addition to developing these core competences, nurtures learners' aptitudes and interests and encourages them to explore and enhance the full range of developmental areas. Teachers can respond to the unique needs of their learners by using OER, OpenCourseWare (OCW), and other technologies to create custom

lesson plans, assessments, and activities. OER and OCW can enable pedagogical innovation, avoid unnecessary duplication, and reduce the costs of producing and distributing course material, even in resource constrained environments.[1] Personalized learning might also entail leveraging other people, including parents, community members, and experts, to provide their own insights and guide learning.

[1] World Bank. (2021). Unleashing the Power of Educational Technology. Retrieved from https://thedocs.worldbank.org/en/doc/61714f214ed04bcd6e9623ad0e215897-0400012021/related/EdTech-Report-FIN2-web.pdf

Introduction

It can be difficult to gauge the impact that national education policies have on human interactions in the classroom. In theory, one driver behind policies is to promote learner success so that those learners can become engaged citizens who contribute to society in meaningful ways. Often, though, we hear about the disconnect between policy and practice; that education systems consistently fall short of preparing learners adequately for life beyond school.[2] Why might that be the case?

Answering this question requires a shift in perspective on challenges surrounding learning and learner success. Policymakers may say they have difficulties in aligning the realities of the education system with the processes and techniques that would best serve that system; teachers might complain about a lack of time or autonomy in delivering the curriculum, or a disjuncture between curriculum policy and real-world needs; and learners may find lessons and assessments stressful or irrelevant to their interests. **While there may be various reasons for these issues, one critical problem is that many education systems are inhibited by complex policy environments that, likely unintentionally, impede meaningful learning and create educational closure.**

One manifestation of policy complexity is the growing granularization and density of national curricula. Many governments have codified increasingly detailed levels of learning standards and outcomes for subjects at a central level, accompanied by elaborate assessment rubrics and frameworks. Even where these were intended to provide guidance and support, such complexity can end up restricting and reducing the space for meaningful learning in engagements between teachers and learners.

Despite the diverse nature of education systems around the world, many appear to be dealing with a common problem of complex policy environments. Increased use of standardized testing and resulting curriculum rigidity does not lead to better quality education but can have a deleterious effect on learner achievement. As complexity filters down into the classroom, another consequence is that the teachers who are tasked with delivering the curricula are increasingly constrained by these central policies. The consequences of this are far reaching and lead to rigidity and closure in knowledge acquisition, leaving little space for substantive learner-teacher engagement, contextual adaptation, and discovery. However, we can use the principles of open learning as a tool to reflect on policy complexity in education systems, including the extent to which a policy environment is facilitating openness or promoting closure.

Understanding policy complexity

Education systems comprise various stakeholders, sub-sectors (from early childhood to higher education and beyond), and elements (including governance, accreditation, quality assurance, curriculum, and teacher training and development). All of these are supposed to work coherently to support an individual's learning and socio-economic integration. Education ministries are tasked with defining what the system should accomplish in a coherent and systemic manner, together with the policy priorities and strategies that seek to achieve that vision. They also need to create implementation options and actions that are realistic,

[2] World Bank. (2019). The Education Crisis: Being in school is not the same as learning. Retrieved from https://www.worldbank.org/en/news/immersive-story/2019/01/22/pass-or-fail-how-can-the-world-do-its-homework
UNESCO, UNICEF and the World Bank. (2021). The State of the Global Education Crisis: A path to recovery. Retrieved from https://www.unicef.org/media/111621/file/TheStateoftheGlobalEducationCrisis.pdf.pdf
World Economic Forum. (2022). More Children than Ever are Going to School. But are they really learning? Retrieved from https://www.weforum.org/agenda/2022/11/education-learning-africa/

measurable where possible, and accountable. Creating sector-wide education policies can thus be challenging, particularly in countries with multiple ministries or bodies in control of education and training.[3]

The connections between different elements of an education system can be explained using complexity theory. Complexity theory is a multidisciplinary field that explores elaborate systems and the patterns of behaviour that drive them. The theory provides a basis for understanding the relationships between different elements of the education system and the effect that these relationships have on learning and learner success.

Highlighting the distinctions between simple, complicated, and complex systems, Snyder (2013) explains:

- **Simple systems** allow one to follow and repeat a formula with minimal expertise. Each time, the results are somewhat uniform.
- **Complicated systems** often need to draw from multiple disciplines to achieve a specific result. They involve higher order expertise and data analysis – the 'known unknowns' that can be tested through analysis. Once the sought-after result is achieved, it can generally be replicated.
- **Complex systems** involve the 'unknown unknowns', where interactions are dynamic and unpredictable. In such systems, the goal is to create space for patterns to emerge which can be achieved by increasing interplay and communication.[4]

But complex systems or outcomes do not necessarily need to arise from complex causes. As Turchin (2023) explains, complexity can be generated from simple origins too:

> *This is why the framework of nonlinear dynamics, and complexity science more generally, is so fruitful for understanding history—it gives us tools for studying how different factors interact with each other to generate systemic dynamics. A relatively small set of mechanisms can generate exceedingly complex dynamics. This is the essence of complexity science: complex dynamics do not have to have complex causes.*[5]

Complexity theory is another useful paradigm for examining the behaviour of complex systems. The theory suggests that systems begin as collections of individuals (learners, teachers, principals, policymakers etc.) who organize themselves and create relationships. As Larsen-Freeman and Cameron (2008) explain, 'complexity theory works at the system level, and explanation is in terms of the system's behaviour, not at the level of individual agents or elements'.[6] Relationships between different elements of a system feed into the network and, as Cohen, Manion and Morrison (2011) note, the interactions cause each of the individual actors to co-evolve, responding to positive and negative feedback. Not only are the interactions between elements in the system multiple, but they are 'multiply connected'.[7]

A national education system is one example of a complex system, with many interrelated elements such as policy, regulation, curriculum design, teacher training and development, and assessment practices. Relationships form in response to positive or negative feedback, and changes in one area can have a knock-on effect throughout the system.[8] Policies provide a key avenue through which to give and receive feedback

[3] UNESCO. (nd). Education Policies and Strategies: Towards future-ready education systems. Retrieved from https://www.unesco.org/en/education-policies

[4] Snyder, S. (2013). The Simple, the Complicated, and the Complex: Educational Reform Through the Lens of Complexity Theory. OECD Education Working Papers No. 96. Retrieved from https://www.oecd-ilibrary.org/docserver/5k3txnpt1lnr-en.pdf?expires=1687205086&id=id&accname=guest&checksum=163F6B8E02DA0DBC2AB14F52B0014161

[5] Turchin, P. (2023). End Times: Elites, Counter-Elites, and the Path of Political Disintegration. Penguin Publishing Group.

[6] Larsen-Freeman, D. & Cameron, L. (2008): Research methodology on language development from a complex systems perspective. *The Modern Language Journal*, 92(2), 200-213.

[7] Cohen, Manion and Morrison (2011) in du Plessis, A. (2021). Complexity Theory as Paradigm when Researching Education Reform: The South African Case. New Challenges to Education: Lessons from Around the World. BCES Conference Books (Vol. 19). Retrieved from https://files.eric.ed.gov/fulltext/ED613952.pdf

[8] See https://www.oecd-ilibrary.org/education/the-simple-the-complicated-and-the-complex-educational-reform-through-the-lens-of-complexity-theory_5k3txnpt1lnr-en

to and from the system. However, the typically one-way nature of this feedback presents limitations. Snyder (2013), referencing Morrison (2010) and Duit *et al.* (2010), explains:

> *Experts devise a policy targeting a single or relatively small set of problems and launch it, believing (or at least hoping), that the solution they are advocating is whole, complete, widely replicable and easily actionable. All that is then left is to wait for the results and see if the metaphorical rocket reaches the moon. Iterative feedback is often limited in this approach, and flexibility is not often a high priority in the initiative's design. What this misses is that complex problems cannot be adequately captured via such linear approaches.*[9]

In this paper complexity theory is relevant for two reasons. First, one of the key concepts within this theory is emergence, the idea that, if a system is sufficiently complex, new, and potentially unanticipated characteristics and behaviours emerge from it. Can the static nature of policy documents capture a dynamic system? We will argue that it cannot. Second, complexity theory demonstrates that a system has the capacity for self-organisation as stated by Cohen, Manion and Morrison (2011): 'systems possess the ability for self-organisation, which is not according to a prior grand design...self-organisation emerges, it is internally generated'.[10] If we take this to be true, the role of educational policies is not to introduce additional prescriptive measures and rules over time but instead to provide the system with enough space for self-organization and focus on cultivating an open environment that creates the conditions for learner and teacher agency.

While many policies aim to codify the relationships and interactions between collections of individuals in a system and define how they work, the policy itself needs to accommodate the complexity of those relationships. Often, this starts well but, over time, with growing codification within and across policies, we see policy complexity creep in, especially as new policies are introduced without the old ones being removed. This gives rise to policy complexity, which gets progressively worse over time. Each new policy layer adds to the complexity, often resulting in a convoluted web of regulations, guidelines, and expectations being imposed on stakeholders such as learners and teachers.

The proliferation of policies in education systems

There is significant variation in how different countries approach policymaking and implementation. In some countries, most policymaking happens at the provincial or state level. One example of this is the United States (US), where the federal government has limited authority due to the Tenth Amendment[11] to act on public education, and education policy serves to support the education systems of state and local governments through funding and regulation of elementary, secondary, and post-secondary education.[12] Thus, strategic objectives may differ across states. Similarly, in Canada, public education is a provincial responsibility and is commonly governed by democratically elected school boards. Provincial governments

[9] Snyder, S. (2013). The Simple, the Complicated, and the Complex: Educational reform through the lens of complexity theory. OECD Education Working Papers No. 96. Retrieved from https://www.oecd-ilibrary.org/docserver/5k3txnpt1lnr-en.pdf?expires=1687205086&id=id&accname=guest&checksum=163F6B8E02DA0DBC2AB14F52B0014161

[10] Cohen, Manion and Morrison (2011) in du Plessis, A. (2021). Complexity Theory as Paradigm when Researching Education Reform: The South African Case. New Challenges to Education: Lessons from Around the World. BCES Conference Books (Vol. 19). Retrieved from https://files.eric.ed.gov/fulltext/ED613952.pdf

[11] The Tenth Amendment notes: 'The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.' Although states possess a high degree of power to determine education policy overall, the federal government does implement legislation, regulations, guidance, and policies to a limited extent. One example is No Child Left Behind reforms introduced by the Obama administration in 2010. See https://www2.ed.gov/policy/landing.jhtml?src=ft

[12] U.S. Department of Education. (2021). The Federal Role in Education. Retrieved from https://www2.ed.gov/about/overview/fed/role.html

decide the functions that school boards fulfil, how they are funded, and how much local autonomy they have.[13]

In other cases, education policies are set at the national level. For example, schooling in South Africa is governed by the Department of Basic Education (DBE), while higher education is governed by the Department of Higher Education and Training. In terms of schooling, education policies are set at the national level and then implemented by nine provincial education departments in collaboration with various stakeholders such as school leaders, teachers, unions, and parents.

A third example is where policy formulation and implementation all happen at the national level. An example of this would be Botswana's Ministry of Basic Education. Among its responsibilities is to formulate policies as well as 'to interpret education policies, design, develop, evaluate, and ensure prompt delivery of quality education to learners from pre-primary to secondary education level'.[14]

Despite the variation in education policy environments, many education systems appear to be dealing with complex policy environments. South Africa's school policy environment illustrates this well. The DBE's website[15] contains a list of 39 documents that govern schools in the country.[16] The table below summarizes the number of policies per area.

Table 1 Policies governing basic education in South Africa

Policy area	Number of policies	Number of policy pages
Access to Schools	8	247
School Management	17	524
School Funding	1	4
Curriculum and Assessment	13	1 245
TOTAL	**39**	**2 020**

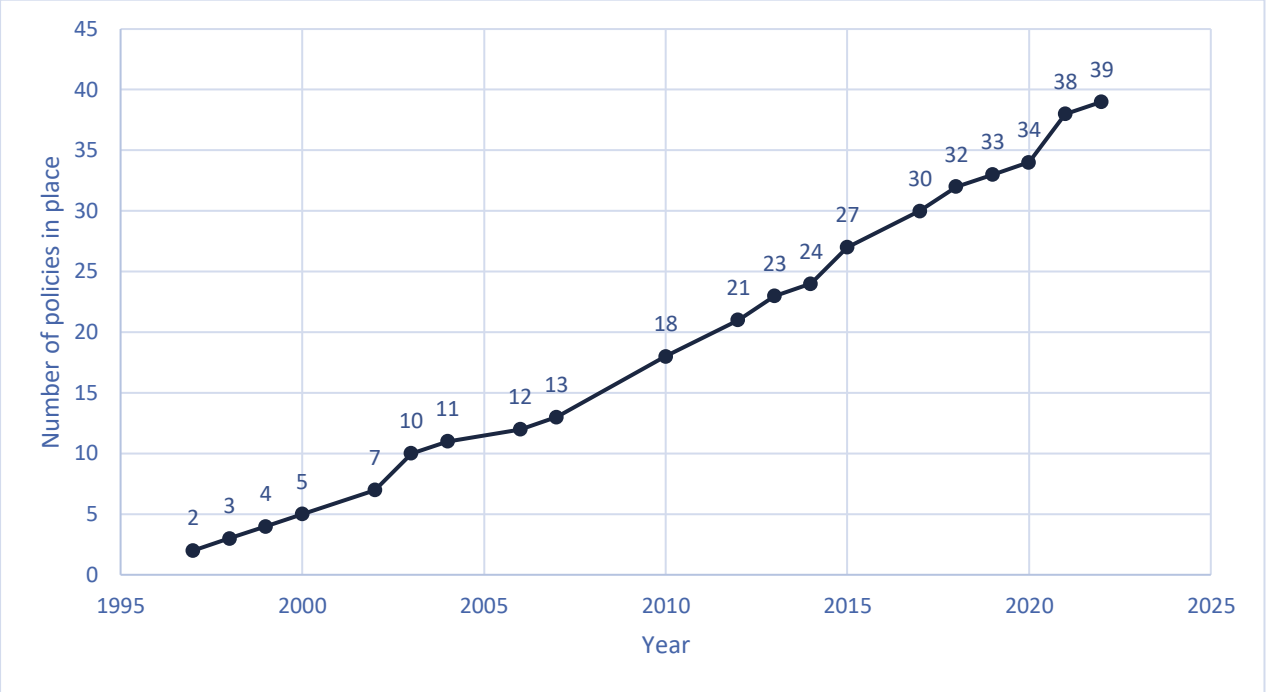
There are approximately 2 020 pages[17] of education policy accessible from this web page, which includes regulations, acts, protocols, and policies on topics such as:

- Learner attendance;
- Rights and responsibilities of parents, learners, and public schools;
- Prevention and management of learner pregnancy in schools;
- Rural education; and
- Curriculum.

Considered individually, these policies arguably cover important aspects of schooling and make provisions for learners, teachers, and other stakeholders within the system. However, the graph below demonstrates how the number of active education policies in South Africa has accumulated over time.

[13] Canadian School Boards Association. (nd). Public Education in Canada. Retrieved from https://www.cdnsba.org/public-education-in-canada/
[14] Republic of Botswana. (nd). Ministry of Basic Education. Retrieved from https://www.gov.bw/ministries/ministry-basic-education
[15] See https://www.education.gov.za/Resources/Policies.aspx
[16] Note that this figure excludes draft policies. See https://www.education.gov.za/Resources/Policies.aspx
[17] This excludes the individual National Curriculum and Assessment Policy Statements.

Figure 1 *Number of policies governing South African schooling by year the policy was published or gazetted*



The graph shows the cumulative growth of policies that govern South African schooling. How feasible is it to expect a full-time school principal or district officer to stay abreast of – let alone implement – two thousand pages of policy?

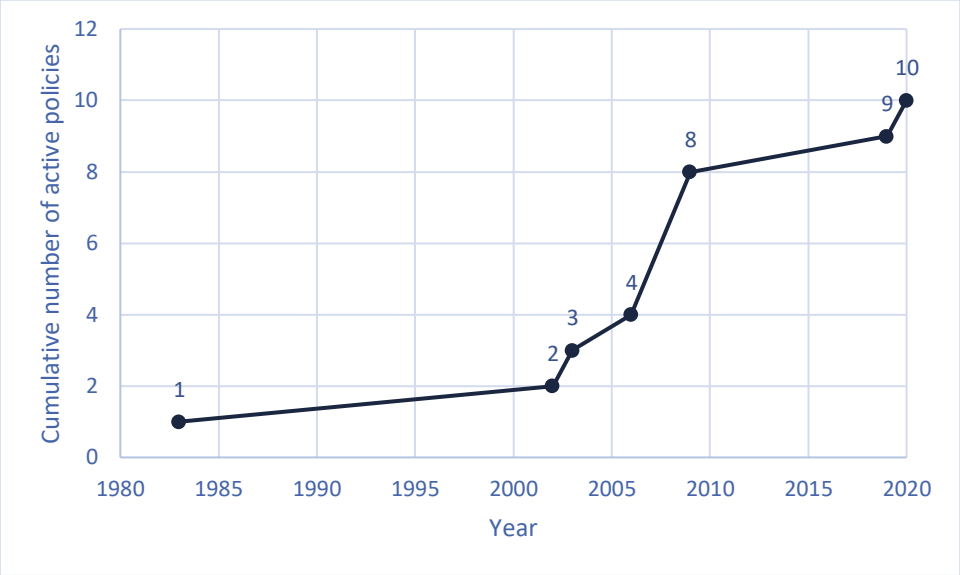
In addition to the policies mentioned above, the DBE introduced the National Curriculum and Assessment Policy Statements (CAPS) in 2012.[18] This comprehensive set of documents details the policy on curriculum and assessment in the schooling sector for each subject. It covers all levels of schooling, including Foundation Phase[19] (Grades Reception to 3), Intermediate Phase[20] (Grades 4-6), Senior Phase[21] (Grades 7-9), and Further Education and Training Phase[22] (Grades 10-12). The following subject areas are included in CAPS:

- Home language, with separate documents for all 11 official languages in South Africa;
- First additional language, with separate documents for all eleven official languages in South Africa;
- Mathematics; and
- Non-languages with separate documents for approximately 38 subjects including accounting, business studies, geography, history, and visual art.

This policy complexity is not unique to South Africa. There are diverse examples of countries with complex policy environments – small and large countries with varying levels of educational centralization in both developing and developed world contexts. In another example, Papua New Guinea's (PNG) Ministry of Education has eleven active policies constituting over 500 pages of active policy documents.[23] These include the Education Act, a Behaviour Management Policy, and a Human Resources Policy Information and Operations Manual. The graph below shows how these documents have accumulated over time.

[18] See https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS).aspx
[19] See https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSFoundation.aspx
[20] See https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSIntermediate.aspx
[21] See https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSSenior.aspx
[22] See https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSFET.aspx
[23] See https://www.education.gov.pg/quicklinks/documents.html

Figure 2 *Number of policies governing schooling in PNG by year the document was published or gazetted*[24]



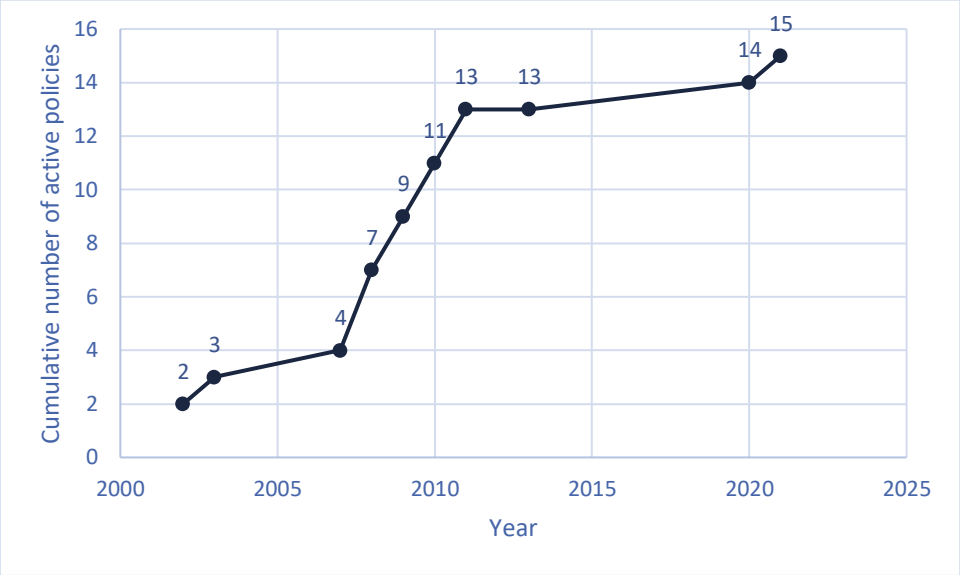
Similarly, in Guyana the Ministry of Education is largely responsible for education provision in the country. The Ministry's website contains 18 policy documents[25] ranging from its Education Sector Plan to a Policy for the Establishment and Operation of School Canteens.[26] The documents add up to approximately 786 pages. The graph below shows this accumulation of active policy documents in Guyana over time. The count includes policies, manuals, protocols, and plans.

[24] A document called 'Discipline of Teachers – Procedures' was excluded from this graph because it was not clear when it was published.

[25] One policy document was excluded from this count as only a draft could be located: the Equal Employment Opportunity, Anti-Discrimination and Harassment Policy. The link to the HIV policy was unavailable so it was excluded too.

[26] See https://education.gov.gy/web2/index.php/other-resources/other-files/policy-documents?limit=20&limitstart=0

Figure 3 *Number of policies governing schooling in Guyana by year the document was published or gazetted*[27]



Similarly, Kenya has 19 policies relevant to schooling and Technical and Vocational Education and Training (TVET).[28] Australia (Box 1), which has a larger and more decentralized education system than Guyana, is also dealing with a complex policy environment.

Box 1: Australia's education system

Australia has a largely decentralized education system with each of the six states and ten territory's education department setting its own educational policies. The New South Wales education department, for example, has a policy library with approximately 100 operational policies.[29] Its website also contains a section of 'consolidated policies' which combine 'related policy instructions [to] make it easier for schools to find the information needed to comply with mandatory requirements and make consistent and transparent decisions that suit the local context.'[30]

There are also several national education policies and frameworks including the Australian Curriculum, Assessment and Reporting Authority (ACARA), which is responsible for developing a national curriculum for all schools, and the Australian Education Act, which outlines the responsibilities of the federal government in funding and supporting education.

The Department of Education for the state of Victoria hosts a Policy and Advisory Library (PAL). PAL contains operational policies and guidance for schools. The website allows a user to filter policies by nine categories ranging from human resources to learning, teaching, curriculum, and improvement. The table below shows the number of active policies, operational guidance, and resources for each category.[31]

[27] The number '13' is plotted twice because the 2008-2013 Education Strategic Plan was in place until 2013 but was then replaced by the Education Sector Plan 2014-2018. In addition, a document called 'Discipline of Teachers – Procedures' was excluded from this graph because it was not clear when it was published.

[28] See https://www.education.go.ke/policies-0?keys=&page=1

[29] See https://education.nsw.gov.au/policy-library/policy-library-a---z

[30] New South Wales Education Department. (nd). Consolidated Policies. Retrieved from https://education.nsw.gov.au/policy-library/policy-article-3 [Accessed 31 March 2023]

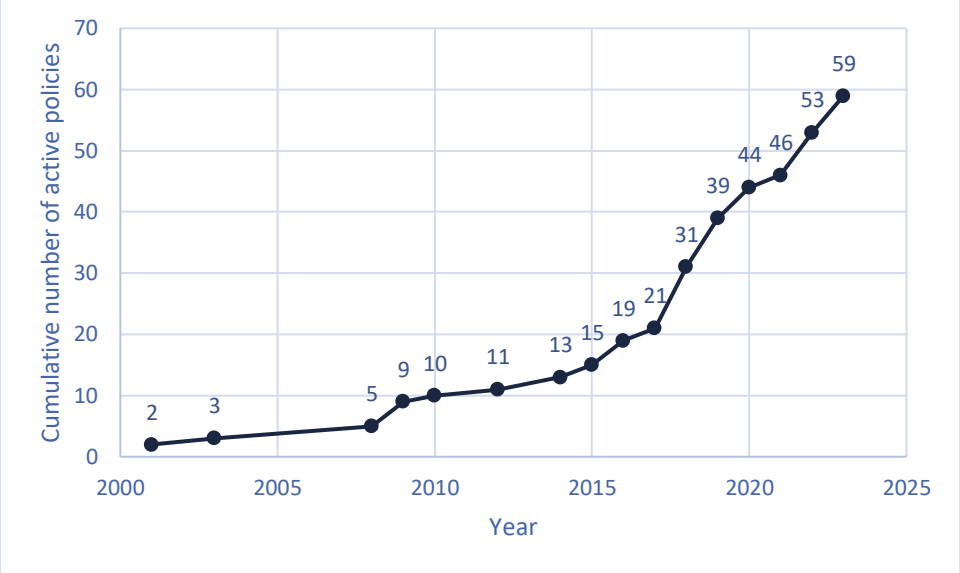
[31] See https://www2.education.vic.gov.au/filter-az?filters%5Bfield_pal_category_name%5D%5Btype%5D=term&filters%5Bfield_pal_category_name%5D%5Bvalues%5D=Learning%2C+teaching%2C+curriculum+and+improvement&page=1

Table 2 Policies operational guidance, and resources governing basic education in Victoria, Australia

Policy area	Number of policies
Human Resources	135
Finance and Procurement	27
Student Health, Safety, Wellbeing, and Engagement	97
Infrastructure and Facilities	53
Occupational Health and Safety	60
School Operations and Student Administration	132
School Councils	35
Learning, Teaching, Curriculum, and Improvement	56
Information Management, Security, and Technology	23
TOTAL	**618**

In a similar context, policies for the state of Western Australia's Department Education demonstrate the cumulative effect of policies over time. Western Australia currently has 58 active policies. In 2018 alone, the state added ten additional policies.

Figure 4 *Number of policies governing schooling in Western Australia by year the policy became effective*



Despite the evidence above, policy complexity does not apply to all education systems. Japan has three key policy documents governing education:

1. The Basic Act on Education[32], which sets out the aims and principles of education in accordance with the spirit of the Constitution.
2. The Basic Plan for the Promotion of Education, which outlines policy priorities, together with basic principles and measures to be taken for schooling.[33] Education reforms, as outlined in the Plan, focus on curriculum design, teacher education, school organization, financial support for non-mandatory stages of education, and lifelong learning.[34]

[32] See https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373798.htm
[33] See https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373797.htm
[34] Organisation for Economic Cooperation and Development (OECD). (2018b). Education Policy in Japan: Building bridges towards 2030. Retrieved from https://www.oecd.org/education/Japan-BB2030-Highlights.pdf

3. National curriculum guidelines (or 'Course of Study') which outline the curriculum for each subject and grade level. The Ministry of Education, Science, Sports, and Culture (MEXT) periodically revises these guidelines.

MEXT is the central educational authority which assists all levels of education throughout the country, especially at the municipal and prefecture level. Each of Japan's 47 prefectures has a board of education that coordinates education in that geographic unit. Each board comprises five members who are appointed by that prefecture's governor, approved by the legislative assembly, and serve for a four-year term. Education administration at the municipal level is managed by a municipal board of education, a group of five people selected by the mayor of the municipality.[35] According to school principals' self-reports in the Programme for International Student Assessment 2015, schools in Japan have high levels of autonomy over the curriculum, with 92.7% of principals reporting that their school had primary autonomy over curriculum, compared to the OECD average of 73.4%.[36]

Likewise, Finland is widely touted as having one of the most progressive and effective education systems in the world. The Ministry of Education and Culture defines education policy, while the Finnish National Agency for Education is responsible for its implementation. Educational autonomy is high at all levels. Local administration is the responsibility of local authorities, most commonly municipalities or joint municipal authorities. These make decisions on distribution of funding, local curricula, and recruitment of personnel. Municipalities also have autonomy to delegate decision-making power to schools. This autonomy filters down to the classroom level, where teachers are provided significant autonomy, while being guided by the National Core Curriculum.[37] The Ministry of Education and Culture uses three key policy instruments: legislation, financing, and information-based steering.

Despite this, the legislation on early childhood education and care, education and training, science institutions and research is quite broad and somewhat fragmented and contained in dozens of acts and decrees. In addition to legislation on the forms of education, there are separate statutes on financing, administration, eligibility, and social benefits for learners.[38] A tripartite partnership between government, trade unions, and employer organizations is an integral part of policymaking. As one source notes:

> *Governance has been based on the principle of decentralisation since the early 1990s. Education providers are responsible for practical teaching arrangements as well as the effectiveness and quality of the education provided. Local authorities also determine how much autonomy is passed on to schools. For example, budget management, acquisitions and recruitment are often the responsibility of the schools.*[39]

While policy complexity is not prevalent throughout all national or state-level education policy contexts, it is a common theme among many. Andrew, Pritchett and Woolcock (2017) explain that many countries are caught in 'capability traps' where 'they cannot perform the tasks asked of them, and doing the same thing day after day is not improving the situation; indeed, it is usually only making things worse.'[40] For these countries, reforms mainly exist on paper. They argue that simply adopting the right policies or laws, often based on what are considered 'best practice' examples from other countries, does not sufficiently ensure

[35] State University. (nd). Japan: Administration, Finance, & Educational Research. Retrieved from https://education.stateuniversity.com/pages/742/Japan-ADMINISTRATION-FINANCE-EDUCATIONAL-RESEARCH.html
[36] OECD. (2019). Education Policy Outlook 2019 : Working Together to Help Students Achieve their Potential – Japan. Retrieved from https://www.oecd-ilibrary.org/sites/5564ff4a-en/index.html?itemId=/content/component/5564ff4a-en
[37] The National Core Curriculum contains the objectives and core contents of teaching for all school subjects. It also describes the mission, values, and structure of education that drive Finnish education.
[38] Finnish Government. (2021). Education Policy Report of the Finnish Government. Retrieved from https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163273/VN_2021_64.pdf?sequence=1&isAllowed=y
[39] Council for Creative Education, Finland. (nd). Introduction to Finland Education. Retrieved from https://www.ccefinland.org/finedu#:~:text=Most%20education%20and%20training%20is,for%20their%20books%20and%20transport
[40] Andrews, M., Pritchett, L. and Woolcock, M. (2017). Building State Capability: Evidence, Analysis, Action. Oxford University Press.

effective state capability. Instead, breaking this cycle involves developing functional capabilities and then implementing them effectively. Instead of trying to implement off-the-shelf solutions, interventions should develop a deep understanding of the contexts they wish to serve and the key problems within those contexts. Solutions should then be developed and evolved iteratively, adapting based on what works and what does not.[41]

It would be conjecture as to why complexity appears to be a widespread feature among such diverse education systems. One might conclude that there are many well-intentioned efforts to improve aspects of schooling without consideration for how the whole system functions. **This approach also seems to be based on the philosophy that all interventions need to have a policy to govern them, and that the way to achieve micro-level transformation is through macro-level policy proclamations.** However, a serious consequence of this is to increasingly burden teachers, learners, and administrators.

Learner success and the granularization of curricula

Policy proliferation and complexity exists in education systems around the world, but what is its effect? To explore this, we will focus on one key manifestation of policy complexity: the growing granularization and density of national curricula. In terms of the curriculum, national education policies[42] generally define the goals and objectives of the education system, delineate educational priorities and standards, and guide the content and structure of the curriculum.[43] The curriculum is informed by these policies and guidelines, and is used to guide instruction in the classroom. The OECD explains curriculum as follows (emphasis added):

> ***Curriculum is a political, policy and technical agreement among the various institutions and stakeholders, from both inside and outside the education system, on why, what, how, when and where to educate and learn****…The curriculum is a key agent of the educational policy that contributes to the realisation of the type of society pursued. It entails a series of planned teaching and learning experiences. A curriculum should have quality (that is rigour, focus and coherence) and be relevant for learners. A curriculum can have different manifestations: the intended, implemented and attained curriculum.*[44]

Curriculum is theoretically a powerful mechanism to prepare learners to thrive in and shape the future. It can aid in creating consistent levels of quality across different types of education provision and age groups. It can also guide and support teachers and ensure continuity across different levels of education, thus promoting equitable education.[45] A curriculum provides a roadmap for the learner's experience and guides the teacher on the essential components of how and what specific competences to develop and outcomes to aim for. However, curriculum can equally limit learner or teacher creativity and agency. If its subject focus remains unaltered for a long time, it may lack responsiveness and context brought about by societal or ideological shifts.[46] For these reasons, discussions around curriculum have always been inherently political and often controversial.[47]

Such controversies include the extent to which curriculum-focused policies contribute to achieving learner success. **Success itself is a subjective term that might differ according to context, as well as differing**

[41] Andrews, M., Pritchett, L. and Woolcock, M. (2017). Building State Capability: Evidence, Analysis, Action. Oxford University Press.
[42] The same would apply for state or provincial education policies in countries where education policymaking happens at the provincial or state level.
[43] See https://unesdoc.unesco.org/ark:/48223/pf0000221189
[44] (OECD). (2018a). Education and Skills 2030: Curriculum analysis. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/Literature_review_on_flexibility_and_autonomy.pdf
[45] UNESCO International Bureau of Education. (2013). The Curriculum Debate: Why it is important today. UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000221328_eng
[46] OECD. (2020a). Curriculum (Re)design: A series of thematic reports from the OECD Education 2030 project. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/brochure-thematic-reports-on-curriculum-redesign.pdf
[47] UNESCO International Bureau of Education. (2013). The Curriculum Debate: Why it is important today. UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000221328_eng

communal values. Definitions of success vary depending on geography, culture, and a range of criteria that different stakeholders impose on a learner's educational path and post-school trajectory. Success is also dynamic. It changes from individual to individual and between different sets of circumstances or stages in one's life. Thus, definitions that focus on, say, academic or financial success to the exclusion of other dimensions will likely limit what individuals achieve and the fulfilment they derive from life. Encouragingly, some definitions of learner success are becoming more nuanced, with a greater emphasis on holistic development that includes emotional, social, and physical development in addition to traditional academic domains.[48]

Because there are varying conceptions of learner success, there are also different policy levers that are used to create 'successful' learners. Policies are a foundational component of education systems that are intended to promote learner success, however 'success' may be conceptualized by a given administration or stakeholder group. In turn, these policies filter down to the classroom level through the curriculum and teaching practice.

While curriculum is supposed to serve a crucial function in guiding teaching and promoting learner success, there are several examples of elaborate and granular curricula that are marred by competing policy interests and promote closed, narrow education systems with little interest in meaningful learner success. Increasingly granular curricula have been reported by researchers in both developed and developing countries, including Angola, Australia, China, the UK, Indonesia, Japan, Kenya, Malawi, the Netherlands, Zambia, and Zimbabwe. Such granularity, sometimes referred to as 'curriculum overload',[49] includes four dimensions:

- ***Curriculum expansion*** *refers to the tendency to include new content items in the curriculum in response to new societal demands without appropriately considering what items need to be removed.*
- ***Content overload*** *refers to the actual dimension of curriculum overload, rather than as it is perceived or experienced (i.e. the excessive amount of content to be taught and learned in relation to the time available for instruction).*
- ***Perceived overload*** *refers to the perceived or experienced dimension of overload, as reported by teachers and students.*
- ***Curriculum imbalance*** *refers to disproportionate attention given to certain areas of the curriculum at the expense of others without appropriate adjustments in the low priority areas.*[50]

Policy creep in the education sector has manifested through the increasingly centralized defining of curriculum in two notable ways: the use of standardized testing and a lack of teacher autonomy. Case studies below illustrate the prevalence of these issues, demonstrating how policy complexity filters down and creates sub-optimal educational conditions that do not support learner success or teacher autonomy at the micro level, or open and accessible education systems at the macro level.

[48] Cuseo, J. (nd). Student Success: Definition, Outcomes, Principles and Practices. The Big Picture. Retrieved from https://www2.indstate.edu/studentsuccess/pdf/defining%20student%20success.pdf
Shanker, S. (2014). Broader Measures of Success: Social/ Emotional Learning. People for Education. Retrieved from https://peopleforeducation.ca/wp-content/uploads/2017/06/MWM-Social-Emotional-Learning.pdf
Datnow, A., Park, V., Peurach, D.J. and Spillane, J.P. (2022). Transforming Education for Holistic Student Development: Learning from education system (re)building around the world. Brookings. Retrieved from https://www.brookings.edu/wp-content/uploads/2022/09/Brookings_Report_Tranforming-ed-for-holistic_FINAL.pdf
[49] Voogt, Nieveen and Klopping (2017) in OECD. (2020b). Curriculum Overload: A way forward. Retrieved from https://www.oecd-ilibrary.org/education/curriculum-overload_3081ceca-en
[50] Taken verbatim from OECD. (2020b). Curriculum Overload: A way forward. Retrieved from https://www.oecd-ilibrary.org/education/curriculum-overload_3081ceca-en

The use of standardized testing

Standardized testing[51] provides an example of how disempowerment of teachers and curtailment of learner success can occur through well-intentioned policy interventions. It was introduced through several countries' education policies in the 19th and 20th centuries and has since become a common feature within many national education systems.[52] Policymakers and other stakeholders saw myriad benefits of standardized tests,[53] including that they would aid more accurate assessment of learning and comparability of learner performance across schools, districts, and even countries.[54] This would, in theory, allow policymakers to analyse learner performance, channel resources to schools more strategically, and provide feedback for teachers and administrators on areas for improvement. Another proposed benefit was greater alignment between the curriculum and testing standards, the reasoning being that ensuring the curriculum matched testing standards would provide learners with the knowledge and skills for success.

Standardized testing is indeed implemented with the intention of improving key metrics within the education system. However, since its introduction, several issues have arisen. At the heart of these issues has been a socio-economic imperative to standardize knowledge acquisition through a centrally defined curriculum to prepare young people for the workforce. In the United Kingdom (UK), widespread use of standardized examinations was made possible by the Thatcher administration. As Ozga (2009) notes,

> *The Conservative government project from 1979-97 became more and more focused on economic and efficiency as measures of educational performance; its associated measures were those of outputs and stressed managerial or consumer/contract based accountability.*[55]

England's Education Reform Act was introduced in 1988, together with its National Curriculum. The Act established the use of national testing and a standardized highly structured curriculum, which outlines subjects and objectives for each level of schooling. It prescribes the knowledge that learners should hold in subjects like English, science, mathematics, and history. This includes a system of key stage tests, or Standard Assessment Tasks (SATs) that learners take at the end of each key stage of their schooling. The SATs are intended to assess learners' progress in knowledge acquisition and determine whether they are eligible to move to the next stage. This also ushered in the publication of comparisons of school performance, which ranks schools according to learner achievement. Due to the competition it created, schools began to vie for the best learners. Several studies have found a negative impact of the British testing approach,[56] including that teachers reported 'feeling frustrated at having to work to an externally imposed agenda, and feeling uncreative and unprofessionalised'.[57]

---

[51] For these purposes, 'standardised tests' refer to national or sub-national tests that are taken by all learners at the same grade level and that test the same material. Such tests are administered and scored in a consistent way.

[52] Lau, M. (2022). Student Testing: An international context. Fraser Research Bulletin. Retrieved from https://www.fraserinstitute.org/sites/default/files/student-testing-an-international-context.pdf

[53] In the 2018 World Development Report, the World Bank states: 'There is too little measurement of learning, not too much… An assessment of capacity to monitor progress toward the United Nations' Sustainable Development Goals found that of the 121 countries studied, a third lack the data required to report on the levels of reading and mathematics proficiency of children at the end of primary school.' See https://www.iri.edu.ar/wp-content/uploads/2018/07/ri-54-SG-doc-BM-World-Development-Report-2018-Learning-to-Realize-Educations-Promise.pdf

[54] See for example https://www.oecd.org/pisa/aboutpisa/

[55] Ozga (2009) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjglDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[56] See Alexander (2009); Boyle and Bragg (2006) and West (2010) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjglDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[57] Perryman *et al* (2011) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from

Focusing on primary schools in England, the National Education Union (NEU) argues that current testing approaches are not fit for purpose. For example, Clark and Glazzard (2019) note that, in a phonics screening check with a sample of over 1,100 teachers, 'less than 10% thought the phonics check provided them with information on individual children that they did not already have.'[58] Bradbury (2019) adds, '83% of heads think SATs have a negative impact on pupils' wellbeing. 74% admit to "teaching to the test" because of the pressure to get good results.'[59] This provides significant evidence of misalignment between policy objectives and implementation on the ground. The fact that such comprehensive policies were put in place to assess learner achievement but fall short in doing so indicates that they fail to fulfil their function. Instead, such approaches promote a closed, self-perpetuating system of standardized knowledge acquisition to pass a subjectively defined test of learner achievement.

Governments have also touted increased accountability and access to data as being highly beneficial for improving education systems and have introduced policies that enforce these measures. A recent study by Bergbauer, Hanushek, and Woessmann (2018) found that accountability systems[60] that incorporated use of standardized testing had a positive effect on learner outcomes:

> *Accountability systems that use standardised tests to compare outcomes across schools and students improve student outcomes. These systems tend to be consequential and produce higher student achievement than those that simply report the results of standardised tests. They also produce better achievement results than systems relying on localised or subjective information that cannot be readily compared across schools and classrooms, which are found to have little impact on student achievement.*[61]

However, other evidence contradicts these findings and highlights the negative effects of accountability systems. Australia implemented the 'National Assessment Program: Literacy and Numeracy' (NAPLAN) testing system from 2008 and established ACARA (see Box 1). NAPLAN sought to create increased accountability and to improve educational outcomes. To this end, ACARA's MySchool website gives users online data on school performance, which has become contentious. While some teachers see it as a valuable way to identify gaps in learning, others observed that it was a tool for 'policing' and 'ranking' schools.[62] It has been criticized for narrowing the curriculum and increasing the stress that learners and teachers experience.[63]

While increased accountability and standardized testing is argued to provide a way to reduce inequalities in education systems, often the opposite results and diverse learners are excluded. For example, NAPLAN has come under increased scrutiny for its impact on remote indigenous communities, with one qualitative study finding that 'the language and content of the test instruments, the nature of the test engagement, and the test washback have negative impacts on learners and staff, with little benefit in terms of the usefulness

---

https://books.google.ca/books?hl=en&lr=&id=pjglDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[58] Clark and Glazzard (2019) in National Education Union. (nd). *Too Much Testing: The alternative*. Retrieved from https://neu.org.uk/media/8076/view

[59] Bradbury (2019) in National Education Union. (nd). Too Much Testing: The alternative. Retrieved from https://neu.org.uk/media/8076/view

[60] An accountability system is the set of policies and practices that a state or national government uses to measure and hold schools or districts responsible for improving or maintaining student achievement for all students.

[61] Bergbauer, A.B., Hanushek, E. and Woessmann, L. (2018). Testing with Accountability Improves Student Achievement. Retrieved from http://hanushek.stanford.edu/sites/default/files/publications/Bergbauer+Hanushek+Woessmann%202018%20VOX%209-19-2018.pdf

[62] Polesel, Rice and Dulfer (2014) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjglDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[63] See https://www.abc.net.au/news/2012-11-26/naplan-tests-putting-kids-under-stress-study-says/4391452

of the test data'.[64] The main reason for this, the author explains, is that the tests require proficiency in Standard Australian English as a first language.[65] Similarly, in South Africa, South African learners take a series of final exit examinations at the end of Grade 12 to complete high school and determine college acceptance. However, the system has been viewed as controversial, with some claiming it does not account for structural inequality stemming from colonization and apartheid which remains pervasive today:

> *Many claim that the pass rate and the test itself needs to be looked at with a more complex lens. Discrepancies between students who are wealthy and students who are lower-income, as well as residual education gaps stemming from apartheid, has led many to argue that the test cannot be used as a standardised form for success.*[66]

These cases explain why context should not be removed from the policymaking process. **Centrally defined, reform-targeted standardized testing cannot always accommodate varying contexts and needs, and it is often sub-groups within a population who suffer as a result.**

Similarly, challenges with the Meitzav testing regime are exacerbated by the complexities of Israeli society, geographically, in terms of the centre versus the periphery, and regarding the ethnic diversity and socio-economic backgrounds of learners (see Box 2).

Standardized testing has also revealed inequities in Nigeria, highlighting the rural-urban divide. As Ekoh (2012), referring to Adelabu (2008) and Aderonmu (2010), notes:

> *While 70% of Nigerians reside in rural areas, the curriculum and textbooks for primary and secondary studies remain mostly urban based and detached from the concerns of rural communities.*[67]

Although some might argue that standardized testing perpetuates existing inequalities within education systems, these examples also demonstrate that limited use of standardized testing is a useful policy tool to identify where the system is failing learners. The main problem is when it becomes the dominant form of individual learner assessment.

Increased reliance on standardized testing can narrow the educational focus when it should be broadened so that learners can fully explore their own capabilities and develop an affinity for learning. Likewise, it can impact a teacher's ability to lay a strong foundation on key competences like literacy and numeracy. A qualitative interpretative case study on NAPLAN explored the pedagogies of two Year 3, Year 5, and Year 7 teachers at two Queensland schools. The findings showed how increased explicit teaching of NAPLAN content and procedural knowledge prior to testing could negatively impact the teaching of everyday literacy and numeracy skills and knowledge that extended beyond what was included in NAPLAN. The study found that such teaching limited opportunities for what teachers reported as valued collaborative learning contexts aiming for long-term literacy and numeracy results.[68]

This constrained curriculum emphasis promotes tested courses above other subjects by default, which stifles imagination, critical thinking, and problem-solving abilities. Additionally, because it evaluates a limited range of learners' abilities, it falls short of accurately measuring whether they are reaching their

---

[64] Macqueen, S., Knoch, U. and Brickle, R. (2018). The Impact of National Standardized Literacy and Numeracy Testing on Children and Teaching Staff in Remote Australian Indigenous Communities. *Sage Journals*, 36(2). Retrieved from https://journals.sagepub.com/doi/10.1177/0265532218775758

[65] Macqueen, S., Knoch, U. and Brickle, R. (2018). The Impact of National Standardized Literacy and Numeracy Testing on Children and Teaching Staff in Remote Australian Indigenous Communities. *Sage Journals*, 36(2). Retrieved from https://journals.sagepub.com/doi/10.1177/0265532218775758

[66] Salaky, K. (2018). What standardized tests look like in 10 places around the world. Insider. Retrieved from https://www.insider.com/standardized-tests-around-the-world-2018-9

[67] Ekoh, I. (2012). High-Stakes Standardized Testing in Nigeria and the Erosion a Critical African Worldview. Master's Thesis, Graduate Department of Humanities, Social Sciences and Social Justice Education University of Toronto. Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/33647/1/Ekoh_Ijeoma_201211_MA_thesis.pdf

[68] Ward, D.M. (2012). The Effects of Standardised Assessment (NAPLAN) on Teacher Pedagogy at Two Queensland Schools. Retrieved from https://eprints.qut.edu.au/63662/1/Donna_Ward_Thesis.pdf

potential. This may have a detrimental effect on learners' academic progress and diminish their overall enthusiasm for learning.

Box 2: The impact of the standardized testing regime in Israel

Israel designed the Meitzav tests as a low-stakes testing regime.[69] It was introduced in 2002 as part of a change in the Israeli education system, shifting from a focus on school autonomy and teacher professional development to a policy that focuses on core curriculum and assessment of learner achievement.[70] It comprises learner achievement tests for grades two, five, and eight, together with questionnaires on school environment and other pedagogical features. The four main areas of language (Hebrew or Arabic), mathematics, English, and science are used to gauge learner achievement. The assessment, which is based on Israeli curricula, aims to examine 'the extent to which school learners in elementary and junior-high schools achieve the expected level required of them according to these curricula'.[71]

Despite it initially being conceived as a low-stakes testing regime, a study on the Meitzav tests found four negative consequences of the regime (some of which are often associated with high-stakes testing). These are:

1. Increased pressure on teachers and principals;
2. Diversion of resources to tested subjects and grades;
3. Teaching to the tests; and
4. Focusing efforts on learners near the passing threshold.[72]

In addition, there have been questions about whether Meitzav is a fair and equitable system. Such questions do not necessarily make an argument against the use of the tests, but rather demonstrate how they reveal inequities without necessarily being responsible for them. Children living in the centre of the country generally do better in these standardized tests than their counterparts in the periphery of the country (far north and far south), which is poorer.[73] Many learners in the periphery areas are from 'Mizrachi' families who come from Jewish communities in North Africa and the Middle East, while those in the centre of the country tend to be 'Ashkenazi,' Jews from Europe. There are Mizrachi-Ashkenazi tensions that affect all layers beyond educational success, most notably everything to do with politics.[74] A key reason for such disparities is related to resourcing. One principal from the southern district described the access that learners in the centre had to private lessons funded by the parents who can afford them:

> *Look at the socioeconomic cross-section too. Children from Raanana have much a higher chance of doing well because of the support through private lessons. Much more than us. They spend a lot of money on private lessons. So, if I as the teacher don't manage to teach all the material because the Ministry of Education doesn't make it possible for me, the child completes it at home. You understand… I have to use lots of things that are not related to studying in order to succeed. I have to promote the student's motivation, to see that he studies constantly, that he works hard after school as well, and that he wants to succeed, and so on.*[75]

[69] 'Meitzav' is a Hebrew acronym for Growth and Efficiency Measures of Schools

[70] Yogev (2007) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjgIDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[71] Beller (2010) in Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjgIDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[72] Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjgIDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

[73] See https://pdfs.semanticscholar.org/8d0d/51cfd84d79dc86a22b001e422a484c03cc3c.pdf

[74] Elia-Shalev, A. (2022). Inequality Between Israel's Mizrahi, Ashkenazi Jews to be Measured in New Statistics. Retrieved from https://www.timesofisrael.com/inequality-between-mizrahi-ashkenazi-jews-to-be-measured-with-new-statistics/

[75] Harus, E.B. and Davidovitch, N. (2021). On Management Processes in Education Towards International Exams – The case of the Meitzav. *International Journal of Pedagogy Innovation and New Technologies*, 8(1). Retrieved from https://ijpint.com/api/files/view/1662004.pdf

Two other communities skew Meitzav test results – Arab Israelis and the ultra-orthodox Jewish population, the latter who by and large do not permit their children to study secular subjects.[76] Arab learners do poorly in comparison to Jewish learners.[77] Learners in ultra-orthodox communities also do poorly when the schools permit its learners to take these standardized tests, which is not often.[78]

Curriculum issues also arise when there are conflicting provisions within or across national education policies. Research in Israel showed that government policies which aimed to promote school autonomy and simultaneously implement 21st century curriculum practices lacked alignment. While school autonomy was encouraged, methods used to implement 21st century curriculum practices included the use of external monitoring and high-stakes testing, eroding that school autonomy.[79]

Similar contradictions were observed in Singapore, where schools can act autonomously in rolling out co-designed lesson plans that seek to teach inquiry-based learning but are held accountable for their results with respect to learning, creating a disincentive to teach beyond the constraints of the nationally mandated curriculum.[80] Inherent contradictions in how these systems operate mean that they fail to understand the foundational principle of education as discovery, iteration, and learning to learn. **Without opening the educational environment and acknowledging the nuances within these forces and interactions, policies end up being reductive and overly prescriptive.**

An increased reliance on standardized testing can lead to negative consequences. In Ghana and elsewhere across the continent, standardized tests have been found to serve as a 'gatekeeper' to maintain a manageable number of learners passing through the system, particularly at the post-secondary level.[81]

Analysis of the 2021 Kenya Certificate for Secondary Schools (KCSE) results reveals issues with the school system, standardized testing, and government education policies. The analysis, conducted by the African Population and Health Research Center (APHRC), outlined the following issues:[82]

- More than half of learners scored a D+ or below, demonstrating the weakness of the educational system, making these learners ineligible for university admission, and putting pressure on the country's TVET system, which might not have the capacity to absorb these learners.
- There were increased numbers of examination irregularities, which led to the cancellation of 441 examination results, up from 287 in 2020.
- Transition from primary school to secondary school had dropped.

APHRC points to the importance of adequate secondary schooling, as follows:

[76] Tur-Paz, S.R. and Malach, G. (2023). On the Haredi Educational System. Retrieved from https://en.idi.org.il/articles/49956
[77] Inter-Agency Task Force on Israeli Arab Issues. (2019). Gaps Between Jewish and Arab High School Students in Matriculation Exam Achievements. Retrieved from https://www.iataskforce.org/activities/view/905
[78] Kadaria-Ovadia, S. (2019). Arab and Ultra-Orthodox Students in Israel Lagging in English Skills, Report Shows. Haaretz. Retrieved from https://www.haaretz.com/israel-news/2019-01-10/ty-article/.premium/arab-and-ultra-orthodox-students-falling-behind-on-english-skills-report-shows/0000017f-e8cf-df5f-a17f-fbdf579c0000
[79] Nir, Boglar, Inbar and Zohar (2016) in OECD. (2018a). Education and Skills 2030: Curriculum analysis. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/Literature_review_on_flexibility_and_autonomy.pdf
Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjglDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false
[80] Toh, Hung, Chua, He and Jamaludin (2016) in OECD. (2018a). Education and Skills 2030: Curriculum analysis. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/Literature_review_on_flexibility_and_autonomy.pdf
[81] Baidoo-Anu, D. and Baidoo, I.E. (2022) Performance-Based Accountability: Exploring Ghanaian teachers' perception of the influence of large-scale testing on teaching and learning, Education Inquiry, DOI: 10.1080/20004508.2022.2110673
[82] Abuya, B.A. (2022). THE 2021 KCSE Results, Form One Admission Crisis and Status of Secondary Education in Kenya. African Population and Health Research Centre Retrieved from https://aphrc.org/blogarticle/the-2021-kcse-results-form-one-admission-crisis-and-status-of-secondary-education-in-kenya/

> *Secondary education remains critical in the career paths that young Kenyans can take and not performing well in secondary school has great ramifications for their future. A recent report by Usawa Agenda notes that the grade a learner obtains in their KCSE examinations is not entirely dependent on their ability and effort and that many factors impact the grade, most of them outside the learners' control. And yet, the learners bear the full responsibility for the grades they obtain.*

APHRC cites poverty as the reason for lack of the children's attendance in school, infrastructure issues in the schools, and the Teachers Service Commission (TSC) policy of sending its teachers to national and other public schools where the children do well.

The evidence presented above is not an indictment on standardized testing altogether, but rather illustrates how it can be misused as the main determinant of learner success and how it therefore creates educational closure when it is deployed beyond what it is intended to do. As Perry (2021) explains:

> *We currently use standardised tests well beyond what they were designed to do, which is to measure a few areas of academic achievement. Achievement tests were not designed for the purposes of promoting or grading students, evaluating teachers, or evaluating schools. In fact, connecting these social functions to achievement test data corrupts what the tests are measuring. In statistics, this is called Campbell's Law. When a score has been connected to a teacher's pay or job status, educators will inevitably be drawn toward teaching to the test, and schools toward hiring to the test and paying to the test, rather than making sure students get the well-rounded education they need and deserve.*[83]

Similarly, Robinson and Aronica (2016) notes how standardization should be applied carefully and with limited scope:

> *In some areas, it's good to set standards, and that's true of education too. There are two problems, though. The first, as I keep saying, is that people don't come in standard versions. For personalised education to work, it has to be sensitive to all the differences we've discussed. That means that standards have to be applied with proper care. The second problem is that only some areas of education lend themselves to being standardised. Many of the most important developments that schools should be encouraging do not.*[84]

The feedback aspect of complexity theory has relevance here. Complexity theory moves away from the idea of linear, universal, controlled systems in favour of examining systems holistically and accounting for context, non-linearity, and a level of unpredictability.[85] **The theory implies that it is impossible for policies to truly control what happens in the classroom and that any attempt at standardization and fully-fledged control is not possible because of the number of relationships and functions involved. Attempting to impose this control through a myriad of policies consequently disempowers those within the system and creates educational closure which, in turn, impedes learner success.**

The evidence above suggests that passing a standardized test is not equal to improving the quality of education. While it may lead to better marks for some, it may also result in more dysfunctional learners who do not have a full grasp of their competences after their formal schooling is complete. Although policy plays a critical role in setting standards for educational delivery and promoting equity across a given population, there is much to be said for creating a balance within education systems that values schools primarily as sites of learning instead of sites for the enactment of curriculum and policy.

---

[83] Perry, A. M. (2021). Standardized Tests Aren't the Problem, it's How We Use Them. Brookings Institution. Retrieved from https://www.brookings.edu/blog/brown-center-chalkboard/2021/03/30/standardized-tests-arent-the-problem-its-how-we-use-them/

[84] Robinson, K. and Aronica, L. (2016). Creative Schools: The grassroots revolution that's transforming education. Penguin Books.

[85] Cohen, L., Manion, L. and Morrison, K. (2007). Research Methods in Education. Routledge. Retrieved from https://gtu.ge/Agro-Lib/RESEARCH%20METHOD%20COHEN%20ok.pdf

A note on high-stakes testing

The terms 'standardized testing' and 'high-stakes testing' are sometimes used interchangeably, but there are key differences between the two. Standardized tests evaluate test takers on the same source material and are administered and scored in a consistent way. High-stakes tests have significant consequences (positive or negative) for the learner taking the test, for the teacher, or for the school. For example, high-stakes testing might determine whether a learner moves to the next grade, whether a teacher receives a good evaluation, or the amount of funding a school receives. The Intercultural Development Research Association (IDRA) (2002) adds:

> *To be high stakes, a test has to be very important in the decision process or be able to override other information (for example, a student does not graduate if he or she does not pass the test regardless of how well he or she did in school).*[86]

So, while all high-stakes tests can be considered standardized tests because they have consistent administration and scoring, not all standardized tests are high-stakes.

High-stakes tests have become more problematic as curricula have become more detailed. The IDRA elaborates:

> *It drives students and teachers away from learning, and at times from school. It narrows, distorts, weakens and impoverishes the curriculum while fostering forms of instruction that fail to engage students or support high-quality learning.*[87]

Dichotomous views of 'right' and 'wrong', or 'pass' and 'fail' introduced by high-stakes standardized testing (with negative connotations surrounding the latter) mean that failure is seen as a lack of intelligence or character instead of an important part of learning. The fact that these tests are presented as a 'make or break' moment for one's success at school and throughout one's life can increase anxiety and stress amongst learners[88] at a critical formative time in their psychological development. Research found that looming high-stake tests led learners' cortisol levels, a chemical marker for stress, to spike and fall significantly. These patterns 'were associated with underperformance on the high-stakes test, relative to what we would have expected from students given their in-school academic performance and other characteristics.'[89]

There are also issues with the validity and reliability of high-stakes tests. Research has found that test preparation can misrepresent test results and lead to distorted interpretations of learning gains.[90] A single test score may not accurately represent a learner's abilities or the quality of teaching they have been exposed to. Thus, basing weighty decisions on these scores can be problematic.

High-stakes testing has also had mixed results in preparing learners for life beyond school, in some cases failing to equip learners with a strong sense of their own interests. A recent article arguing for a more flexible curriculum approach in South Africa (where learners take their matric examinations that determine their eligibility for university entrance) notes:

---

[86] Intercultural Development Research Association. (2002). The Dangerous Consequences of High-Stakes Testing, FairTest, the National Center for Fair and Open Testing. Retrieved from https://www.idra.org/resource-center/the-dangerous-consequences-of-high-stakes-testing/#:~:text=It%20drives%20students%20and%20teachers,or%20support%20high%2Dquality%20learning.

[87] Intercultural Development Research Association. (2002). The Dangerous Consequences of High-Stakes Testing, FairTest, the National Center for Fair and Open Testing. Retrieved from https://www.idra.org/resource-center/the-dangerous-consequences-of-high-stakes-testing/#:~:text=It%20drives%20students%20and%20teachers,or%20support%20high%2Dquality%20learning.

[88] See, for example, https://digitalcommons.csumb.edu/cgi/viewcontent.cgi?article=1460&context=caps_thes_all

[89] Heissel, J.A., Adam, E.K., Doleac, J.L., Figlio, D.N. and Meer, J. (2018). Testing, Stress, and Performance: How Students Respond Physiologically to High-Stakes Testing. National Bureau of Economic Research. Retrieved from https://www.nber.org/papers/w25305

[90] Jones, M.G. and Ennes, M. (2018). High-stakes Testing. Oxford Bibliographies. Retrieved from https://www.oxfordbibliographies.com/display/document/obo-9780199756810/obo-9780199756810-0200.xml

> *We found that most students didn't enter university with fully formed ideas of their interests and strengths. The experience of knowing exactly what they wanted to do, coming to university and seamlessly doing it, was rare.*[91]

This suggests that policies might create false equivalence between achievement in high-stakes tests and learner success, which ultimately benefits nobody.

Fundamentally, there is an over-elaboration of curriculum outcomes at the national level, combined in many cases with excessive standardized testing and high-stakes examinations to test learner knowledge in a granular way. This is not just an ineffective approach for measuring performance, but also a function of complexity at the macro level of the education system which results in disempowerment of learners at the micro level.

Teacher autonomy and agency

When complexity is enshrined in the educational policy environment, it filters down to all levels of that system. As Levin (2007) observes, 'many curriculum questions are as much about teaching practice as about curriculum documents'.[92] Despite decentralization receiving a lot of attention in recent policy discussions, several countries have actually increased the power of central authorities in establishing standards, curricula, and assessments. For instance, relaxing central control over 'processes' and financial regulations has frequently coincided with increasing control that central levels of the system exert over 'outputs'. This could be a result of increased interest in accountability measures such as national evaluations and examinations based on centralized curricula or frameworks.[93] These measures tend to be singularly focused, viewing interactions in isolation, instead of acknowledging the complexity of the education system and the varying contexts that it is intended to serve.

Teachers often bear the brunt of overly complex national educational policy environments, and policies related to curriculum are no exception. There are several potential negative impacts of curriculum policy creep, including:

1. **Greater workload**: Teachers may be expected to devote more time to activities such as getting learners ready for examinations, assessment and grading, record-keeping, and parent communication, and less time to other crucial facets of instruction like building relationships with learners and encouraging creativity.
2. **Reduced motivation**: Teachers may experience a decrease in motivation and job satisfaction because of increased emphasis on standardized testing and the associated high-stakes accountability measures.
3. **Added stress and anxiety**: Teachers may feel more stressed and anxious because of pressure to get high test scores and the concern that their evaluations will be based on those numbers. This may result in performativity issues where teachers 'check all the boxes' but are not invested in the learning process.

[91] Marshal, D. (2018). A More Flexible Curriculum Approach Can Support Student Success. The Conversation. Retrieved from https://theconversation.com/a-more-flexible-curriculum-approach-can-support-student-success-92751 [Accessed 15 June 2023]
[92] Levin, B. (2007). Curriculum Policy and the Politics of What Should be Learned in Schools in (Connelly, M., He, M. and Fillion, J. (eds) *Handbook of Curriculum and Instruction.* Sage. Retrieved from https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=e2279167d3c33a3a944e625e6c46199565b47361
[93] OECD. (nd). School Autonomy. OECD. Retrieved from https://gpseducation.oecd.org/revieweducationpolicies/#!node=41701&filter=all

4. **Narrow curriculum**: Teachers might be forced to teach a more limited curriculum that only needs to cover topics that will be tested, which would limit their capacity to include other crucial topics and instructional strategies.[94,95,96]

At the root of these issues, however, is that teachers experience a lack of autonomy[97] and decision-making authority in the classroom. The degree of autonomy that teachers have can vary significantly depending on various factors, including cultural, political, and economic circumstances, but some countries show evidence of the link between complex, overly prescriptive education policy environments and reduced teacher autonomy. The United States (US) provides a good example of this. As part of federal and state education policy such as the No Child Left Behind Act of 2001, standardized testing and accountability measures have been established in recent years. This was aided by the Race to the Top programme, an incentives-based state-level scheme implemented in 2009. The programme focused on four areas of reform at the K-12 level:

1. Development of rigorous standards and better assessments;[98]
2. Adoption of better data systems to provide schools, teachers, and parents with information about learner progress;
3. Support for teachers and school leaders to become more effective; and
4. Increased emphasis and resources for the rigorous interventions needed to turn around the lowest-performing schools.[99]

Such policy decisions led to teachers reporting feeling more constrained. The emphasis on standardized testing has led teachers to focus more on test preparation than on novel and creative teaching strategies. For example, one study observed statistically significant negative correlations between teaching in a Race to the Top Phase I or II state and teachers' perceptions of their school-level influence, curricular autonomy, and pedagogical autonomy.[100] In data from the National Centre for Education Statistics, teachers reported less classroom autonomy in school year 2011-12 compared to 2003-04.[101] One Finnish teacher observed, 'in the United States, policymakers talk a lot about giving autonomy to *schools* that stops at the district or administrative level and often results in decision making that ignores the voices of educators and the community'.[102]

Conversely, teachers in Finland generally experience far greater autonomy and are considered pedagogical experts. They are given independence in the classroom and have decision-making authority regarding school

[94] Winter, C. (2017). Curriculum Policy Reform in an Era of Technical Accountability: 'Fixing' curriculum, teachers and students in English schools. *Journal of Curriculum Studies*, 49(1):55-74. Retrieved from https://www.tandfonline.com/action/showCopyRight?scroll=top&role=tab&doi=10.1080%2F00220272.2016.1205138

[95] Abrams, L.M. (2004). Teachers' Views on High-stakes Testing: Implications for the classroom, Policy brief. Retrieved from https://files.eric.ed.gov/fulltext/ED483722.pdf

[96] Barrett, B.D. (2009). No Child Left Behind and the Assault on Teachers' Professional Practices and Identities. *Teaching and Teacher Education*, Vol. 25. Retrieved from https://tinyurl.com/5ec29xzc

[97] Autonomy refers to the domain of influence where a person or group has decision-making power and responsibilities. In the context of education, the term can be taken at a meso and micro level. At the meso level, autonomy can be granted to schools, school boards or school districts. At the micro level it is usually associated with teacher autonomy. See https://www.oecd.org/education/2030-project/contact/Literature_review_on_flexibility_and_autonomy.pdf

[98] Standardised testing is disliked by many US parents, who refuse to allow their children to be tested. Although parents around the country object to the system, New York State has been most notable for parent 'opt out' strategies. In New York City, there is a website that gives parents help in how to opt out of standardised testing. See www.nytimes.com/2015/04/14/nyregion/despite-opposing-standardized-testing-many-new-york-parents-and-students-opt-in.html

[99] Taken verbatim from The White House, President Barack Obama. (nd). Race to the Top. Retrieved from https://obamawhitehouse.archives.gov/issues/education/k-12/race-to-the-top

[100] Wright, K. B., Shields, S. M., Black, K., Banerjee, M., and Waxman, H. C. (2018). Teacher Perceptions of Influence, Autonomy, and Satisfaction in the Early Race to the Top Era. *Education Policy Analysis Archives*, *26*(62). Retrieved from https://epaa.asu.edu/index.php/epaa/article/view/3449

[101] Walker, T. (2016). Teacher Autonomy Declined Over Past Decade, New Data Shows. NEAToday. Retrieved from https://www.nea.org/advocating-for-change/new-from-nea/teacher-autonomy-declined-over-past-decade-new-data-shows

[102] Walker, T. (2016). Teacher Autonomy Declined Over Past Decade, New Data Shows. NEAToday. Retrieved from https://www.nea.org/advocating-for-change/new-from-nea/teacher-autonomy-declined-over-past-decade-new-data-shows

policy and management.[103] This autonomy is coupled with comprehensive training which allows teachers to make informed decisions both inside and outside the classroom; Finnish teachers are only considered for entry into the profession once they have a master's degree. Once employed, they also undertake two hours of professional development a week.[104] **Teachers play an invaluable role in facilitating learning in the classroom,[105] so policy decisions that constrain their decision making and their ability to create engaging learning environments fail to acknowledge their role as professionals.**

Lack of autonomy can take different forms. Teachers in England reported a decrease in autonomy in a large-scale quantitative study of teacher autonomy and its importance for retention in England. The study found that, although teachers described relatively high autonomy over classroom activities, including the teaching methods they use and how they plan and prepare lessons, they experienced lower autonomy over curriculum, assessment, and their professional development goals. The study also found that teacher autonomy was associated with higher job satisfaction and intention to stay in teaching.[106] This comes as no surprise, as even a cursory understanding of teaching allows one to grasp how a lack of autonomy might actively disempower teachers and ultimately lead to a reduction in the quality of education and the overall success of learners. **The evidence above suggests a breakdown in trust between governments and teachers, and the creation of administratively burdensome policy environments to micro-manage teachers in the classroom.**

Critics of teacher and school autonomy might argue that more independence for schools politicizes hiring decisions, widens regional disparities, and fractures educational standards.[107] But teacher autonomy is not a zero-sum game. Education policies can balance the importance of assessment and regulation with the need to empower teachers, and to provide the resources and support they need to do their best work. More decentralized and flexible curricula, where both school leaders and teachers have greater autonomy to adapt the curriculum to meet the varying needs of their learners, might lead to a more personalized and effective education experience.

Education policy critics often advocate for autonomy as a means of freeing up schools and promoting reform. As Priestly *et al* (2015) observe, though, teacher autonomy (in terms of reduced regulation) does not always result in teacher agency.[108] If given autonomy, teachers may still be unable to exercise agency because they may, for instance, engage in the same behaviour patterns or they may lack relational and cognitive tools. The authors explain the increased use of output regulation through, for example, school inspections and the evaluative use of attainment data in the Scottish context (emphasis added):

> *[Output regulation] has been associated with the development of performative cultures in school and instrumental decision-making by teachers (Ball, 2003; Wilkins, 2011), as teachers distance themselves from their personal values in order to 'play the game' (Gleeson and Gunter, 2001). This game can take the form of fabrication of the school's image – careful impression management and discourses of excellence (Keddie et al., 2011) and the concealing of 'dirty laundry' (Cowie et al., 2007) – as well as more serious corruption and cheating (Sahlberg, 2010).* ***Ethical and professional practices thus lose***

[103] Council for Creative Education, Finland. (nd). Introduction to Finland Education. Retrieved from https://www.ccefinland.org/finedu#:~:text=Most%20education%20and%20training%20is,for%20their%20books%20and%20transport.

[104] Team Leverage Edu. (2022). Finland Education System. Wings. Retrieved from https://leverageedu.com/blog/finland-education-system/

[105] See https://www.nea.org/advocating-for-change/new-from-nea/want-reduce-teacher-shortage-treat-teachers-professionals

[106] Worth, J. and Van Den Brande, J. (2020). Teacher Autonomy: How does it relate to job satisfaction and retention? National Foundation for Educational Research. Retrieved from https://www.nfer.ac.uk/media/3874/teacher_autonomy_how_does_it_relate_to_job_satisfaction_and_retention.pdf

[107] OECD. (nd). School Autonomy. Retrieved from https://gpseducation.oecd.org/revieweducationpolicies/#!node=41701&filter=all

[108] Priestley, M., Biesta, G.J.J., Philippou, S. and Robinson, S. (2015). The Teacher and the Curriculum: Exploring teacher agency. In Wyse, D., Hayward, L. and Pandya, J. (eds.), *The Sage Handbook of Curriculum, Pedagogy and Assessment*. London: Sage Publications Ltd.

***out to performative pressures, as survival strategies lead to tactical and even cynical compliance** (Biesta, in press).*[109]

Conversely, when it is used thoughtfully and purposefully, policy can shape and strengthen agency, boosting educators' abilities to switch between repertoires, make choices, and plan future actions. It can do so by providing clear learning outcomes, allocating resources efficiently, and creating a professional development-rich environment for educators.

Both teacher autonomy and teacher agency are central to creating more open, empowering education systems. The complex nature of the system means that there are multiple agents involved in creating the conditions for both teacher autonomy and agency. This includes policymakers, teacher educators, institutions for teacher education, schools, and school leaders. Reducing policy complexity can afford teachers more autonomy in the classroom. Although the onus is then on teachers to use their skills to and exercise their agency, policies are the starting point for creating conditions where they are free to exercise that agency from pre-service training onwards.

Ultimately, the focus needs to be on what policy levers to adopt (and remove) overall instead of what new policies to introduce. If conceptualized properly, policy levers can reduce prescriptiveness and can use teacher agency constructively. The pressure that teachers face in meeting curriculum demands across subjects cannot be understated. Robertson offers the following suggestion regarding the South African school system:

> *If the [D]epartment [of Education] removed the hours of admin for life orientation, technology and creative arts assessments, and made them enjoyable learning periods, teachers could focus on getting the basics of maths, science and language mastered and our children could start truly cultivating essential future mindsets and skills like creative thinking and the ability to cooperate and work in culturally diverse teams; they could develop empathy and care for each other and our environment.*[110]

Approaches like this can offer policymakers a chance to infuse opportunities for discovery, enjoyment, and critical thinking into the classroom, while providing teachers with time and space to prioritize a core set of competences.

The case for infusing openness into the education policy environment

Individual policies are not inherently problematic; every policy should be judged according to its own merits and in relation to the larger policy context. The crux of the issue is the lack of consideration for the cumulative effect of policies and a tendency to believe that macro-level policy provisions translate into micro-level transformation. We have seen how well-meaning policies for standardized testing are problematic in terms of gaining accurate metrics of learner performance and for the communities affected by them (learners, teachers, and school administrators, for example). How can policy shortcomings be resolved practically?

[109] Priestley, M., Biesta, G.J.J., Philippou, S. and Robinson, S. (2015). The Teacher and the Curriculum: Exploring teacher agency. In Wyse, D., Hayward, L. and Pandya, J. (eds.), *The Sage Handbook of Curriculum, Pedagogy and Assessment*. London: Sage Publications Ltd.

[110] Robertson, H. (2021). Basic Education Department Needs a Few Lessons in 21st-Century Learning. Daily Maverick. Retrieved from https://www.dailymaverick.co.za/article/2021-08-21-basic-education-department-needs-a-few-lessons-in-21st-century-learning/ [Accessed 22 June 2023]

There are limits to what schools can do without national policy reform, so the first task is to consider the philosophy that drives policy reform. Open learning[111] provides a strong basis upon which to model the policy environment as it promotes flexibility, encourages new approaches to educational planning and implementation, and creates space for innovation and classroom interaction.

'Open learning' is a contested term. For these purposes, it refers to an educational approach that enhances learning opportunities and prioritizes access, flexibility, and inclusivity. A key element of open learning is the adoption of principles that facilitate learner autonomy and personalization in where, how, and when learning takes place. This approach is often mediated by technology, where online platforms and tools can be used for teaching, learning, and developing, sharing, adapting, or using Open Educational Resources (OER).[112]

Butcher (2000b) explains that 'open learning' refers to a set of educational principles. These are summarized below:

- **Learner-centredness:** A notion that the learner should be the focus of the educational process and should be considered an active participant in an interactive process.
- **Lifelong learning:** Emphasizes that learning extends beyond traditional schooling and occurs continuously throughout life, influenced by both formal educational systems and everyday experiences.
- **Removal of unnecessary barriers to access:** Seeks to remove educational barriers, such as geographical isolation, discrimination, work commitments, qualification prerequisites, financial constraints, or restrictive educational approaches – to ensure unrestricted access to educational opportunities, catering to a diverse range of societal needs and personal circumstances.
- **Flexibility of learning:** Enables learners to determine *what*, *how*, and *when* they learn, accommodating individual preferences and schedules. This approach allows for personalized educational pathways and methods, yet it may sometimes conflict with structured educational needs and the principle of learner-centeredness, which tailors learning to individual contexts and requirements.
- **Recognition of prior learning experiences and current competencies:** This principle promotes an integrated approach to education, acknowledging diverse forms of learning. It highlights the importance of recognizing prior learning and current competencies, allowing learners to receive credit for previous informal or formal experiences, thereby facilitating alternative pathways to qualifications.
- **Learner support:** Rather than a set of fixed strategies, effective support is measured by the relevance and successful application of various teaching methods and resources in aiding learner progress and achievement within their educational journey. This includes pre-enrolment counselling, ongoing guidance, resource accessibility, and interactive opportunities, ensuring learners fully understand and navigate their educational choices.
- **Expectations of success:** Open learning provides learners a genuine opportunity for success, ensuring that programmes lead to qualifications that are recognized in the world of work and that the education offered maintains the highest quality standards.
- **Cost-effectiveness:** Optimizing the balance between cost, learner numbers, and educational quality. This differs from merely seeking cost-efficiency or low per-student costs. Instead, this principle requires continual assessment relative to changing contexts, using open learning principles as benchmarks for evaluating the appropriateness of educational strategies.
- **Working with legacy systems:** This includes recognizing and improving existing educational structures rather than solely introducing new ones, ensuring that efforts to enhance accessibility and reform are

[111] Open learning should not be conflated with open and distance education, the latter referring to a commitment to remove unnecessary barriers to accessing learning while simultaneously aiming to provide high quality educational experiences that will enable success both during and after studies. In doing so, open education seeks to reconfigure how knowledge is produced, shared, and built upon. Open education practices include the use of OER, prior learning accreditation and recognition, and open data. And while practices like OER development and use have been documented around the world, it is crucial not to take this to mean that open education practices have resulted in openness within education systems.

[112] Saide. (nd). A Brief Introduction to Open Learning Principles. Retrieved from https://www.saide.org.za/article.php?id=5

grounded in the practical context of current systems, and that any changes or introductions are evaluated with consideration for their impact on these established systems.[113]

However, these principles are not absolute, nor are they comprehensive. As Butcher (2000) notes (emphasis added):

> ***These principles do not amount to a coherent doctrine or philosophy; indeed, often they exist in tension with one another. This tension is important, because it can help educational planners to understand where closure in their educational systems is required and where it is unhelpful****. Thus, the principles of open learning provide a set of benchmarks against which all aspects of any educational system (international, national, provincial, or institutional) can be measured. This process can lead to improvements in the underlying design of such systems, because it can remove unnecessary closure and consolidate closure where it is important to the efficient and financially viable functioning of the system.* [114]

Thus, the concept of 'openness' is used in an expansive way in this paper.

Most education systems around the world are, however, not open in any meaningful sense, instead being characterized by the kinds of rigidity and imposed control described earlier in this paper. While complexity theory has demonstrated that these issues are multifaceted, policy complexity is a key driver. **Most policies create new rules to be implemented and enforced, which accumulate over time and create inefficiencies and unnecessary constraints that do not support (and sometimes actively obstruct) learner agency and success. These policy environments therefore do little to facilitate openness.**

In many countries, the proliferation of documents, terms, and concepts at the policy level has obfuscated simple educational concepts, leaving teachers, administrators, and learners disillusioned and disempowered. Butcher (2000) adds,

> *This has also compounded many educational problems by adding growing layers of complexity to policy implementation, which becomes particularly problematic as large-scale policy implementation needs to be made as simple as possible if it is to maximise its potential for positive impact.*[115]

Returning to the case of South Africa, the country's educational policy processes have given rise to some highly innovative ideas, many of which draw on comprehensive research and discussion. Unfortunately, however, these ideas have created a policy environment that impedes the effective delivery of high-quality education at scale because it is far too complex for an education system the size of South Africa's.[116] This is not only true for South Africa, but for any country where the proliferation of policy instruments outpaces meaningful implementation and absorption.

Finland provides an example of a country that has harnessed openness in meaningful ways, with no standardized testing and a focus on human interactions and exchanges instead of policy-driven mandates that are far removed from the contexts they are supposed to serve. Colagrossi (2018) explains that all teachers must have master's degrees before they are qualified to teach. Teaching programmes are rigorous and selective and if a teacher is not performing as expected, the responsibility falls on the principal to act. In

[113] Butcher, N. (2000b). 'The Concept of "Open Learning"' in *Opening Learning in South African General and Further Education and Training*. Saide.
[114] Butcher, N. (2000b). 'The Concept of "Open Learning"' in *Opening Learning in South African General and Further Education and Training*. Saide.
[115] Butcher, N. (2000b). 'The Concept of "Open Learning"' in *Opening Learning in South African General and Further Education and Training*. Saide.
[116] Butcher, N. (2000a). 'Open Learning and the Systems of GET and FET' in *Open Learning in South African General and Further Education and Training*. Saide.

sum, Finland does not see the learner-teacher dynamic as something that can be distilled into bureaucratic processes and standardized testing implementation.[117]

So how do we work towards more open education systems? Robinson and Aronica (2016) use the following chart to demonstrate the path to inspiring change in education systems.

Figure 5 *How to effect change in the education system*[118]

The authors provide a succinct summary of the chart:

> *People need a vision of the future they are being asked to move forward. They need to feel that they are capable of change and have the skills that are needed for it. They need to believe that there are good reasons for changing and that the place they aim to be will be better than where they are now, and that it will be worth the effort of making the transition. They need to have the personal and material resources to make the transition. And they need a convincing plan of action to get them there; or at the very least, one that will get them on their way, even if it changes as they go.*[119]

To integrate open learning principles into policy discourse would be a step forward in reducing unnecessary complexity and closure within education systems. The model above provides a useful map for how to work toward that, starting with a well-defined vision of what a more open education system looks like. For example, this vision might be that of a more flexible system that empowers learners to harness their full potential and empowers teachers. It might promote new approaches to educational planning and implementation, and it could encourage classroom dialogue and exploration. From this, stakeholders could focus on harnessing the necessary skills to work towards that vision. People need to see the benefits of openness – not that there is a 'perfect' system to model, but that there can be a system that reflects the capabilities, creativity, and collective knowledge of those that it serves. Stakeholders can then use policy levers such as funding, legislation, and public-private partnerships to spur the transition towards this vision and to develop an action plan in pursuit of it.

Conclusion and recommendations

Education systems have failed to develop the full spectrum of human capabilities. They have traditionally been characterized by closed knowledge systems, overly prescriptive curricula, narrow conceptions of success and achievement, and a failure to fully empower teachers as the facilitators of learning. **While the OER movement and the push to institutionalize other open learning practices have made valuable inroads into working against these challenges and opening education, systemic change will only really see traction when it is expressed at the policy level.**

There is a need for a new perspective on education policy environments. One manifestation of policy complexity within education systems is the growing granularization and rigidity of the curriculum, which has led to the proclivity to use standardized testing as a proxy for learner success. This complexity has also led to a lack of autonomy for teachers, making them feel constrained and increasing instances of 'teaching to the curriculum.' Standardized testing (which is sometimes high-stakes) has also led to increased tension

[117] Colagrossi, M. (2018). 10 Reasons why Finland's Education System is the Best in the World. World Economic Forum. Retrieved from https://www.weforum.org/agenda/2018/09/10-reasons-why-finlands-education-system-is-the-best-in-the-world
[118] Robinson, K. and Aronica, L. (2016). Creative Schools: The grassroots revolution that's transforming education. Penguin Books.
[119] Robinson, K. and Aronica, L. (2016). Creative Schools: The grassroots revolution that's transforming education. Penguin Books.

amongst learners, parents, and teachers, who reinforce a false equivalence between test performance and success in later life.

Often, policies create new rules that accumulate over time and create inefficiencies and unnecessary constraints that do not support (and sometimes obstruct) learner success. **The most crucial mechanism to tackle policy creep and ensure that education systems are geared toward a broader definition of learner success is to adopt and systematically implement the concept of openness within education systems, which begins at the policy level.** Prioritizing openness offers significant opportunities for teachers and learners to reclaim what happens in the classroom and become more engaged members of society.

It is sometimes said that change does not *come from* legislatures or politicians' offices, it *comes to* them. Over the past two decades, with new demands put on education systems and with global society on the frontier of monumental technological, economic, and social shifts, it is crucial that we embrace a radical shift in how education systems function and how they serve learners. With this in mind, we offer the following recommendations to policymakers, government officials, and the broader education community. These are by no means exhaustive, but do suggest key areas of policy reform.

- **Review the existing policy environment against the principles of open learning and see where to simplify, streamline, reduce, and unclutter that environment.**
    - Most policy environments can be radically simplified. Policymakers could develop a clear, consistent vision for education system capabilities and learner success that incorporates holistic learner development and accommodates meaningful discovery across the full spectrum of human capabilities.
    - Key to this will also be to critically examine existing policies to determine where they are creating unnecessary closure and unnecessary clutter. This process can then identify which policies are necessary and which might be phased out.

- **Where possible, move policies away from rule-making and towards solving problems in the education system in a systematic manner**.
    - Develop a deep understanding of the contexts and problems that interventions aim to serve, and determine whether the problems need a policy to address them effectively. If they do, start with a small policy that can be feasibly implemented, tested, and can be iterated after feedback is provided. Then scale the policy over time.
    - Gain buy-in from the stakeholders the interventions intend to serve. If stakeholders are not invested in the success of the intervention and do not understand the vision they are working towards, efforts will inevitably stall.

- **Empower and delegate authority to teachers.**
    - Amend pre-service and in-service teacher training curricula to promote reflective practice. Expose teachers to multiple teaching philosophies and methodologies during their training, providing them tools to develop their own teaching style and approach.
    - Policies should not seek to micro-manage teachers and their interactions in the classroom. They should be teacher-centred, empowering, and treat teachers like the professionals and experts that they are.

- **Empower school principals to become leaders.**
    - With necessary policy support, principals hold the power to break the rigid, rules-based hierarchies of the system. Policies can enable principals to refocus their leadership to model compassion, empathy, and flexibility in how the school is managed and operated. This includes strengthening communication between school leaders and teachers and developing feedback loops that enable school leaders to make informed decisions about how the school functions.

- **Remove curriculum rigidity and broaden the curriculum.**
    - Removing unnecessary curricular content and associated administration efforts is an important step in reducing curriculum rigidity. As an alternative, policymakers can create space for discovery, enjoyment, and critical thinking by shifting from a content-focussed curriculum to a competence-focussed one.
    - Schools may also want to reconsider how the timetable is structured and how learners' time is organized to create more space for engagement. Teachers could deliver differentiated instruction by providing different learning materials or assignments to learners based on their level of proficiency or could consider team teaching approaches to expose both teachers and learners to new ideas.
    - Schools could also introduce more time for self-study to enable greater timetabling flexibility.

- **Reduce the emphasis on high stakes standardized testing.**
    - This goes together with removing curriculum rigidity. Remove high-stakes testing and use low-stakes standardized testing strategically i) as a policy tool to identify where the system is failing learners and ii) to measure learner achievement within a predefined set of academic areas which are matched against core competences learners are expected to develop at each level of education. Promoting the development of core competences (while fostering creativity and exploration as a key part of the educational experience) will allow learners to engage with their peers and teachers without the constraints of unnecessary assessments or the time pressures of administering them.
    - Establish systems for personalized learning that, in addition to developing these core competences, nurtures learners' aptitudes and interests and encourages them to explore and enhance the full range of developmental areas. Teachers can respond to the unique needs of their learners by using OER, OpenCourseWare (OCW), and other technologies to create custom lesson plans, assessments, and activities. OER and OCW can enable pedagogical innovation, avoid unnecessary duplication, and reduce the costs of producing and distributing course material, even in resource constrained environments.[120] Personalized learning might also entail leveraging other people, including parents, community members, and experts, to provide their own insights and guide learning.

[120] World Bank. (2021). Unleashing the Power of Educational Technology. Retrieved from https://thedocs.worldbank.org/en/doc/61714f214ed04bcd6e9623ad0e215897-0400012021/related/EdTech-Report-FIN2-web.pdf

References

Abrams, L.M. (2004). Teachers' Views on High-stakes Testing: Implications for the classroom, Policy brief. Retrieved from https://files.eric.ed.gov/fulltext/ED483722.pdf

Abuya, B.A. (2022). THE 2021 KCSE Results, Form One Admission Crisis and Status of Secondary Education in Kenya. African Population and Health Research Centre Retrieved from https://aphrc.org/blogarticle/the-2021-kcse-results-form-one-admission-crisis-and-status-of-secondary-education-in-kenya/

Andrews, M., Pritchett, L. and Woolcock, M. (2017). Building State Capability: Evidence, Analysis, Action. Oxford University Press.

Baidoo-Anu, D. and Baidoo, I.E. (2022) Performance-Based Accountability: Exploring Ghanaian teachers' perception of the influence of large-scale testing on teaching and learning, Education Inquiry, DOI: 10.1080/20004508.2022.2110673

Barrett, B.D. (2009). No Child Left Behind and the Assault on Teachers' Professional Practices and Identities. *Teaching and Teacher Education*, Vol. 25. Retrieved from https://tinyurl.com/5ec29xzc

Bergbauer, A.B., Hanushek, E. and Woessmann, L. (2018). Testing with Accountability Improves Student Achievement. Retrieved from http://hanushek.stanford.edu/sites/default/files/publications/Bergbauer+Hanushek+Woessmann%202018%20VOX%209-19-2018.pdf

Butcher, N. (2000a). 'Open Learning and the Systems of GET and FET' in *Open Learning in South African General and Further Education and Training*. Saide.

Butcher, N. (2000b). 'The Concept of "Open Learning"' in *Opening Learning in South African General and Further Education and Training*. Saide.

Canadian School Boards Association. (nd). Public Education in Canada. Retrieved from https://www.cdnsba.org/public-education-in-canada/

Clark and Glazzard (2019) in National Education Union. (nd). *Too Much Testing: The alternative*. Retrieved from https://neu.org.uk/media/8076/view

Cohen, L., Manion, L. and Morrison, K. (2007). Research Methods in Education. Routledge. Retrieved from https://gtu.ge/Agro-Lib/RESEARCH%20METHOD%20COHEN%20ok.pdf

Colagrossi, M. (2018). 10 Reasons why Finland's Education System is the Best in the World. World Economic Forum. Retrieved from https://www.weforum.org/agenda/2018/09/10-reasons-why-finlands-education-system-is-the-best-in-the-world

Council for Creative Education, Finland. (nd). Introduction to Finland Education. Retrieved from https://www.ccefinland.org/finedu#:~:text=Most%20education%20and%20training%20is,for%20their%20books%20and%20transport

Cuseo, J. (nd). Student Success: Definition, Outcomes, Principles and Practices. The Big Picture. Retrieved from https://www2.indstate.edu/studentsuccess/pdf/defining%20student%20success.pdf

Datnow, A., Park, V., Peurach, D.J. and Spillane, J.P. (2022). Transforming Education for Holistic Student Development: Learning from education system (re)building around the world. Brookings. Retrieved from https://www.brookings.edu/wp-content/uploads/2022/09/Brookings_Report_Tranforming-ed-for-holistic_FINAL.pdf

du Plessis, A. (2021). Complexity Theory as Paradigm when Researching Education Reform: The South African Case. New Challenges to Education: Lessons from Around the World. *BCES Conference Books*, Vol. 19. Retrieved from https://files.eric.ed.gov/fulltext/ED613952.pdf

Ekoh, I. (2012). High-Stakes Standardized Testing in Nigeria and the Erosion a Critical African Worldview. Master's Thesis, Graduate Department of Humanities, Social Sciences and Social Justice Education University of Toronto. Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/33647/1/Ekoh_Ijeoma_201211_MA_thesis.pdf

Elia-Shalev, A. (2022). Inequality Between Israel's Mizrahi, Ashkenazi Jews to be Measured in New Statistics. Retrieved from https://www.timesofisrael.com/inequality-between-mizrahi-ashkenazi-jews-to-be-measured-with-new-statistics/

Feniger, Y., Israeli, M. and Yehuda, S. in Allan, J. and Artiles, A.J. (eds) *World Yearbook of Education 2017: Assessment Inequalities*. (2017). Retrieved from https://books.google.ca/books?hl=en&lr=&id=pjgIDwAAQBAJ&oi=fnd&pg=PP1&dq=World+Yearbook+of+Education+2017&ots=AYIy_QjEtz&sig=2-bTeKcUMwUUGoDf5EPKS4A-1_c#v=onepage&q=World%20Yearbook%20of%20Education%202017&f=false

Finnish Government. (2021). Education Policy Report of the Finnish Government. Retrieved from https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163273/VN_2021_64.pdf?sequence=1&isAllowed=y

Harus, E.B. and Davidovitch, N. (2021). On Management Processes in Education Towards International Exams – The case of the Meitzav. *International Journal of Pedagogy Innovation and New Technologies*, 8(1). Retrieved from https://ijpint.com/api/files/view/1662004.pdf

Heissel, J.A., Adam, E.K., Doleac, J.L., Figlio, D.N. and Meer, J. (2018). Testing, Stress, and Performance: How Students Respond Physiologically to High-Stakes Testing. National Bureau of Economic Research. Retrieved from https://www.nber.org/papers/w25305

Inter-Agency Task Force on Israeli Arab Issues. (2019). Gaps Between Jewish and Arab High School Students in Matriculation Exam Achievements. Retrieved from https://www.iataskforce.org/activities/view/905

Intercultural Development Research Association. (2002). The Dangerous Consequences of High-Stakes Testing, FairTest, the National Center for Fair and Open Testing. Retrieved from https://www.idra.org/resource-center/the-dangerous-consequences-of-high-stakes-testing/#:~:text=It%20drives%20students%20and%20teachers,or%20support%20high%2Dquality%20learning.

Jones, M.G. and Ennes, M. (2018). High-stakes Testing. Oxford Bibliographies. Retrieved from https://www.oxfordbibliographies.com/display/document/obo-9780199756810/obo-9780199756810-0200.xml

Kadaria-Ovadia, S. (2019). Arab and Ultra-Orthodox Students in Israel Lagging in English Skills, Report Shows. Haaretz. Retrieved from https://www.haaretz.com/israel-news/2019-01-10/ty-article/.premium/arab-and-ultra-orthodox-students-falling-behind-on-english-skills-report-shows/0000017f-e8cf-df5f-a17f-fbdf579c0000

Larsen-Freeman, D. & Cameron, L. (2008): Research methodology on language development from a complex systems perspective. *The Modern Language Journal*, 92(2), 200-213.

Lau, M. (2022). Student Testing: An international context. Fraser Research Bulletin. Retrieved from https://www.fraserinstitute.org/sites/default/files/student-testing-an-international-context.pdf

Levin, B. (2007). Curriculum Policy and the Politics of What Should be Learned in Schools in (Connelly, M., He, M. and Fillion, J. (eds) *Handbook of Curriculum and Instruction.* Sage. Retrieved from https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=e2279167d3c33a3a944e625e6c46199565b47361

Macqueen, S., Knoch, U. and Brickle, R. (2018). The Impact of National Standardized Literacy and Numeracy Testing on Children and Teaching Staff in Remote Australian Indigenous Communities. *Sage Journals*, 36(2). Retrieved from https://journals.sagepub.com/doi/10.1177/0265532218775758

Marshal, D. (2018). A More Flexible Curriculum Approach Can Support Student Success. The Conversation. Retrieved from https://theconversation.com/a-more-flexible-curriculum-approach-can-support-student-success-92751 [Accessed 15 June 2023]

National Education Union. (nd). Too Much Testing: The alternative. Retrieved from https://neu.org.uk/media/8076/view

New South Wales Education Department. (nd). Consolidated Policies. Retrieved from https://education.nsw.gov.au/policy-library/policy-article-3 [Accessed 31 March 2023]

Organisation for Economic Cooperation and Development (OECD). (2018a). Education and Skills 2030: Curriculum analysis. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/Literature_review_on_flexibility_and_autonomy.pdf
OECD. (2018b). Education Policy in Japan: Building bridges towards 2030. Retrieved from https://www.oecd.org/education/Japan-BB2030-Highlights.pdf
OECD. (2019). Education Policy Outlook 2019 : Working Together to Help Students Achieve their Potential – Japan. Retrieved from https://www.oecd-ilibrary.org/sites/5564ff4a-en/index.html?itemId=/content/component/5564ff4a-en
OECD. (2020a). Curriculum (Re)design: A series of thematic reports from the OECD Education 2030 project. OECD. Retrieved from https://www.oecd.org/education/2030-project/contact/brochure-thematic-reports-on-curriculum-redesign.pdf
OECD. (2020b). Curriculum Overload: A way forward. Retrieved from https://www.oecd-ilibrary.org/education/curriculum-overload_3081ceca-en
OECD. (nd). School Autonomy. OECD. Retrieved from https://gpseducation.oecd.org/revieweducationpolicies/#!node=41701&filter=all
Perry, A. M. (2021). Standardized Tests Aren't the Problem, it's How We Use Them. Brookings Institution. Retrieved from https://www.brookings.edu/blog/brown-center-chalkboard/2021/03/30/standardized-tests-arent-the-problem-its-how-we-use-them/
Priestley, M., Biesta, G.J.J., Philippou, S. and Robinson, S. (2015). The Teacher and the Curriculum: Exploring teacher agency. In Wyse, D., Hayward, L. and Pandya, J. (eds.), *The Sage Handbook of Curriculum, Pedagogy and Assessment*. London: Sage Publications Ltd.
Republic of Botswana. (nd). Ministry of Basic Education. Retrieved from https://www.gov.bw/ministries/ministry-basic-education
Robertson, H. (2021). Basic Education Department Needs a Few Lessons in 21st-Century Learning. Daily Maverick. Retrieved from https://www.dailymaverick.co.za/article/2021-08-21-basic-education-department-needs-a-few-lessons-in-21st-century-learning/ [Accessed 22 June 2023]
Robinson, K. and Aronica, L. (2016). Creative Schools: The grassroots revolution that's transforming education. Penguin Books.
Saide. (nd). A Brief Introduction to Open Learning Principles. Retrieved from https://www.saide.org.za/article.php?id=5
Shanker, S. (2014). Broader Measures of Success: Social/ Emotional Learning. People for Education. Retrieved from https://peopleforeducation.ca/wp-content/uploads/2017/06/MWM-Social-Emotional-Learning.pdf
Snyder, S. (2013). The Simple, the Complicated, and the Complex: Educational reform through the lens of complexity theory. OECD Education Working Papers No. 96. Retrieved from https://www.oecd-ilibrary.org/docserver/5k3txnpt1lnr-en.pdf?expires=1687205086&id=id&accname=guest&checksum=163F6B8E02DA0DBC2AB14F52B0014161
Spencer, K. (2015). Some Parents Oppose Standardized Testing on Principle, but Not in Practice. New York Times. Retrieved from www.nytimes.com/2015/04/14/nyregion/despite-opposing-standardized-testing-many-new-york-parents-and-students-opt-in.html
State University. (nd). Japan: Administration, Finance, & Educational Research. Retrieved from https://education.stateuniversity.com/pages/742/Japan-ADMINISTRATION-FINANCE-EDUCATIONAL-RESEARCH.html
Team Leverage Edu. (2022). Finland Education System. Wings. Retrieved from https://leverageedu.com/blog/finland-education-system/
The White House, President Barack Obama. (nd). Race to the Top. Retrieved from https://obamawhitehouse.archives.gov/issues/education/k-12/race-to-the-top
Tur-Paz, S.R. and Malach, G. (2023). On the Haredi Educational System. Retrieved from https://en.idi.org.il/articles/49956

Turchin, P. (2023). End Times: Elites, Counter-Elites, and the Path of Political Disintegration. Penguin Publishing Group.
U.S. Department of Education. (2021). The Federal Role in Education. Retrieved from https://www2.ed.gov/about/overview/fed/role.html
UNESCO International Bureau of Education. (2013). The Curriculum Debate: Why it is important today. UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000221328_eng
UNESCO International Bureau of Education. (2016). What Makes a Quality Curriculum? UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000243975
UNESCO, UNICEF and the World Bank. (2021). The State of the Global Education Crisis: A path to recovery. Retrieved from https://www.unicef.org/media/111621/file/TheStateoftheGlobalEducationCrisis.pdf.pdf
UNESCO. (nd). Education Policies and Strategies: Towards future-ready education systems. Retrieved from https://www.unesco.org/en/education-policies
Walker, T. (2016). Teacher Autonomy Declined Over Past Decade, New Data Shows. NEAToday. Retrieved from https://www.nea.org/advocating-for-change/new-from-nea/teacher-autonomy-declined-over-past-decade-new-data-shows
Ward, D.M. (2012). The Effects of Standardised Assessment (NAPLAN) on Teacher Pedagogy at Two Queensland Schools. Retrieved from https://eprints.qut.edu.au/63662/1/Donna_Ward_Thesis.pdf
Winter, C. (2017). Curriculum Policy Reform in an Era of Technical Accountability: 'Fixing' curriculum, teachers and students in English schools. *Journal of Curriculum Studies*, 49(1):55-74. Retrieved from https://www.tandfonline.com/action/showCopyRight?scroll=top&role=tab&doi=10.1080%2F00220272.2016.1205138
World Bank. (2019). The Education Crisis: Being in school is not the same as learning. Retrieved from https://www.worldbank.org/en/news/immersive-story/2019/01/22/pass-or-fail-how-can-the-world-do-its-homework
World Bank. (2021). Unleashing the Power of Educational Technology. Retrieved from https://thedocs.worldbank.org/en/doc/61714f214ed04bcd6e9623ad0e215897-0400012021/related/EdTech-Report-FIN2-web.pdf
World Economic Forum. (2022). More Children than Ever are Going to School. But are they really learning? Retrieved from https://www.weforum.org/agenda/2022/11/education-learning-africa/
Worth, J. and Van Den Brande, J. (2020). Teacher Autonomy: How does it relate to job satisfaction and retention? National Foundation for Educational Research. Retrieved from https://www.nfer.ac.uk/media/3874/teacher_autonomy_how_does_it_relate_to_job_satisfaction_and_retention.pdf
Wright, K. B., Shields, S. M., Black, K., Banerjee, M., and Waxman, H. C. (2018). Teacher Perceptions of Influence, Autonomy, and Satisfaction in the Early Race to the Top Era. *Education Policy Analysis Archives*, *26*(62). Retrieved from https://epaa.asu.edu/index.php/epaa/article/view/3449

nba
excellence in education