

DEVELOPING THE AFRICAN CONTINENTAL
QUALIFICATIONS FRAMEWORK (ACQF)

SCHOOL CURRICULUM MAPPING REPORT

Mapping curriculum frameworks and
practices in Africa: creating baseline evidence

This report concludes the mapping study of curriculum frameworks and practices in Africa, elaborated in 2021 in the context of the project AU-EU Skills for Youth Employability/Skills Initiative for Africa, Technical Cooperation – Developing the African Continental Qualifications Framework (ACQF).

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LIST OF MAIN ACRONYMS

4IR	Fourth Industrial Revolution
AAU	Association of African Universities www.aau.org
ACA	African Curriculum Association https://acuass.org/
ACCF	African Continental Curriculum Framework
ACER	Australian Council for Educational Research
ACQF	African Continental Qualifications Framework
ADEA	Association for the Development of Education in Africa www.adeanet.org
AEAA	African Education Accreditation Agency
Afcfta	African Continental Free Trade Area
AG	Advisory Group (of the ACQF)
AFTRA	African Federation of Teacher Regulatory Authorities
AI	Artificial Intelligence
AQRM	African Quality Rating Mechanism
AQVN	African Qualifications Verification Network
ASF-QA	African Standards and Guidelines for Quality Assurance
ASPYYE	Africa's Platform for Youth Employment and Entrepreneurship
AU	African Union au.int
AUC	African Union Commission au.int/en/commission
C2005	Curriculum 2005 (South Africa)
CAMES	Conseil Africain et Malgache pour L'enseignement Supérieur www.lecomes.org
CAPS	Curriculum and Assessment Policy Statements
CBA	Competency Based Assessment/Approach
CBET	Competence Based Education and Training
Cedefop	European Centre for the Development of Vocational Training www.cedefop.europa.eu
CESA	Continental Education Strategy for Africa
CF	Curriculum Framework
Comesa	Common Market for Eastern and Southern Africa
Covid-19	Coronavirus disease of 2019
CPD	Continuing Professional Development



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EAC	East African Community
Eaqfhe	East African Qualifications Framework for Higher Education
ECCAS	Economic Community of Central African States au.int/en/recs/eccas
ECCDE	Early Childhood Care Development and Education
Ecowas	Economic Community of West African States www.ecowas.int
GE	General education
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HAQAA	Harmonisation of African Higher Education Quality Assurance and Accreditation
HE	Higher education
HEI	higher education institution
ICT	Information Communication Technology
IGAD	Intergovernmental Authority on Development igad.int
IICBA	International Institute for Capacity Building in Africa
ILO	International Labour Organization www.ilo.org
ISCED	International Standard Classification of Education
ICSED-T	ISCED for teacher qualifications and training programmes
ISCO	International Standard Classification of Occupations
IUCEA	Inter-University Council for East Africa iucea.org
JET	JET Education Services
LLL	Lifelong learning
M&E	Monitoring and evaluation
MOOC	Massive open online course
MRAs	Mutual recognition agreements
NQF	National Qualifications Framework
NQS	National Qualifications System
NTQF	National TVET Qualifications Framework
NVQF	National Vocational Qualifications Framework
OBE	Outcomes Based Education
OECD	Organisation for Economic Cooperation and Development www.oecd.org
PAQAF	Pan-African Quality Assurance and Accreditation Framework

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PAU	Pan African University
PASEC	Programme for the Analysis of Education Systems
QA	Quality Assurance
REC	Regional Economic Community
RNC	Revised National Curriculum
RPL	Recognition of Prior Learning
RQF	Regional Qualifications Framework
SAAEA	Southern African Association for Educational Assessment
SACMEQ	Southern African Consortium for Measuring Educational Quality www.sacmeq.org
SADC	Southern African Development Community www.sadc.int
Sadcqf	SADC Qualifications Framework
Sadcqvn	SADC Qualification Verification Network
SARUA	Southern African Regional Universities Association www.sarua.org
SAQAN	Southern African Quality Assurance Network www.saqan.org
SDG	Sustainable Development Goal
SIFA	Skills Initiative for Africa
SSA	Sub-Saharan Africa
STC-EST 3	Specialised Technical Committee on Education, Science and Technology
TCDF	TVET Curriculum Development Framework
TIMSS	Trends in International Mathematics and Science Study
TQF	Transnational Qualifications Framework
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute of Statistics
UNESCO	United Nations Education, Scientific and Cultural Organisation www.unesco.org
WA	Western Australia
WAEC	West African Examinations Council
WAEMU	West African Economic and Monetary Union www.uemoa.int
WPBL	Workplace Based Learning



EXECUTIVE SUMMARY

Introduction to the mapping study

1. This report presents the findings of a curriculum mapping survey administered on behalf of the African Union Commission (AUC) and the African Curriculum Association (ACA), the coordinator of the Continental Education Strategy for African (CESA) curriculum cluster. The project “Developing the African Continental Qualifications Framework” is a key partner of this initiative, having closely collaborated from the first ideas with ACA to conceive the approach and plan, organise and support implementation of the study.
2. The survey covered school education and technical and vocational education and training (TVET). Some aspects of early childhood care development and education (ECCDE) were also taken into account.
3. The survey was designed around four key research questions: (1) Which frameworks inform and/or underpin school curriculum in school education in African countries? (2) To what extent do school curricula in African countries include and develop new knowledge and skills related to mega-trends?; (3) How do African school curricula align with qualifications frameworks?; and (4) To what extent do countries ensure that the foundation disciplines (language and literacy, thinking skills, and numeracy) are mastered?
4. A response rate of 29% was achieved through responses from 16 countries out of a possible 55, including 26 responses overall (15 in English, 9 in French and 2 in Portuguese). The majority of respondents (n=15) completed the survey as representatives of the government sector.

Conceptual framework

5. This mapping study has been commissioned as part of the broader ACQF process, and as such, the study assumes that there is an important interrelationship between three key concepts, namely curricula, qualifications and learning programmes.
 - a. *Curriculum*: the inventory of activities implemented to design, organise and plan an education or training action.
 - b. *Qualification*: the planned combination of learning outcomes with a defined purpose or purposes, including defined, applied and demonstrated competence and a basis for further learning.
 - c. *Learning programme*: a written document planning learning experiences in a specific learning setting. It is developed on the basis of the curriculum and takes into account the learners’ needs
6. Learning outcomes (statements of what a learner knows, understands and is able to do on completion of a learning process) constitute the common base taxonomy on which the concepts of curriculum, qualification, and learning programme are understood, developed and interrelated.
7. Two issues emerge as top priorities as a result of the Covid-19 pandemic: (1) Reading is the gateway to all other learning, informed citizenship and success in the job market; (2) The importance of digital education, which in the last two years has grown exponentially in schools serving the middle classes but has gained little traction in schools serving the poor.



Mapping study findings

1. *Curriculum policy and governance*: across all three sectors, the predominant legal basis of the curriculum was a national policy; the vast majority of curricula, was approved in the last decade; the majority of respondents reported that experts are consistently involved in national curriculum development processes.
2. *Curriculum and qualifications frameworks*: 67% of respondents reported that there is regular and close cooperation between curriculum authorities and national qualifications or quality assurance agencies; 17% of respondents indicated that there was awareness, but no substantial relationship, between curriculum authorities and other agencies.
3. *Curriculum approaches*: the main approach used by countries for curriculum formulation is a competency-based approach; 75% reported that vertical progression is conceptualised by using taxonomies; the majority of respondents indicated that TVET programmes are structured as pre-vocational programmes with no apprenticeship.
4. *Curriculum monitoring and evaluation*: quality assurance of curriculum delivery did not appear to be the exclusive domain of any one particular entity, with responses fairly evenly distributed across the organisations, departments and entities listed.
5. *Curriculum and assessment*: quarterly assessments were the most commonly reported national systemic assessments across all three education sub-sectors, followed by annual assessments; 37% reported participating in PASEC, 37% in SACMEQ; 56% of countries reported attempted improvements against regional and international standards in the TVET sector.
6. *Curriculum reform*: Six countries reported that they are moving towards the adoption of a competency-based approach to the curriculum, while one country reported a shift from an objectives-based curriculum to a standards-based curriculum. Three countries reported promoting 21st century skills as well as digital literacy in their curriculums.
7. *Curriculum innovation*: the top three themes were norms, values and culture (94%); education for wider universal values supporting mobility (87.5%); and harmonisation (62.5%); the top 21st century skills were creativity (94%), critical thinking (87.5%), and active learning (87.5%), and digital skills (81%).
8. *Financing curriculum innovation*: curriculum innovation in the schooling sector is almost exclusively supported by public funds, except in one country where the financing of school level curriculum innovation is left to the private sector.
9. *Impact of Covid-19 on curriculum delivery*: the greatest impact was a reduction in curriculum coverage, reported by 68.7% of countries; for 50% of countries, the curriculum was re-focussed to cover core subjects, including basic numeracy and literacy; 50% of countries reported that Covid-19 has resulted in a review of the curriculum; 87.5% reported that the predominant method for curriculum recovery was using online systems; 75% of countries reported using extra teaching time to catch-up; 68.7% of countries reported a reduction of holiday periods to ensure catch up of the curriculum.
10. *Qualified and competent teachers*: the overwhelming majority of respondents were not familiar with ISCED; the majority of respondents for all sectors indicated a 2-year qualification duration; the average duration of teacher practice during teacher training programmes is between 3-6, or 12-16 weeks; 14 schooling sector respondents said that teacher professionalisation is guided by professional standards to a comprehensive extent, while another six said that there was partial existence of professional standards guiding professionalisation.
11. *Curriculum and African Union policy instruments*: the highest number of respondents were not aware of any of the three AU policies or instruments, while the fewest number of respondents indicated that the policies were comprehensively taken into account in related national policy.





Looking to the future

12. The following trends have been observed through the mapping study:
 - a. An increase in learning outcomes-based approaches across African countries
 - b. Gender equity, global citizenship and digitalisation are megatrends
 - c. Emergence of teacher professional standards
 - d. The promise of a continental systemic assessment regime
 - e. Harmonisation of teacher qualifications
 - f. Access to digital platforms

13. The following challenges related to curriculum design and delivery have been observed through the mapping study:
 - a. Unequal access to technology and the internet
 - b. Underutilised African Union policy instruments
 - c. Underdeveloped TVET
 - d. Lack of data

14. This curriculum mapping survey conducted in 2021 has provided a first-of-its-kind overview of the state of play of curriculum developments in schooling and TVET, and to some extent also ECCDE, across the African continent.
15. This study is however only a starting point for more sophisticated studies that should follow as part of the implementation of CESA and Agenda 2063.
16. The Covid-19 pandemic has starkly illustrated both the continent's vulnerability and its resilience. While at the same time, it is estimated that by 2100, Africa will account for 80% of the projected 4 billion increase in the global population (IMF 2014). Africa is well positioned to harness its youthful population in this future.
17. Relevant and modern curricula will be the cornerstone of the continent's recovery in the coming decades, but also its future. Such generative curricula need to be as much embedded in global trends, as they are uniquely attuned to the rights of and cultural identity of African learners (Nsamenang and Tchombe, 2011).



1. INTRODUCTION AND CONTEXT TO THE MAPPING STUDY

Key points

- This report presents the findings of a curriculum mapping survey administered on behalf of the African Union Commission (AUC) and the African Curriculum Association (ACA), the coordinator of the Continental Education Strategy for African (CESA) curriculum cluster. The project “*Developing the African Continental Qualifications Framework*” is a key partner of this initiative, having closely collaborated from the first ideas with ACA to conceive the approach and plan, organise and support implementation of the study.
- The survey covered school education and technical and vocational education and training (TVET). Some aspects of early childhood care development and education (ECCDE) were also taken into account.
- The survey was designed around four key research questions: (1) Which frameworks inform and/or underpin school curriculum in school education in African countries? (2) To what extent do school curricula in African countries include and develop new knowledge and skills related to mega-trends?; (3) How do African school curricula align with qualifications frameworks?; and (4) To what extent do countries ensure that the foundation disciplines (language and literacy, thinking skills, and numeracy) are mastered?
- A response rate of 29% was achieved through responses from 16 countries out of a possible 55, including 26 responses overall (15 in English, 9 in French and 2 in Portuguese). The majority of respondents (n=15) completed the survey as representatives of the government sector.

1.1 Introduction

This curriculum mapping survey was administered by JET Education Services (JET) on behalf of the African Union Commission (AUC), and the African Curriculum Association (ACA), the coordinator of the Continental Education Strategy for African (CESA) curriculum cluster. The project “*Developing the African Continental Qualifications Framework*” is a key partner of this initiative, having closely collaborated from the first ideas with ACA to conceive the approach and plan, organise and support implementation of the study.

The main objective of this mapping study was to take stock of and update evidence on the current curriculum frameworks and practices in the African Union Member States. In particular, the mapping study seeks to achieve the following:

- map the state-of-play and developments of school curriculum (including Technical and Vocational Education and Training [TVET]);
- identify the different curriculum policies and practices in application, trends, similarities and divergences; and
- the interactions of curriculum with national qualifications frameworks (NQFs).

The survey was designed to cover school education and technical and vocational education and training (TVET). Some aspects of early childhood care development and education (ECCDE) were added during the design process and are reported on in a more condensed manner in this report. For the purpose of this survey, schooling was interpreted as primary, lower- and upper-secondary education. Respondents were not required to complete questions for a sector which they were not familiar with. The survey was administered via Google Forms to respondents identified by the ACA and CESA Curriculum Cluster in September 2021. The survey was not made available for completion outside of this identified group of respondents.





The specific objectives of the African school curriculum survey were:

1. To identify the different types of frameworks (conceptual, policy, others) underpinning curriculum development and implementation in the African Union countries.
2. To identify and map important features, trends, new developments, and challenges in curriculum development and implementation in the African Union countries.
3. To examine the alignment/interaction of school curriculum with NQF principles and descriptors.
4. To contribute with qualitative information relevant for the SDGs.
5. To generate evidence and insights contributing to inform and support policies on curriculum, development in African Union member countries.

The conclusions and findings of the mapping study will underpin and inform the design of an African Continental blueprint Curriculum Framework, as a model to inspire countries in developing their national innovative curriculum framework and to serve as a basis for the harmonisation of curriculum across AU Member States. This joint initiative is a demonstration of synergy between the Continental Education Strategy for Africa (CESA 16-25) Curriculum Cluster, ACA and the ACQF project and a confirmation of the common interest in better aligning and informing curriculum development and content. The CESA Strategic Objectives are listed below (see objectives 7, 8, 11 and 12 in particular):

1. Revitalize the teaching profession to ensure quality and relevance at all levels of education.
2. Build, rehabilitate, preserve education infrastructure, and develop policies that ensure a permanent, healthy, and conducive learning environment in all sub-sectors and for all, so as to expand access to quality education.
3. Harness the capacity of ICT to improve access, quality and management of education and training systems.
4. Ensure acquisition of requisite knowledge and skills as well as improved completion rates at all levels and groups through harmonisation processes across all levels for national and regional integration.
5. Accelerate processes leading to gender parity and equity.
6. Launch comprehensive and effective literacy programmes across the continent to eradicate the scourge of illiteracy.
7. Strengthen the science and mathematics curricula in youth training and disseminate scientific knowledge and culture in society,
8. Expand TVET opportunities at both secondary and tertiary levels and strengthen linkages between the world of work and education and training systems
9. Revitalize and expand tertiary education, research, and innovation to address continental challenges and promote global competitiveness,
10. Promote peace education and conflict prevention and resolution at all levels of education and for all age groups,
11. Improve management of the education system as well as build and enhance capacity for data collection, management, analysis, communication, and use.
12. Set up a coalition of stakeholders to facilitate and support activities resulting from the implementation of CESA 2016-2025.



1.2 Study context

The African Curriculum Association (ACA) was preceded by the African Curriculum Organisation (ACO) that existed in the 1970s to mitigate the post-independence education challenges which faced many countries on the continent (ACA 2021¹). The need for an organisation such as the ACO that could support the Africa-wide curricula needs and processes was recognised in recent years, and hence in 2018, the organisation was revived in the form of the ACA with a strong impetus for Pan-Africanism, as well as for creating a new Africa through strengthened education and training systems (ACA 2021). ACA's core mandate is to ensure quality education, through the ministries of education, regional economic communities (RECs), and development partners (ibid.).

ACA, as coordinator of the CESA Curriculum Cluster, has the following roles to play:

1. Harmonise African curriculum development to standardise and have a responsive, relevant, and innovative curricula for African countries through:
 - a. Sharing of best practices from African countries and beyond that are doing well in curriculum matters
 - b. Organise curriculum and assessment specific training programmes for member countries
 - c. Enhance the capacity of curriculum specialists, examination officers and all relevant groups
2. Minimise inconsistencies in curriculum by collectively participating and supporting each other (member countries) on curriculum reforms and designing and development of curriculum support materials.
3. Establish a network of communications among curriculum development centres.
4. Organise and/or facilitate joint training programmes, workshops, seminars, and regular meetings on curriculum and carry out evaluation of curricula
5. Promote production and exchange of curriculum and curriculum research materials.
6. Set up technical working groups for specific projects in curriculum development and research.
7. Establish a working relationship with other clusters at the African Union.

The need for a continent-wide curriculum mapping study stemmed from the third ordinary session of the African Union Specialised Technical Committee on Education, Science and Technology (STC-EST 3). During this meeting, the role that ACA plays in supporting member states to review and develop their national curricula to meet the demands of the 21st century was underscored. ACA plays an important role in coordinating the Curriculum Cluster of the African Union's Continental Education Strategy for Africa (CESA 16-25), is also a member of the African Continental Qualifications Framework (ACQF) Advisory Group (ACQF AG) and was therefore well-positioned to commission such a mapping exercise. It was further agreed during STC-EST 3 that ACA should aid countries to reform their curricula, improve professional development for teachers, develop appropriate learning resources, improve learning outcomes, and harmonise Africa schools curricula.

STC-EST 3 further recognised that there can be misalignment between key components (qualifications frameworks, learning outcomes, curriculum) of the education and training systems and qualifications systems, which results in inconsistencies and inefficiencies that affect both the quality and transparency of learning outcomes and the qualifications achieved. This is while improved transparency of school curriculum and growing interaction with the principles, objectives, and level descriptors of qualification frameworks (national/regional) could lead to improved educational attainment, better credibility of qualifications as well as contribute towards the African integration and human development agenda at the national, regional, continental levels. It was therefore decided to undertake this curriculum mapping study to take stock and update evidence on the state-of-play of curriculum frameworks and practice in the African Union member states.

1. <https://acuass.org/wp-content/uploads/2021/10/ACa-journal-4.pdf>





1.3 Methodology

1.3.1 Main objectives and research questions

Curriculum mapping involves processes for collecting relevant information that is entered into a database and can be represented in the form of a diagram, flow chart, matrix or other form(s) of description. Curriculum mapping can have descriptive and or analytic purposes. Curriculum mapping further supports understanding and analysis of relationships between elements and features of a curriculum terrain for conceptual, design, planning, implementation and evaluation purposes. The specific reference to “mapping” in this study has important connotations:

- First is to draw attention to ‘mapping’ as an analytic process involving summarising a complex reality for the purpose of seeing its dimensions, interpreting the information and navigating the terrain,
- Second is to convey the scope of this work which is to ‘map’ the continent or capture the state of curriculum as precursor to creating a continental-wide framework-plan,
- Third, literally mapping – on the basis of the country as a unit of analysis – offers the potential for regional analysis in a comparative manner.

Curriculum mapping can differ in terms of the layers according to which a curriculum can be presented, ranging from granular alignment and assessment levels to systemic qualification framework levels. Curriculum mapping can also be applied to curriculum governance and access such as in mapping centralisation-decentralisation of curriculum control, language, curriculum access, etc. Mapping techniques can further contribute to curriculum implementation such as mapping teacher capacity building and curriculum responsiveness.

The specific objectives of the school curriculum survey in African Union member states have been to:

- generate evidence and understanding on frameworks and practices in the areas of curriculum development and implementation in the countries;
- develop an analytical overview on how curriculum interacts with and/or is informed by national qualification frameworks and descriptors of levels of qualifications; and
- more broadly, contribute to the discussion and design of an African continental curriculum framework in the future through the disseminated survey’s findings, data and insights.

The following research questions guided the research:

1. Which frameworks (conceptual, policy, technical) inform and/or underpin school curriculum in school education (basic, secondary, TVET-certificate awarding) in African countries? (Definitions of curriculum; application of learning outcomes; changing teachers’ roles and training teachers; learner-centred approaches)
2. To what extent do school curricula in African countries include and develop new knowledge and skills related to mega-trends? (Digital; ecologic transformation; citizenship; employability; response to Covid-19; African cultures and values)
3. How do African school curricula align with qualifications frameworks? (Levels and cycles; principles; descriptors of the NQF; descriptors of qualifications).



Foundation disciplines (language and literacy and numeracy are the most important foundations to learn at primary school, and form the foundation for learning everything else, including things like ecological transformation, etc). For this reason, a fourth research question was added:

4. To what extent do countries ensure that the foundation disciplines (language and literacy, thinking skills, and numeracy) are mastered?

Taking account of these research question the survey specifically sought information on:

- The 'big idea' underlying the curriculum (subject-focused, outcomes based, etc.).
- The extent to which any curriculum innovation was preceded by a sector scan and accompanied by a monitoring and evaluation (M&E) component in order to guide implementation and assess impact.
- Attempts to make schooling more relevant to the changing demands of a world increasingly dominated by technology, environmental degradation, and poverty: Most prominent in this regard are curricula aimed at the introduction of 21st century skills in the context of the fourth industrial revolution (4IR). These include creativity, critical thinking, collaboration, cognitive flexibility, and emotional intelligence, as well as employability and entrepreneurial skills - as opposed to memorisation of facts. Other fundamental elements of curriculum responsive to societal and technological change include development of knowledge-skills and integration of competences related with greening and ecological transition, gender equity and digitalisation.
- The extent to which the current curriculum, or planned new curriculum, were accompanied by a systematic teacher development programme. There is a lack of professional development infrastructure across the education systems in the Sub-Saharan Africa (SSA) region. Effective and sustained professional development of teachers and implementers needs to underpin reform. Structures and knowledge systems to support reform processes need to be developed across the SSA region.
- The assessment system. Increasingly there are calls to increase the contribution of formative assessment tasks towards the summative grade at the end of an educational cycle. However, the ability to do so is not common among teachers, and here too professional development of teachers is key to the success of such initiatives.

1.3.2 Key informant interviews

Nine key informant interviews with representatives from the core team, independent experts and survey steering group were conducted during the development of the survey instrument. Respondents were identified by ACA and the ACQF Project, and included informants involved in curricula of primary, secondary and TVET institutions in African member states; curriculum policies supported and/or recommended by national and regional bodies, with focus on policies of Regional Economic Communities (RECs); the CESA Curriculum cluster; and ACQF developments in the region.

Key informants included senior members of national education departments / ministries, the African Union department of education, from the East African Community secretariat, and from Unesco. Informants all had extensive expertise in curriculum development, implementation and reform across primary, secondary, and tertiary education sectors, including TVET, and specialisations in teacher training.





1.3.3 Survey design

The survey was designed within a framework premised on the thematic pillars utilised in the ACQF Mapping Study (GIZ, ETF & AUC, 2021), which were then further customised for this curriculum study:

1. *Definitions:* curricula, programme, qualifications, etc.
2. *Legal, policy base:* curriculum frameworks and development
3. *Governance:* leading institutions and key agencies; the role of social partners and other stakeholders; resources; indicators and mechanisms to support implementation and monitoring.
4. *Overarching curriculum frameworks:* that may be explicit or implicit and may include elements of Competency-Based Education (CBE), competency-based assessment (CBA) and Outcomes-Based Education (OBE).
5. *Application of learning outcomes:* in the curriculum design process.
6. *Pedagogical approaches:* promoted by the policies frameworks and curriculum documents.
7. *Structure and progression within the curriculum:* the analytical tools developed in the ACQF mapping study provided a basis for this work.
8. *Quality assurance:* approaches and systems.
9. *Alignment of the curricula to qualifications frameworks:* where these exist, the findings from the ACQF Mapping Study provided a basis.
10. *Future-looking components and innovations:* including skills for the future and a move towards more digital skills.

The online Google survey was administered in three languages: [English](#), [French](#) and [Portuguese](#). The three questionnaires can be accessed through the hyperlinks embedded in the previous sentence. Google is generally accessible across African member states and has proven a successful medium through which surveys of this nature and scale can be disseminated. This platform also allowed for relevant requested additional resources to be attached in survey responses. The online survey was designed by a JET team consisting of:

- five regional experts (fluent in French, seSwati, kiswahili, Arabic and Portuguese);
- two curriculum experts (for schooling and TVET respectively); and
- a qualifications framework expert.

1.3.4 Survey response rate

The survey instrument was designed to allow for flexible responses to accommodate different country profiles and education systems. A list of respondents to whom the survey was circulated was provided by the ACA and CESA Cluster and was complemented with updated data collected by the ACQF project. The final version of the list comprised 97 respondents from 55 AU member states (all countries were contacted), AUC, NGOs, and international agencies working in education. The survey was only circulated to these group and was not open to the public. The survey was initially piloted amongst a group of ten identified respondents, covering all three languages.

A [response rate](#) of 29% was achieved through responses from 16 countries out of a total of 55 countries who were invited to participate in the survey, including 26 responses overall (15 in English, 9 in French and 2 in Portuguese). The response rate was sufficient to provide a basis for the analysis of the data presented in this report, although more countries would have been beneficial. It is proposed that the ACQF Project consider administering the survey (using the same instrument for comparison purposes, although it could be shortened to enable a higher response rate) again in future to extend the mapping.



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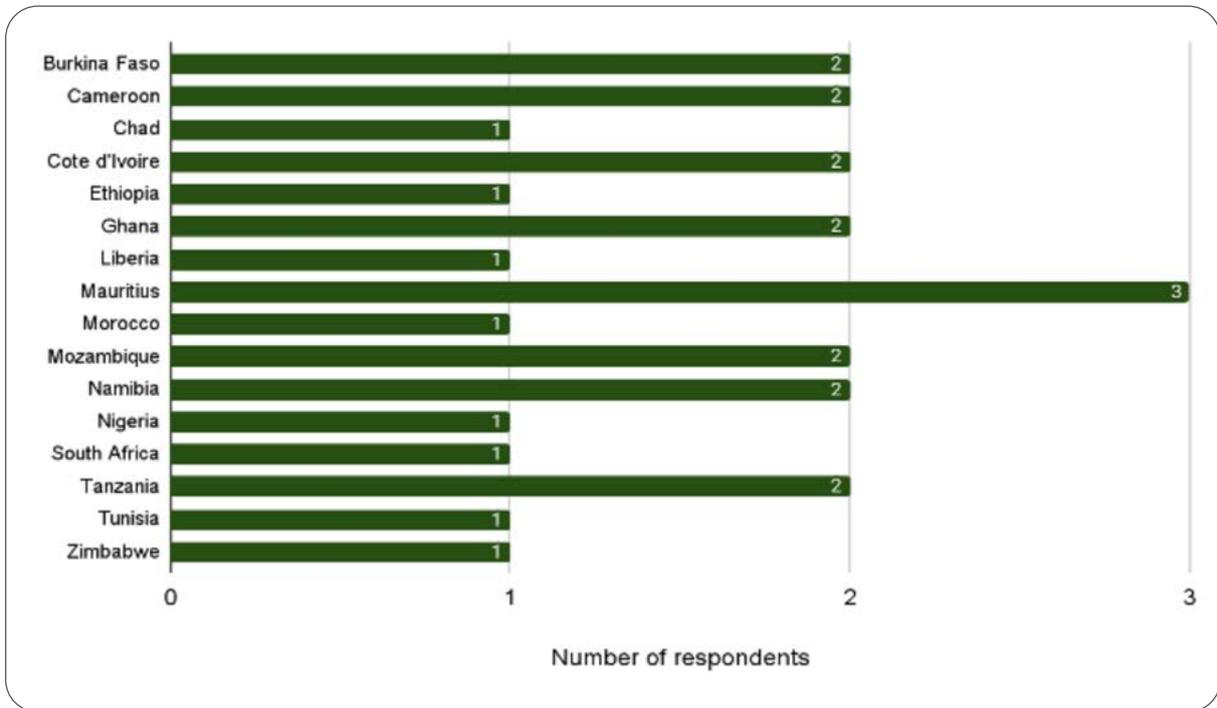


Figure 1: Number of responses per country

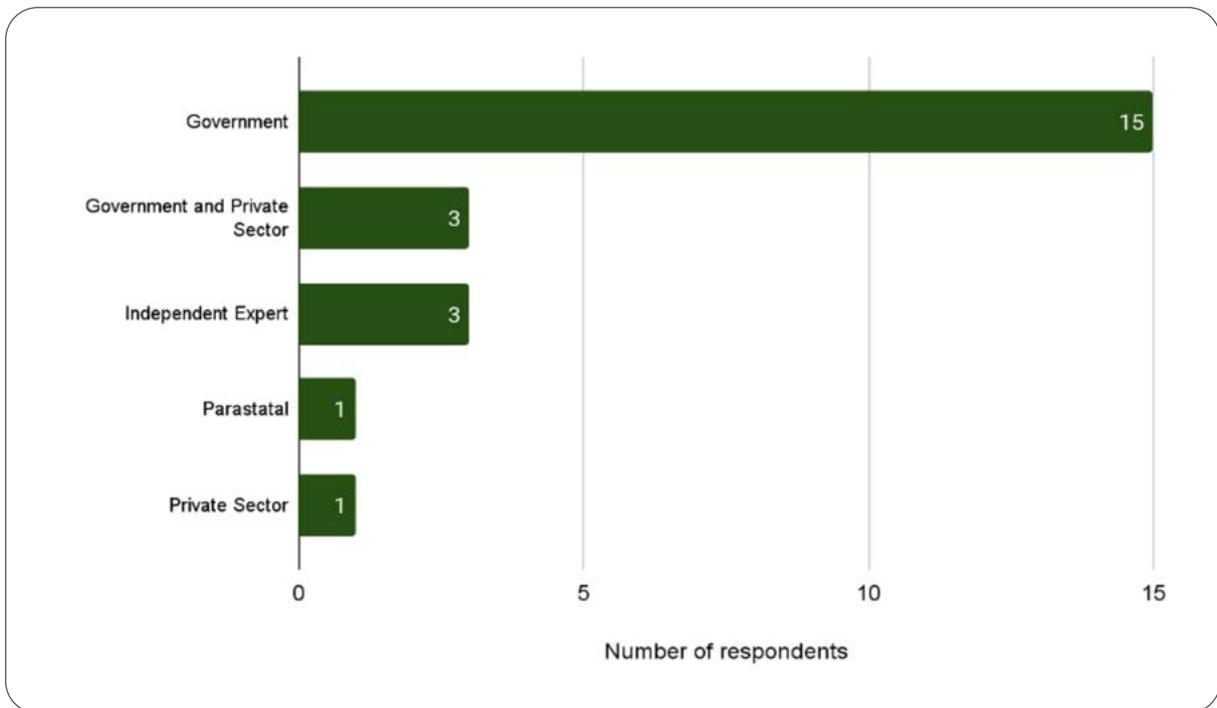


Figure 2: Number of responses per sector



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A majority of respondents (65%) completed the survey as representatives of the government sector. Three respondents answered the survey from both a government and private sector perspective, whilst another three respondents were independent experts.

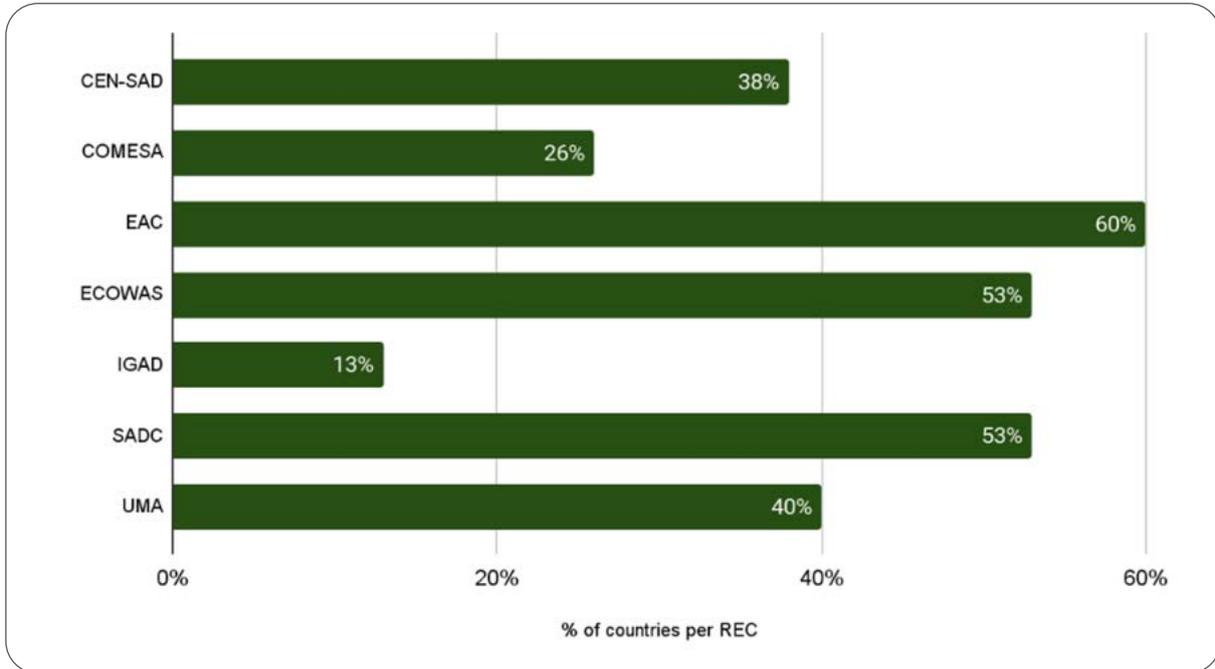


Figure 3: Percentage of responses by Regional Economic Community

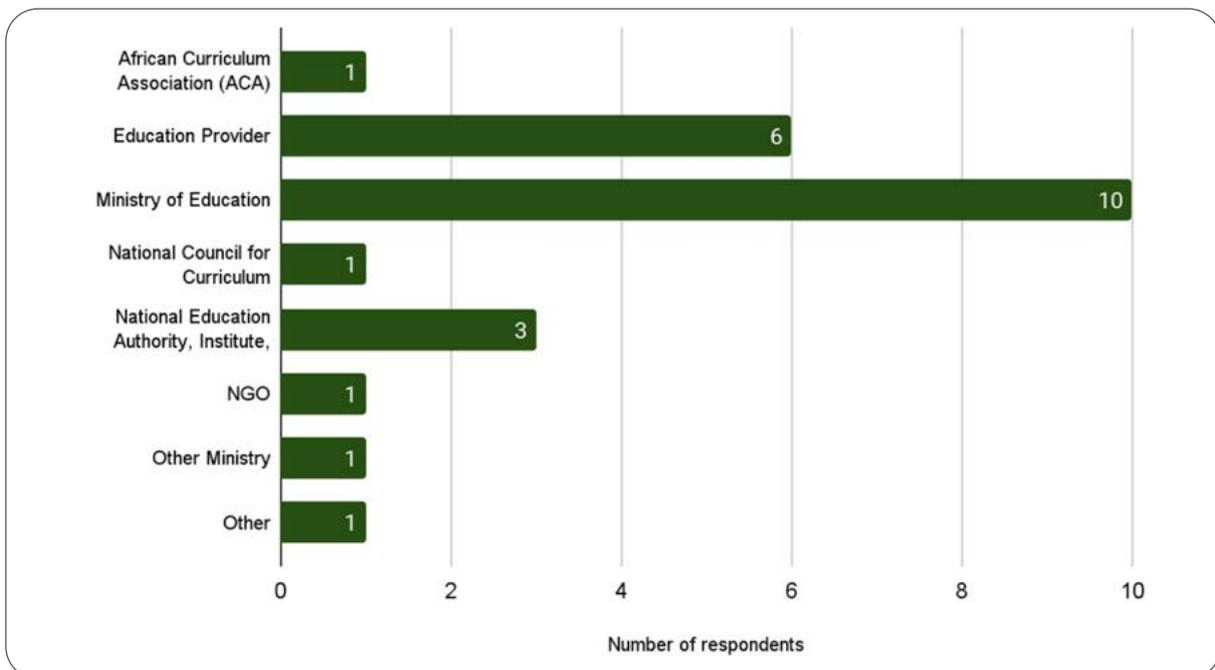


Figure 4: Organisational affiliations of respondents



Most respondents were affiliated to Ministries of Education, with 10 respondents being representatives of their respective Ministries of Education. Six respondents were education providers whilst three respondents belonged to either a national education authority, institute, or council. As noted in the study limitations below, it is important to recognise that the study did not set out to achieve statistical significance, but rather tries to provide a broader, mainly qualitative, baseline for further work that is required.

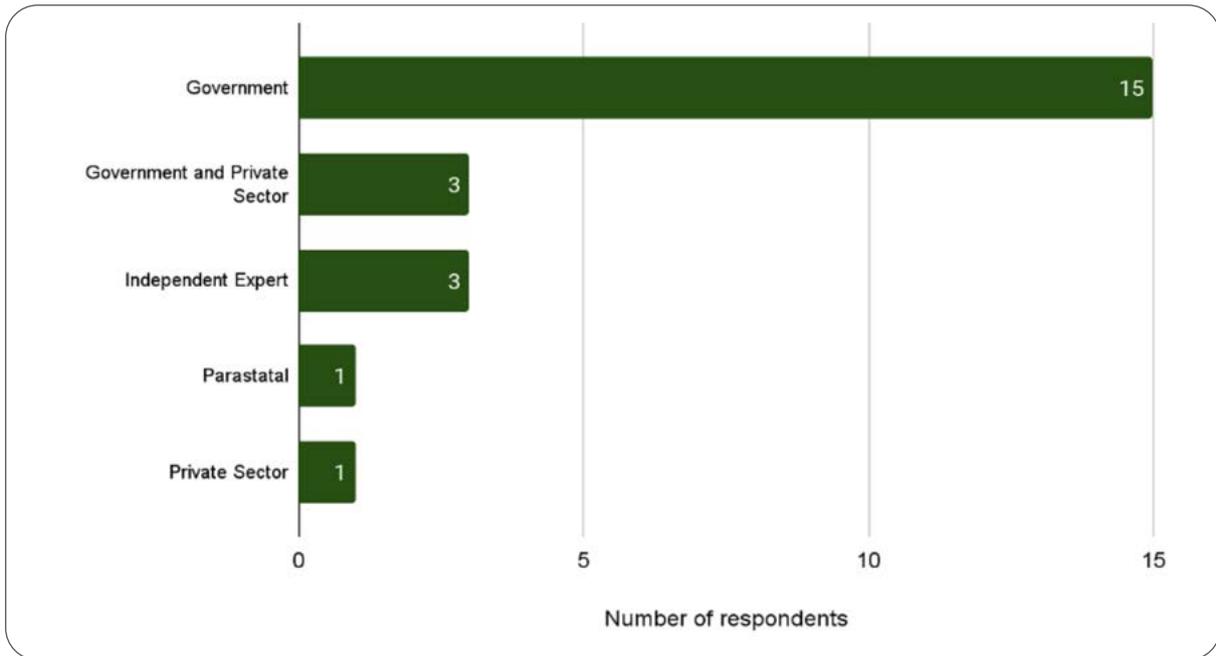


Figure 5: Organisational types represented

1.3.5 Desktop analysis

Complementary desktop research contributed to a more robust analytical design and survey instrument. Exploratory [country fiches](#) were developed through the desktop process. These fiches provide a starting point for further work, but in their current form they are not ready for public consumption.

1.3.6 Aspects not included in the survey

Importantly, the survey excluded the following: curricula of non-formal courses; national and regional policies that did not relate to curriculum in an explicit manner; international curricula and policies of any type (outside of Africa); intended² and enacted³ curricula of any type (the focus was on planned curricula only); higher education curricula (the focus was on schooling and TVET only); private sector or for profit curricula; and curricula solely designed for online delivery.

2. 'Intended', 'official' or 'planned' curricula comprises a "set of formal documents which specify what the relevant national education authorities and society expect that students will learn at school in terms of knowledge, understanding, skills, values, and attitudes to be acquired and developed, and how the outcomes of the teaching and learning process will be assessed. It is usually embodied in curriculum framework(s) and guides, syllabi, textbooks, teacher's guides, content of tests and examinations, regulations, policies and other official documents (UNESCO IBE, 2013). <http://www.ibe.unesco.org/en/glossary-curriculum-terminology>.

3. 'Enacted' or 'implemented curricula' refers to "[t]he actual teaching and learning activities taking place in schools through interaction between learners and teachers as well as among learners, e.g. how the intended curriculum is translated into practice and actually delivered" (UNESCO IBE 2013) <http://www.ibe.unesco.org/en/glossary-curriculum-terminology/i/implemented-curriculum>





1.3.7 Limitations of the study

The descriptive statistical data included in this report has been presented in such a way that it aids understanding of the topics and questions under discussion and makes for a coherent reading experience. This means that the order in which the survey questions are discussed do not necessarily correspond to the numbering used in the survey. The data is analysed and presented in two ways: one type of response refers to ‘number of respondents’ which indicates the total number of responses received for that particular question. The second way was, where possible, to aggregate the responses on country level, indicated by ‘countries’. In a handful of instances, survey data was supplemented with data from organisations like the UNESCO Institute for Statistics (UIS) or the World Bank, for comparative or supplementary purposes. Lastly, survey respondents were asked to provide various qualitative definitions for key terms identified in this report. This descriptive data is included in the chapters that follow but were not subject to a full qualitative analysis. All survey responses presented in this report should be treated as ‘self-reported’ data and should be interpreted accordingly.

1.4 Report outline

The next chapter outlines the concepts that are important for the curriculum mapping study. These concepts include curriculum, qualifications, curriculum and qualifications frameworks, learning outcomes, schooling curriculum approaches and TVET curriculum approaches. This is followed by Chapter 3 that includes an overview of responses and the overarching findings from this survey. Chapter 4 is the concluding part of the report and outlines recommendations which are framed around trends, challenges, and new developments in the curriculum field.



2. CONCEPTUAL FRAMEWORK

Key points

- This mapping study has been commissioned as part of the broader ACQF process, and as such, the study assumes that there is an important interrelationship between three key concepts, namely curricula, qualifications and learning programmes.
 - o *Curriculum*: the inventory of activities implemented to design, organise and plan an education or training action.
 - o *Qualification*: the planned combination of learning outcomes with a defined purpose or purposes, including defined, applied and demonstrated competence and a basis for further learning.
 - o *Learning programme*: a written document planning learning experiences in a specific learning setting. It is developed on the basis of the curriculum and takes into account the learners' needs
- Learning outcomes (statements of what a learner knows, understands and is able to do on completion of a learning process) constitute the common base taxonomy on which the concepts of curriculum, qualification, and learning programme are understood, developed and interrelated.
- Two issues emerge as top priorities as a result of the Covid-19 pandemic: (1) Reading is the gateway to all other learning, informed citizenship and success in the job market; (2) The importance of digital education, which in the last two years has grown exponentially in schools serving the middle classes but has gained little traction in schools serving the poor.

2.1 Key concepts

This curriculum mapping study was undertaken as a survey, with its design based on an initial desktop review, and a set of key informant interviews. As explained in Chapter 1, four research questions further guided the research, which in turn, were premised on the thematic pillars utilised in the ACQF Mapping Study (GIZ, ETF & AUC 2021). Collectively, these elements contributed to a conceptual framework that is further elaborated in this chapter by drawing on recent trends in curriculum related to schooling and TVET reforms. It must be noted at the outset that this mapping study has been commissioned as part of the broader ACQF process, and as such, the study assumes that there is an important interrelationship between three key concepts, namely curricula, qualifications and learning programmes. For a more elaborate discussion on these interrelationships within the context of qualifications frameworks, the reader is encouraged to look at the ACQF Mapping Study (GIZ, ETF & AUC 2021).

As an early part of the survey, respondents were asked to consider definitions for a number of key concepts related to curricula and curriculum development from official education policy or framework/s. This included definitions for 'curriculum', 'learning programme', 'qualification', 'credential', 'learning outcomes', 'workplace-based training' and 'competences.' A brief summary of the responses is provided below. In the first instance, 20 individual respondents confirmed the interrelationship between a curriculum and a learning programme, 27 confirmed an interrelationship between a learning programme and a qualification, and then 18 confirmed the same between a qualification and a curriculum (see the figure below). A common thread between all three concepts is the notion of learning outcomes, which is also elaborated below.



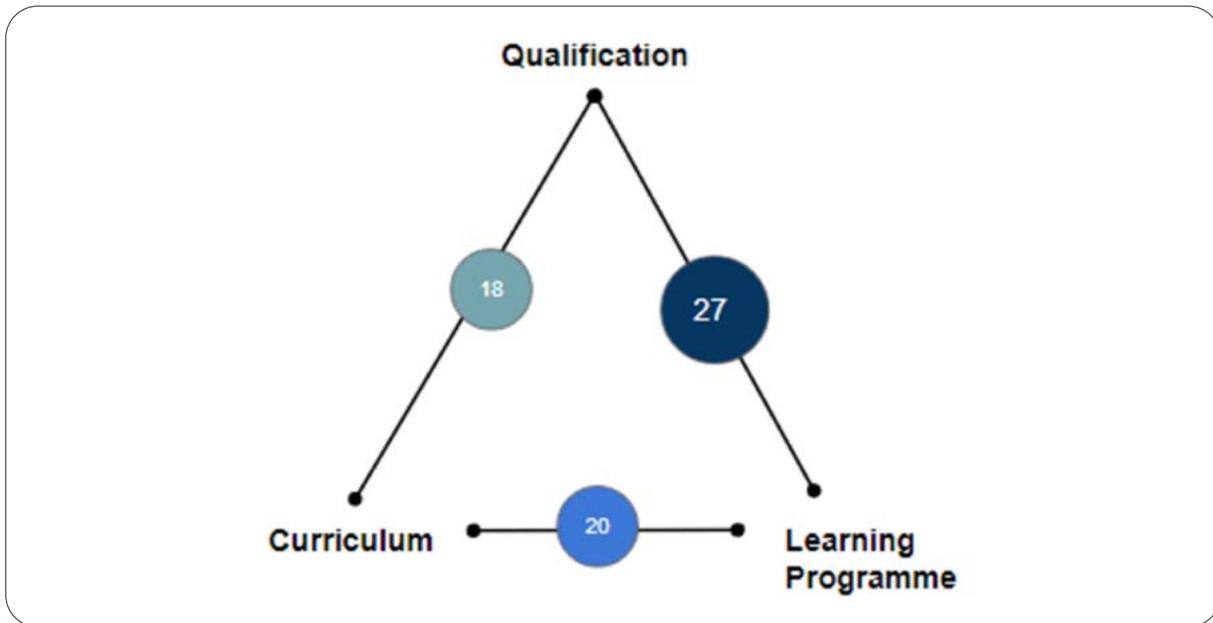


Figure 6: Reported interrelationships between the terms curriculum, learning programme and qualification

2.1.1 Curriculum

Curriculum is defined as:

...the inventory of activities implemented to design, organise and plan an education or training action, including the definition of learning objectives, content, methods (including assessment) and material, as well as arrangements for training teachers and trainers (CEDEFOP in GIZ, ETF & AUC, 2021).

Many survey respondents described a curriculum as something that guides teaching, learning and assessment. It was also defined as the “sum total of all learning experiences and opportunities that are provided to learners in the context of formal and non-formal education”, as well as “standardised learning experiences” which generally includes “the purposes, content, activities, learning approaches, methods, means of assessment of learners’ achievements and the main orientations to be given to pedagogical and didactic approaches.”

Other definitions of curriculum focused on learners, explaining that it is “an overarching framework describing what, why, how and how well learners should learn in a systematic and intentional way”, and curriculum is “what learners will learn, how they will learn it and with what materials they will use in the learning process”, as well as “the course of study which embodies a learner-centered approach enabling learning to become more permanent, meaningful and exciting affording learners to take ownership of the learning process.” This results in the “full development of the student.” Further explanations of curriculum include it being a “set of elements relating to the contents of teaching and learning activities”, as well as a “set of elements [when] linked together allow for the operationalization of a pedagogical action plan within an education system.”

Many definitions included an element of contextualisation, stating that a curriculum is “a mirror to the society that reflects the philosophy and culture of that society” and is “aimed at a well-targeted audience”. Furthermore, it was stated that a curriculum indicates the “context and direction a system of education should take for its implementation” and is underpinned by the “historical, social, political, economic, religious, geographic and cultural realities of a country, region or locality.”



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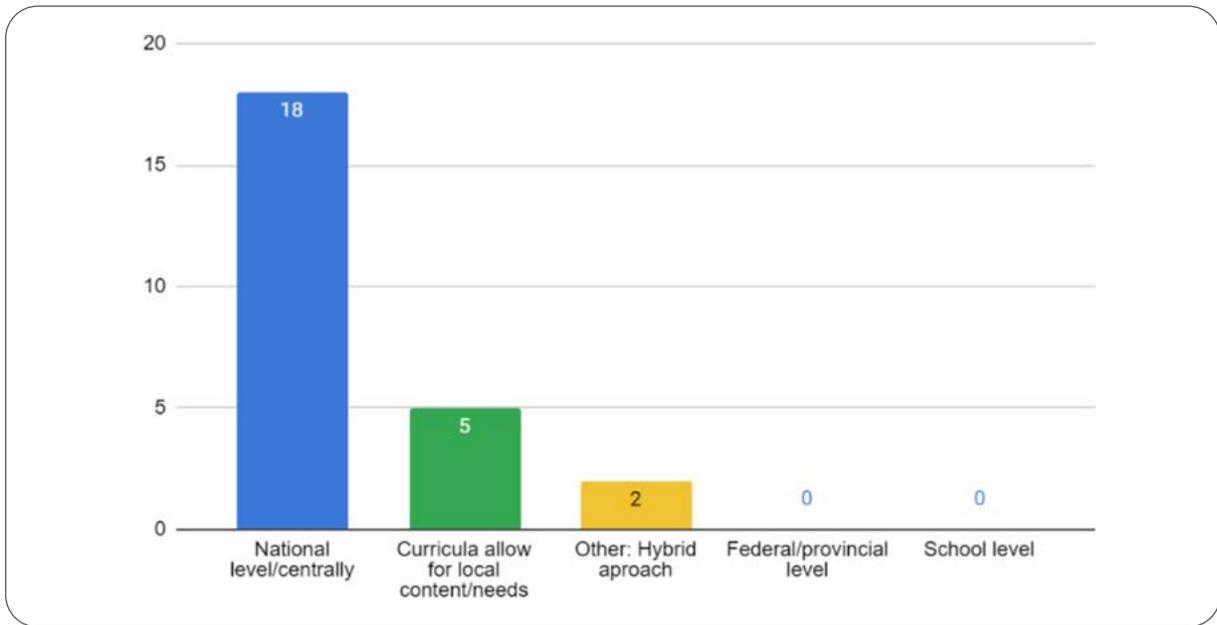


Figure 7: Locus of control for curriculum development, implementation and monitoring

When asked to comment on curriculum flexibility, the majority of survey respondents (72%) indicated that curriculum development, implementation and monitoring takes place at the national level or centrally, making it less flexible. Only 2 respondents indicated the use of a hybrid approach involving stakeholders from regional and local levels. In these instances, curricula are more flexible and allow for incorporation of local content or needs (Figure 7).

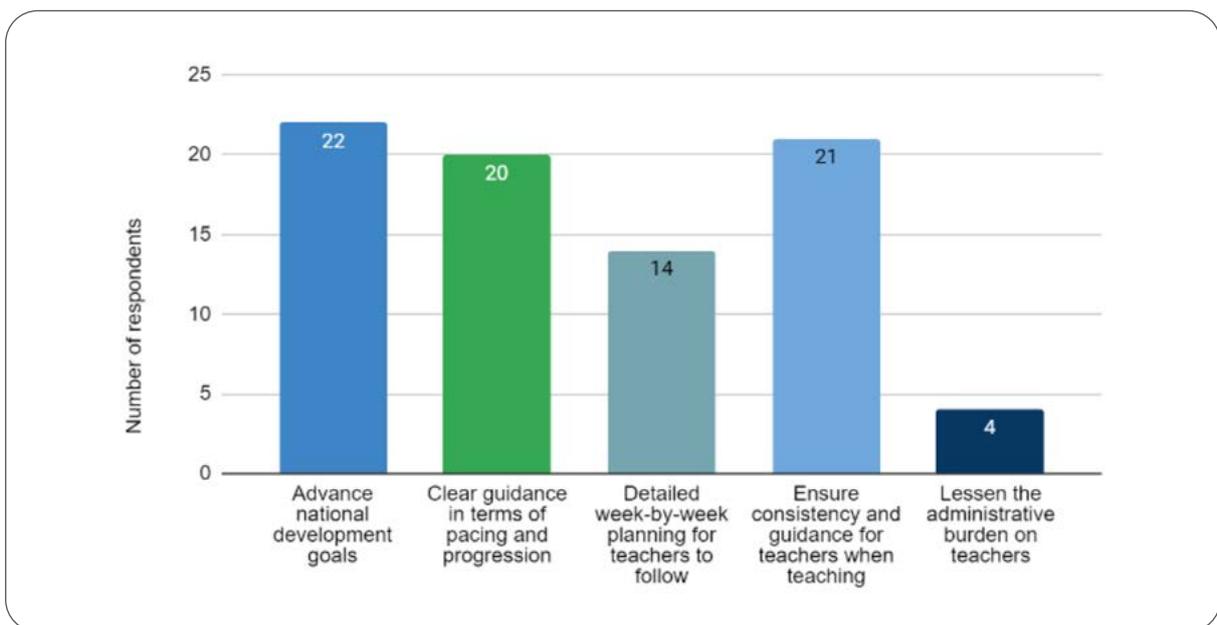


Figure 8: Main curriculum objectives





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According to survey respondents, the main objectives of the curriculum in various countries included: to advance national development goals (27%); to ensure consistency and guidance for teachers when teaching (25.9%); and to provide clear guidance in terms of pacing and progression (24.6%). The least reported curriculum objectives were to provide detailed planning for teachers to follow (17%), and to lessen the administrative burden on teachers (4.9%).

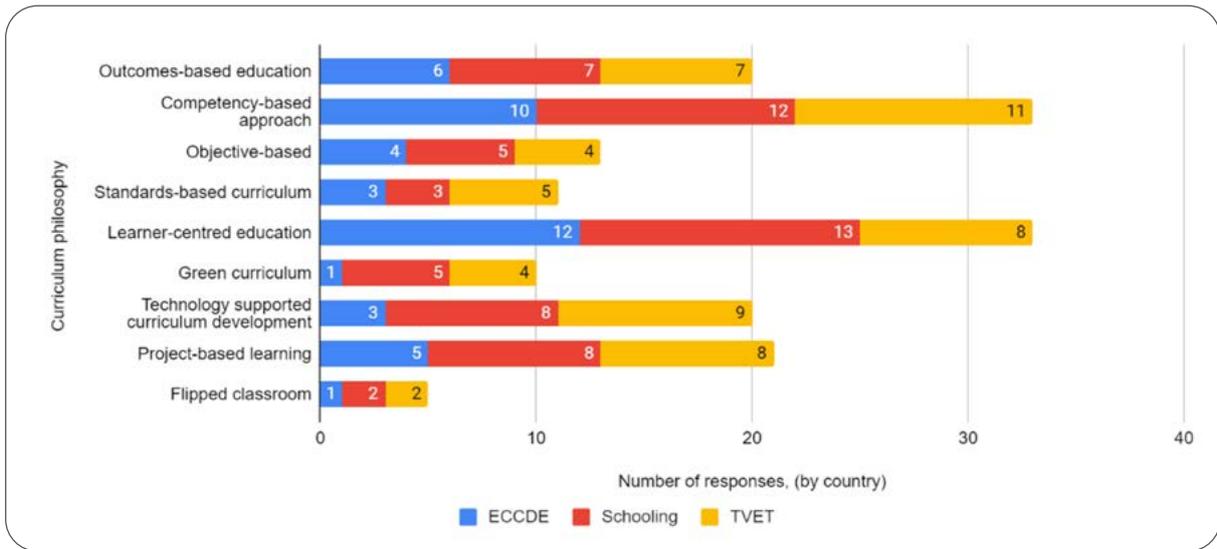


Figure 9: Approach underpinning curriculum development

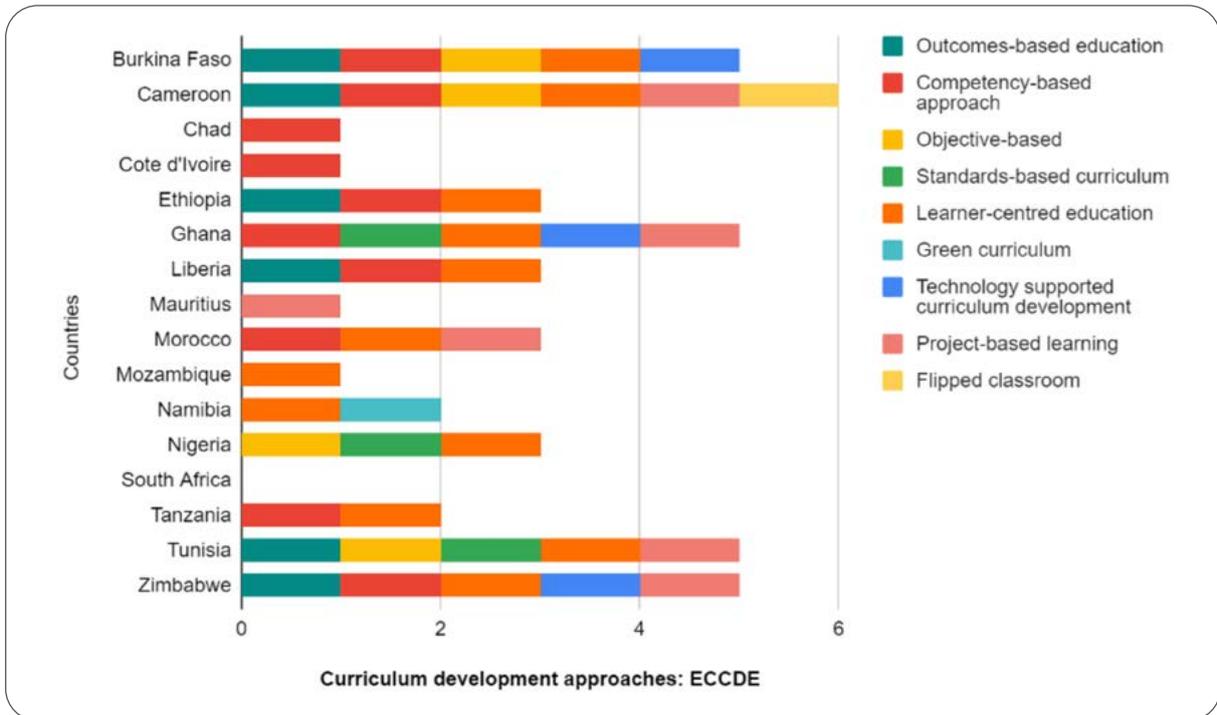


Figure 10: Approach underpinning curriculum development in ECCDE sector, by country



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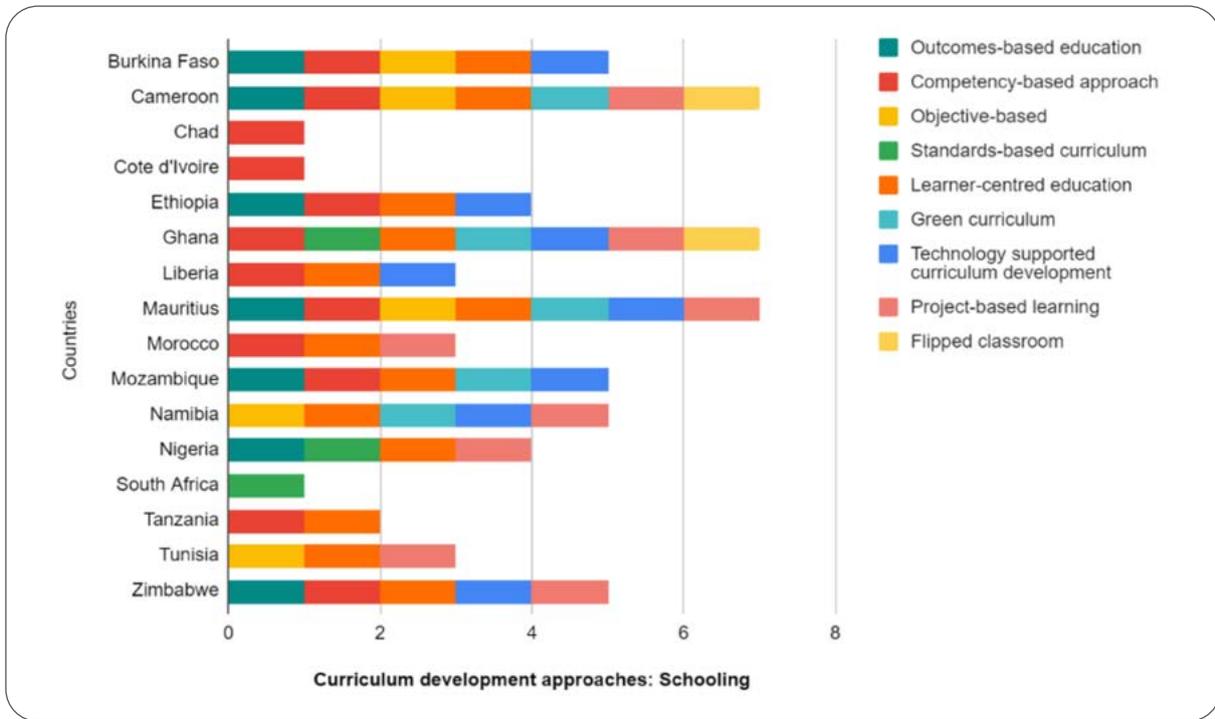


Figure 11: Approach underpinning curriculum development in Schooling sector, by country

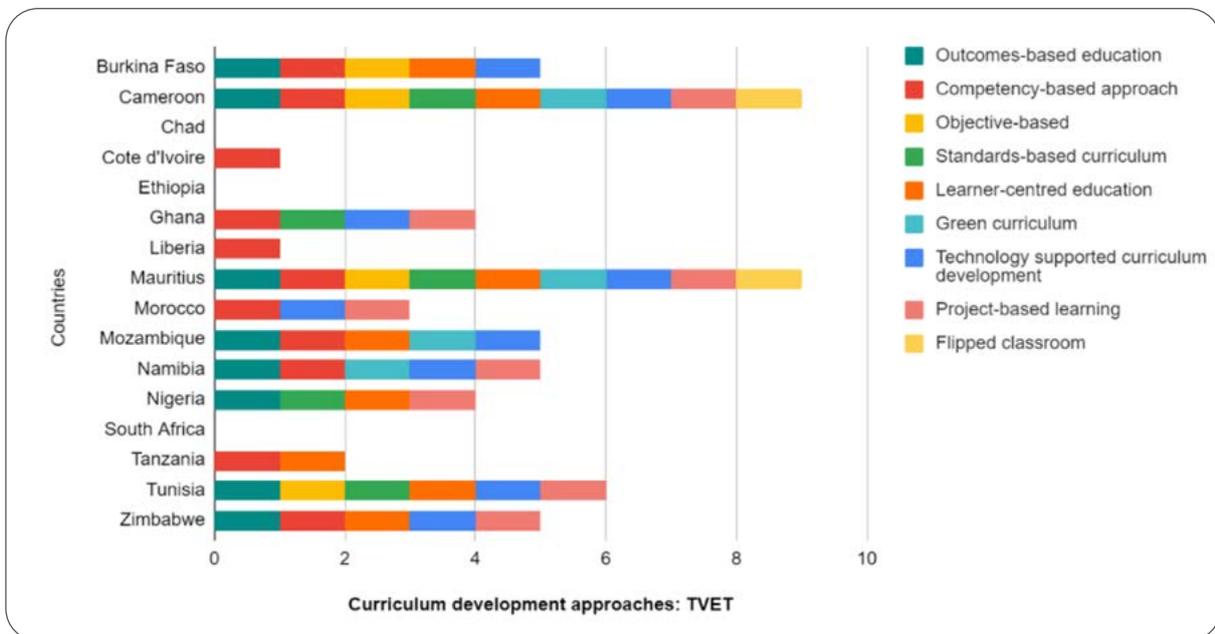


Figure 12: Approach underpinning curriculum development in TVET sector, by country



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Based on responses from 16 countries, the most popular philosophies underpinning curriculum development was either learner-centred education or a competency-based approach (CBA) in both ECCDE and Schooling. Reflecting an ongoing trend in curriculum reform which has seen the majority of African countries introduce competency-based curricula (Mastercard Foundation, 2020:97), interview respondents also confirmed the use of CBA in both TVET and schooling, with the suggestion that universities adopt the philosophy in order to produce graduates that are work-ready on graduation and equipped to enter the labour market. 9 countries indicated that technology supported curriculum development was an approach which underpinned curriculum development in the TVET sector.

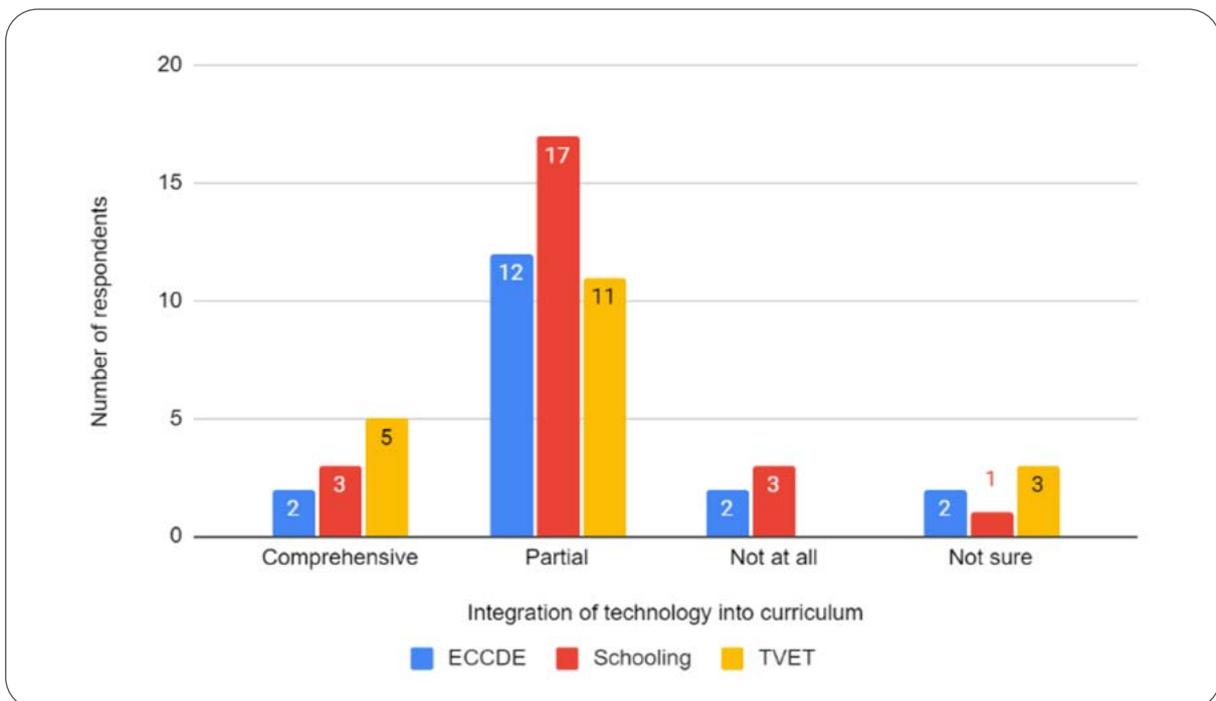


Figure 13: Integration of technology into the curriculum

Given that 9 countries reported that technology supported curriculum development was an approach which underpinned curriculum development in the TVET sector (question 51), it was surprisingly to find that only 5 respondents (out of 25) reported that technology was integrated into the curriculum comprehensively in the TVET sector, while 11 respondents reported that they were not sure whether technology was integrated into the TVET curriculum. 12 and 17 respondents reported partial integration of technology into the curriculum in the ECCDE and schooling sectors respectively.

Interview respondents report the incorporation of technology in curriculum development, and in education more generally. However, one respondent indicated that “technology is used informally” because of a lack of ‘systematic and formal’ means of integrating technology into the curriculum or into teaching and learning practice. This indicates a possible misalignment between the use of technology in curriculum development and planning processes as a philosophy and “as a core competency” across all three education sectors, and the implementation of technology-based approaches in practice. One respondent reported that “learners in rural areas have... not benefited due to infrastructure challenges such as lack of electricity” meaning that the ability of countries to implement technology use across any or all of the three sectors is, at the local level, varied and constrained by generally poor infrastructure and connectivity challenges.



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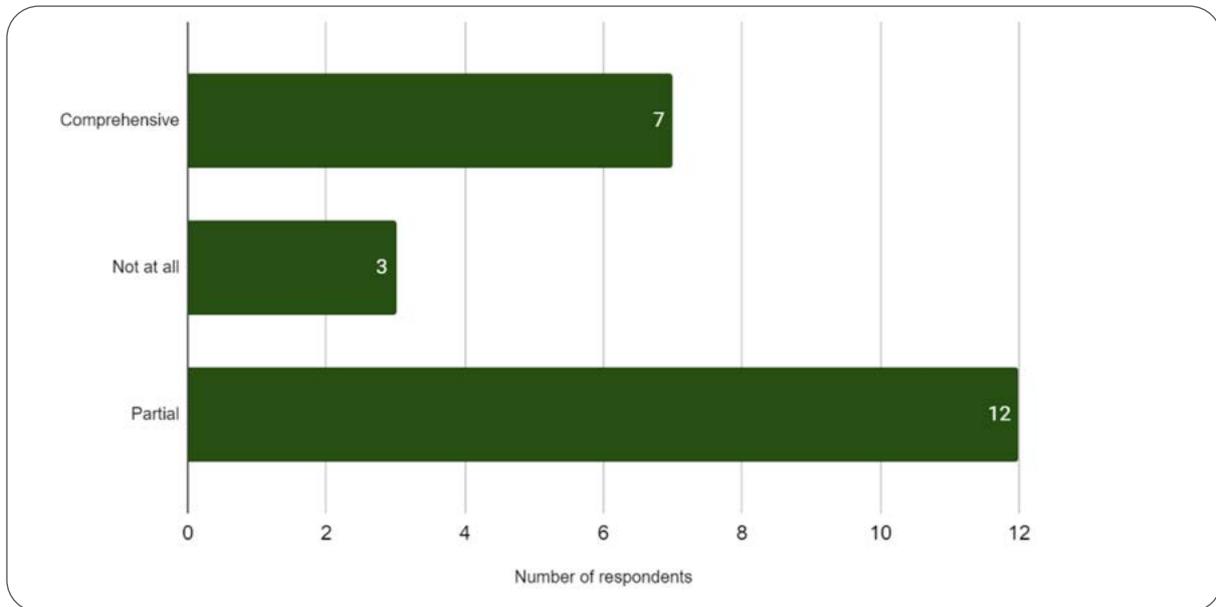


Figure 14: Extent of programmes that support lifelong learning in a continuing education modality

Survey respondents were asked to indicate the extent of programmes that support lifelong learning in continuing education. 32% of respondents, including Ethiopia, Ghana, Nigeria, Tunisia and Zimbabwe said that this was done ‘comprehensively’, while the majority of respondents (54%) including Burkina Faso, Cameroon, Liberia, Morocco, Mozambique, Namibia and South Africa and Tanzania indicated that this was only done ‘partially’. 14% of respondents from Cote d’Ivoire and Burkina Faso said that this was not done at all. Respondents from Mauritius indicated that both ‘partial’ and ‘comprehensive’ programmes were available that support lifelong learning. The need for programmes that support lifelong learning is becoming increasingly important as changes in the type and nature of employment require learners and employees to develop new skills.

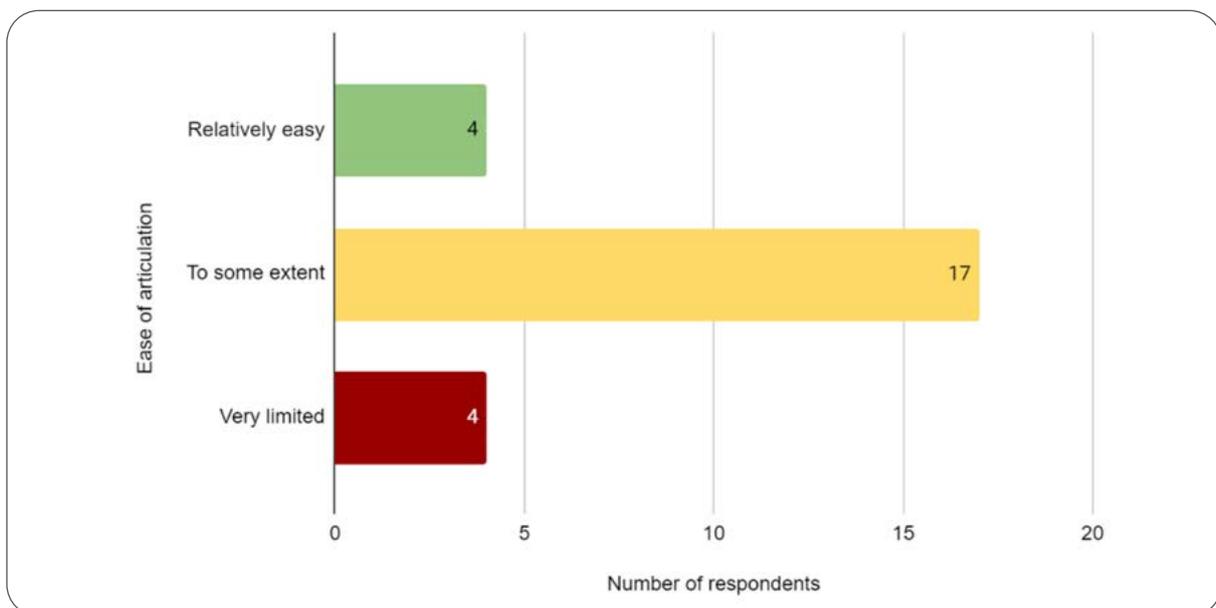


Figure 15: Extent to which learners can move between academic and vocational pathways





Mirroring findings reported in the Mastercard Foundation's *Secondary Education in Africa* report (2020:88) that it is difficult for students to transition between general and technical or vocational education pathways, only four respondents including Ethiopia, Ghana, Morocco, and Nigeria (16%) reported that it was relatively easy for learners to move between academic and vocational pathways. A further 17 respondents (68%) including Burkina Faso, Cameroon, Cote d'Ivoire, Mauritius, Mozambique, Namibia, South Africa, Tanzania, Tunisia and Zimbabwe reported that this can be done to some extent. A further 4 respondents (16%) including Burkina Faso, Chad, Ghana and Liberia said that this was "very limited".

This could indicate that articulation or progression between education sub-systems, which indicates whether a set of qualifications in a field, or in an academic pathway "are designed to fit well with each other" (Tuck, 2007:12) based on the links between knowledge and skills in each qualification is not well developed in the respondent countries. Articulation facilitates movement of learners between sectors and institutions and is achieved through a mix of interventions including policy and strategy, NQFs, credit recognition and transfer schemes, RPL, and quality career guidance resources (Field and Guez, 2018:45). An efficient post-school education and training system requires a high level of articulation within and between the qualifications frameworks, learning programmes and institutions, underpinned by legislation (South African Government Gazette, 2016⁴).

2.1.2 Learning programme

A learning programme is defined as:

...a written document planning learning experiences in a specific learning setting. It is developed on the basis of the curriculum and takes into account the learners' needs (CEDEFOP in GIZ, ETF & AUC, 2021).

A learning programme was defined by respondents as a "course of study"; "a set of modules"; a "list of organised material to be used in teaching and learning in different levels of education"; "planned and structured activities" that schools carry out with learners, and which are aligned to the curriculum. Learning programme also refers to the "learning strategies to provide quality education and training" and is centred around learners and their "personalised evolution in the appreciation of knowledge."

One respondent defined a learning programme as:

...the translation of the study program into transversal and disciplinary competences to be developed by the learner through the proposed learning activities in class, distance or self-learning with the supports provided mainly in school books.

A learning programme was also defined as a "set of training activities, professional training and research in a particular field of study". One respondent explained that a learning programme consists of "knowledge, skills and attitudes to be developed and demonstrated to achieve a standard competence unit."

4. <https://www.dhet.gov.za/LegislationCall%20for%20Comments/Notice%20and%20policy%20Articulation.pdf>



2.1.3 Qualification

The UENSCO Institute for Statistics (ISCED, 2012:82) defines a qualification as:

Official confirmation, usually in the form of a document certifying the successful completion of an educational programme or of a stage of a programme. Qualifications can be obtained through: i) successful completion of a full programme; ii) successful completion of a stage of a programme (intermediate qualifications); or iii) validation of acquired knowledge, skills and competencies, independent of participation in such programmes. This may also be referred to as a 'credential'.

The ACQF Mapping Report (2021, p.193) defines a qualification as a:

...planned combination of learning outcomes with a defined purpose or purposes, including defined, applied and demonstrated competence and a basis for further learning”.

A qualification was defined by a number of respondents as that which is awarded after the attainment of a “coherent cluster of specified outcomes of learning” or the “required number and range of credits”, following assessment processes (which could include evaluation and validation). This means that the individual with a specific qualification bears the “special skill, experience, knowledge or competencies”, after “going through a standardised educational programme”, enabling them to do a particular job or activity or to be employed. One respondent mentioned that a qualification is linked to the “competences defined by the educational policies”. Another respondent referred to a qualification as the “minimum grade attained by a candidate at a certain level of education” and another explained that a qualification “gives one a recognition to be considered for future study.” A qualification was also seen to “correspond to national standards defined in the reference frameworks of the exams and which make it possible to locate the level of acquisition of the competences introduced in the school curriculum”.

2.1.4 Learning outcomes

Learning outcomes are defined as:

...statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence (GIZ, ETF & AUC, 2021:191).

12 respondents defined learning outcomes as the knowledge, skills, abilities, and competencies learners are expected to have acquired upon the completion of a specific learning programme or process. One respondent specifically regarded learning outcomes as “the success or mobilisation of learning in various contexts.” Another definition explained that learning outcomes are “measurable objectives which the syllabus or the curriculum set for learning.”

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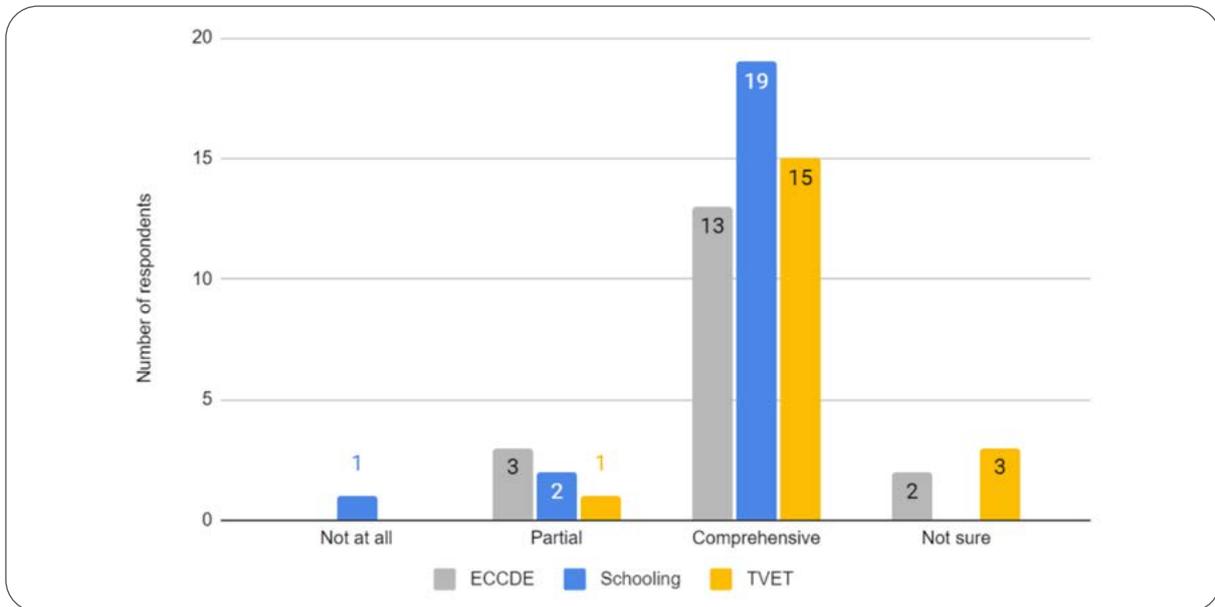


Figure 16: Explicit reference to learning outcomes in the curriculum

Based on 24 responses from 16 countries, the majority of respondents reported that there was explicit reference to learning outcomes in the curriculum, across the three sectors.

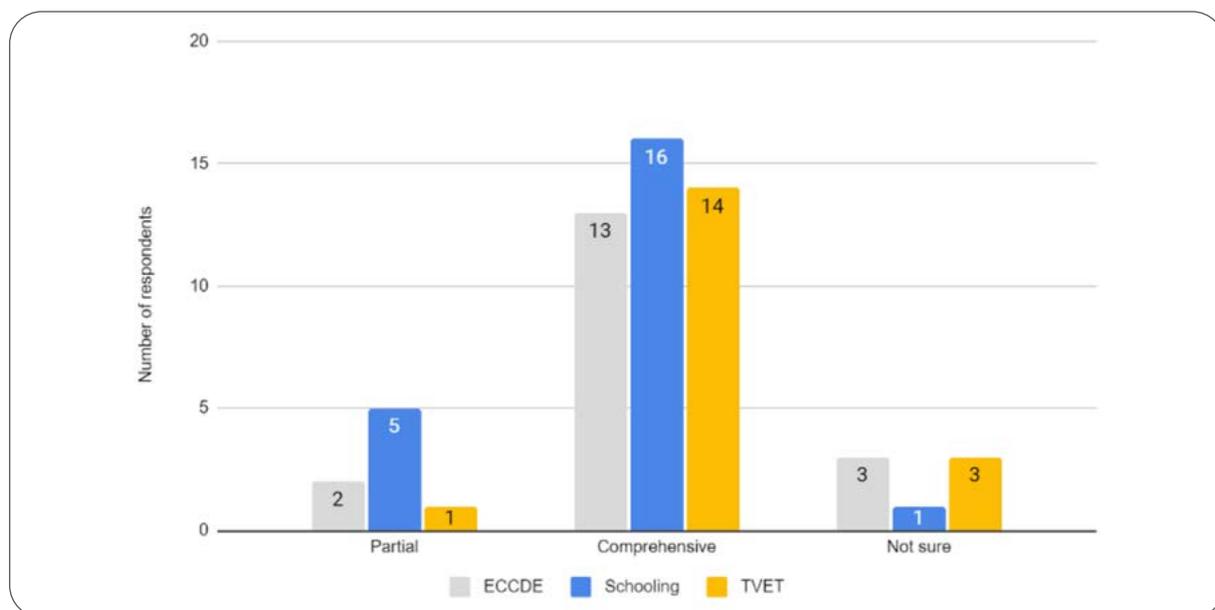


Figure 17: Links between assessment instruments and practices and learning outcomes



The majority of respondents (74%) also reported that assessment instruments and practices are comprehensively linked to learning outcomes across the sectors. This linkage can contribute to improved quality of education as the emphasis is on what information, knowledge, understanding, attitudes, values, skills, competencies, or behaviours learners should master when completing a specific curriculum.

2.1.5 Other concepts

In addition to the four key concepts outlined above, there are several others that related directly to curriculum, curriculum reform, and also future trends. Two of these are elaborated below, while several others are taken up further in this chapter, and also in Chapter 3 which presents the survey findings in greater detail.

Workplace-based training

UNESCO-UNEVOC defines workplace-based training (WBT) as:

...an educational approach for secondary and postsecondary students that provide opportunities to achieve employment-related competencies in the workplace, actually it provides students with knowledge and skills that help them connect school experiences to real-life work activities.

Workplace-based training was defined by respondents as a “hands-on learning strategy that provides learners with real-life work experiences where they can apply academic and technical skills (learning experiences) in the real world of work as they develop their employability.” It was also defined as “practical learning in a production unit where the learner is immersed”, “induction” or “on-site training on a specific skill” and “placement for in-situ working experience.” Another definition provided was “alternate/theoretical training at the institution and in an economic enterprise.” WBT was also defined as a “professional framework that facilitates the acquisition of competences in the learner and facilitates his integration into the professional world”, “planned learning outcomes derived from the experience of performing a work role or function in a real work environment”, and “in-service training” and “continuous professional development...which enables teachers and educational personnel to provide quality training.”

Competence

Competence is defined as:

...the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development” (Castel-Branco 2021, Thematic Briefs: Concepts and Definitions).

Competences were defined by respondents as the “knowledge, skills and attitudes needed to perform a task or life problem or those [knowledge, skills and attitudes] “stipulated in the occupational/ educational standards of the areas in which they underwent training/education.” Other examples included “specific objectives assessed in all subjects”, the “ability to carry out measurable activities related to a trade/job position” or to “perform tasks and fulfil obligations within expected performance standards” and are a “blend of skills rather than academic knowledge.” Broader definitions included 21st century skills required for the world of work and lifelong learning, the skills needed to “live in a contemporary knowledge society”, and “thinking and acting effectively in the face of different situations in everyday and professional life.”





2.1.6 Interplay between curriculum and qualifications frameworks

The interplay between curricula and qualifications is a longstanding tension that plays out internationally and was also most recently explored in the ACQF Mapping Study (GIZ & ETF 2021). Key to these debates is the fact that curriculum models, approaches and frameworks have a rich history that has evolved over more than 200 years, while the more recent introduction of competency-based approaches (CBA) (specifically in TVET), competency-based education (CBE), and qualifications frameworks since the late 1980s, is arguably less well developed, but certainly poses important considerations for curriculum researchers, developers and policymakers. The dominant model suggests a hierarchical relationship between qualifications, as broader guiding artefacts, and curriculum, as more detailed and operational in nature. In many instances learning programmes are considered a middle layer between qualifications and curriculum (see Figure 6).

The increased use of learning outcomes, in many cases promoted through the use of outcomes-based education philosophies and various contextual adaptations of the same, across all three levels (qualifications, learning programmes and curricula) promotes logical progression and common approaches, but perhaps as an unintended consequence, also result in some confusion about the differences between each. The more recent shift towards credentials as a fourth layer further complicates this landscape. These interrelationships lie at the heart of the ACQF and ACCF processes and constitute the foundations to achieving the ambitions of the CESA and Vision 2030 in Africa.

2.2 School curriculum reforms

In this section we discuss some of the curriculum forms around which learning may be organised in the school sector – preschool, primary and high school – as distinct from those relating to TVET, the workplace and higher education. Curriculum reform is instituted for a variety of reasons, from relatively minor modifications in order to keep up with changing trends in subject knowledge or pedagogy, to attempts to transform subjects around new ways of organising the teaching programme. The survey results described in section 3.7 below indicate that many African countries are currently implementing, or contemplating, one or other form of a competency-based approach (CBA), which is generally posed as an attempt to transform teaching and learning. The results of our survey echo those of a study of secondary school curricula in SSA undertaken in 2018, which found that, of 25 countries reviewed, 13 had adopted competency-based reforms since 2007 (Fleisch et al, 2019).

The roots of CBA can be traced all the way back to the writings of philosophers such as Rousseau, Pestolozzi and Froebel and, closer to the present time, to the ‘progressive education’ ideas of John Dewey (Posner, 1995). Chehayl (2010) defines the competency-based curriculum as a model in which educative goals are structured to discover and support the unique abilities and learning styles of individuals, thereby facilitating the achievement of their full potential. Emphasis is not placed on the memorisation of facts but on learners’ ‘proficiency in a particular realm’ (Chehayl, 2010: 131): the learner is placed at the centre of learning and experiential learning is emphasised, based on activities that allow learners to be submersed in authentic experiences and engage in critical reflection and self-expression.

CBA is generally set up against a ‘traditional’ or ‘discipline-based’ curriculum (DBC), which is characterised as teacher-centred and focusing on task analysis, teaching hierarchies, the use of drill and practice activities, and testing the accurate recall of disciplinary knowledge (Eryaman, 2010). This approach, it is asserted, limits students’ learning to narrow aspects of content knowledge and does not allow for real-life explorations and learning of issues of interest to school children; a discipline-based curriculum, it is claimed, consigns students to a passive, information-storing rather than information-producing role (Eryaman, 2010).



Suspending the view that this characterisation of the DBC is held by many to be something of a straw man (Young, 2008), the commonly held image of CBA, provided above by Chehayl, is very seductive to policy makers, offering the promise of transforming the school experience for learners and raising the quality of teaching and learning. It is therefore not surprising that many African countries are attracted to CBA. However, as the following discussion indicates, this approach is difficult, if not impossible, to implement in practice in the school sector, and great care needs to be exercised in the construction of the school learning programme. A number of case studies of African attempts at implementing competency-based approaches, or their close cognate outcomes-based education (OBE), are instructive regarding the design and operational challenges posed by such attempts.

Reporting on an evaluation of the CBA curriculum adopted in Benin, Yessoufou (2014) located the origin of the reform in a 1996 Conference of Education Ministers in Francophone Countries (CONFEMEN) which urged member countries to undertake curriculum reforms following the CBA model, and which, actively supported by development agencies such as UNDP, UNESCO, World Bank, UNICEF and USAID, subsequently undertook to assist curricular reforms in 23 countries. Advocacy in favour of the CBA reform emphasised the potential of the approach to groom children to become autonomous, competitive in the job market, self-dependent, democratic citizens and economically productive.

The evaluation of the new curriculum in Benin conducted by Yessoufou followed a qualitative design and fieldwork was undertaken in 2008-9 with 85 teachers and 246 parents in 17 relatively high performing urban and rural, public, private and religious schools in four of the country's 85 school districts. The former discipline-based curriculum was replaced by one in which the design teams integrated the 22 school subjects into six fields of study, or disciplinary competences: French language, mathematics, science and technology, social studies, art and physical education. In addition, designers introduced two categories of competences: transversal and transdisciplinary competences.

The evaluation reported disappointing learning outcomes ensuing from the new curriculum. Students' reading difficulties were noted as the most recurrent complaint, a result of what the evaluators considered to be inappropriate methods for teaching and assessing literacy. Grade inflation was observed, resulting, in the view of the evaluation, from an assessment scheme which allowed more students to pass without much effort in core subjects like French language and Mathematics. These design problems were exacerbated by the inability of teachers to grasp the complexity of the new curriculum design, the opacity of its terminology, and the large number of documents required to teach each grade. Material constraints further undermined the reform, with a lack of infrastructure, school libraries, science laboratories, materials and equipment being a common complaint among teachers. Moreover, many literate parents expressed frustration because the complexity of the curriculum rendered them unable to monitor their children at home as they were used to doing. Finally, the unfavourable atmosphere was exacerbated by what the evaluators termed a dysfunctional communication and public participation strategy, engendering resistance among teachers and parents.

The complex design features which characterised the Benin CBA curriculum mirrored that of South Africa's Curriculum 2005 (C2005) instituted in 1998 (Jansen, 1999). Motivated by the overwhelming desire to eliminate all vestiges of apartheid's authoritarian past and prepare students for a democratic future, C2005 moved away from a subject-based curriculum towards an outcomes-based approach (OBE). Instead of specifying the curriculum in knowledge terms, C2005 targeted 'critical outcomes' in learners, defined as 'broad, generic cross-curricular outcomes which underpin the Constitution' (Chisholm et al, 2000: 35). Subject boundaries were blurred into learning areas, grade levels were blurred into phases. Subject goals were stated in general terms, and teachers were expected to write their own lessons, based on themes such as Travel and embodied by 'real-life' activities. Teachers were exhorted to follow a child-centred pedagogy, to construct their own classroom materials and to 'facilitate' learning rather than teaching children directly: group activities were intended to largely supplant individual exercises in reading, writing and mathematics.





Teachers were ill-equipped to fulfil such demands. In mathematics, for example, unsure of which topics to teach, teachers resorted to setting endless variations on tasks such as counting passengers on buses instead of getting on with multiplication and division (Taylor, 2012). Within two years of its launch, C2005 was replaced by a DBC (DBE, 2012). Indeed, it is doubtful that a curriculum such as C2005 is implementable even in the most highly resourced jurisdictions, given the very onerous demands on teachers' time required to fulfil these expectations. At around the same time as C2005 was launched, a very similar curriculum was initiated in Western Australia (WA), with similar results. A major review of the WA Curriculum Framework (CF) was undertaken in 2009 (Andrich, 2009). The review concluded that the CF was being implemented with some success in only the most highly resourced schools, where resources are defined as including not merely the material, but also a professional way of working among teachers and school management, and high levels of parental involvement in the school. However, even in these environments, the review noted a high degree of teacher burnout, and the CF was also replaced by a new DBC.

Komba and Mwandaji (2015) investigated the implementation of a competence-based curriculum introduced in Tanzanian secondary schools in 2005. The specific objectives of the study were to examine the teachers' understanding of the objectives of the curriculum; to investigate teachers' ability to teach it; to examine the extent to which they involved students in classroom activities and to practice formative assessment in class. The research interviewed 186 teachers randomly selected from 13 secondary schools in one region, observed their classroom practices and examined their lesson plans. The study concluded that implementation of the curriculum was ineffective: 86% of the interviewed teachers did not fully understand its objectives, 78% of the lesson plans did not conform to the recommended design, student participation in class was very low, and formative assessment was practiced in fewer than 50% of the observed classes. To overcome these difficulties, the study recommended that regular in-service training for teacher be conducted in order to enable them to acquire the teaching skills required by the new curriculum.

In a final Francophone example Belibi (2018) explored the implementation of competency-based English language teaching in Cameroon secondary schools. Using ethnographic research methods, the study revealed that, inter alia, inadequacies in teacher education and the lack of infrastructure and teaching resources, coupled with weak school leadership, hampered implementation. Poor student motivation towards learning English was a further inhibiting factor, with students regarding English as not being useful to their lives. Discussions with both in-service and pre-service teachers revealed that the majority of teachers were confused about CBA principles and procedures because they had received contradictory information from different facilitators at different seminars.

The findings of these case study evaluations are echoed in a review of CBA reforms in five Francophone Countries by Gauthier (2013), who found that the approach did not improve student learning outcomes. Similarly, in an exhaustive review of the CBA literature, which includes a brief history of how the approach has 'traveled' from country to country, Lassnigg concludes that:

... there is hardly any evidence for the effectiveness of competence-based education despite the long period since the 1970s when the approach came up in the US (2015: 6).

Lassnigg concedes that CBA has been proved to be neither more nor less effective than alternative models. Indeed, policy-makers seek alternatives because of the poor outcomes which accompany many DBC approaches. It is very tempting to think that changing the *intended curriculum* will lead to changes in the *achieved curriculum*, to use the terminology of an early TIMSS publication (Schmidt et al, 1997). However, policy-makers must consider the possibility that the problem of poor learning outcomes may not lie with the *intended curriculum*, but rather in the *implemented curriculum*. Thus, in looking at curriculum developments it is not sufficient to confine attention to the policy documents describing what teachers are required to cover and how they should teach, but also to the support measures aimed at assisting teachers to achieve these aims (training, materials, school- and systems-leadership), and to the outcomes of these efforts (assessment, evaluation).



2.3 TVET curriculum reforms

The core focus of the TVET curriculum is to prepare and equip young people graduating to enter the world of work as competent and functional workers or pursue entrepreneurial paths in a skilled trade or occupation, and also readiness for life-long learning and social life. Curriculum lies at the core of the education enterprise whether academic or technical and vocational. The mapping agenda of this survey addresses a number of issues that are relevant to both academic schooling and technical and vocational education alike, but there are differences in how TVET institutions need to be accountable and responsive. There is a critical balance to be sought between achieving corresponding levels of curriculum quality and of quality of teaching and learning that school teachers or TVET lecturers are capable of delivering. Rightfully, a principal concern of the survey is to explore the standards, practices, and pre-service and in-service training and development needs of teachers in schooling and equally for TVET lecturers and instructors.

A fundamental difference between the school curriculum and TVET curriculum is that the latter makes its contribution through providing access to vocational and technical skills that need to be relevant to skills demand from the economy. Industry speaks to demand for relevant skills in many voices, sometimes reflecting the individual needs of influential employers or particular industry and sectoral interest groups, thus establishing real demand is complex. Interpreting the demands from industry and formulating an industrial strategy that is feasible and can be interpreted in the form of a TVET curriculum must also take into account rapid global and local economic change.

In many developing countries, the venerable institution of traditional apprenticeship is still being practised. This survey does not cover informal or non-formal learning, which is understandable given the need to focus, yet it is useful to point out the existence of an institutionalised form of teaching and learning such as the traditional apprenticeship. Therefore, it is important to view the TVET sector as quite complex and divergent in its curriculum manifestations, some of which are not strictly compatible with traditional compulsory schooling. Similar mentorship relationships are deliberately implemented as part of work integrated learning in the dual apprenticeship model for instance.

One of the features of the curriculum in formal schooling relates to cycles of change and the manner of such changes. TVET education is necessarily exposed to curriculum change in the form of pressures to absorb new technologies, encode curricula for new occupations emerging from industry, as well as optimise access of students to workplaces for work integrated learning.

Cycles of change in workplaces in recent decades are driven in particular by advances in new technologies which bring about large scale changes in industrial activities such as the shift in advanced economies towards the service industry. High technology manufacturing production systems have created waves of job destruction and creation. This has, as a consequence, created pressure on TVET colleges to develop new programs in evolving areas of technology development and application such as mechatronics. This survey takes into account different types of learning approach that underpin TVET curriculum teaching and learning and how curriculum change can follow a path between different types of learning approach. The TVET sector is exposed to the necessity of curriculum change and innovation through cycles of technology and industry change.

Further at the continental level there are two demographic mega-trends that are increasing in magnitude and are having - or will soon have - corresponding impacts which are: rural to urban migration and concurrently the rising proportion of youth as a proportion of the total population. There is no doubt that these trends are affecting African nations in many ways, but they are also highly relevant to TVET systems on the continent. What these two mega-trends portend is increasing numbers of young people migrating to the cities where apart from infrastructure provision, education and job creation are of critical concern to facilitate the flow of young people into the world of work and also to curtail unemployment.





Currently, TVET systems learner enrollment tends to be smaller - even substantially smaller - than mainstream academic schooling systems on the continent. Pressure to increase the size and accessibility of technical and vocational education will continue to grow. This is why it is important to visualise TVET curriculum development with reference to accessibility and why this survey requests data on learner numbers. The survey also incorporates indicators drawn from the Continental Education Strategy for Africa (CESA) which measures TVET expansion.

Though school level vocational streams are subject to age related compulsory attendance, this prescription does not apply to post-school TVET access which makes monitoring learner enrollment at TVET a vital statistic. Further on the matter of change in society and economy, this survey has appropriately included a question on Covid 19 impacts showing sensitivity to developing trends that can impact on how the curriculum mandate of TVET is managed, focused and financed.

Further curriculum relevant issues that are prominent on the continent include the fact that TVET, as a sector, involves limited female participation both as students and as lecturers, TVET institutions need to improve responsiveness to women's rights to access technical and vocational training. This is also a curriculum issue which requires sensitisation regarding assumptions and associations with TVET as a masculine domain. The desirable goal of lifelong learning is also mostly salient for TVET, since many mid-career technical and vocational workers now need mid-career skills inputs in terms of lifelong learning such as 4IR. Therefore, the age related enrollment of experienced people in technical and vocational career enrolling for development can be an important indicator.

Currently on the continent, private sector enterprises seem to play a limited role in development and funding of TVET. To investigate the existing levels of participation and to assist TVET systems and industry bodies to work more collaboratively would be important to map. This should be understood to need to go to mapping the individual firms that are involved given the strong emphasis on work integrated learning or work based experience, (relevant here is the promotion of institutional production units on TVET campuses for internally generated funds for financial sustenance and work experience) To be able to improve the quality of TVET institutions and programs it will be important to introduce robust and systematic quality assurance and assessment systems to oversee the quality and consistency of qualification systems,

A widespread challenge in TVET systems on the continent is the need to improve information and decision making systems in colleges themselves and also at the systems level. This is important for the future of mapping TVET in itself as cost efficient sustainable mapping of curriculum manifestation and physical locations of continental TVET will have to depend on the ability of national systems – down to individual institution level - to maintain their information and data system capacity.

2.4 African identity

A discussion on curriculum in Africa would be also incomplete without reflecting on curriculum planning and design in a wider perspective as a mechanism through which people's views if not their understanding of themselves and their cultures can be altered. There is an urgent need to develop curricula that establish an African identity (Van Wyk & Higgs, 2011), and should have the context of Africa as their focus, and as a result be "indigenously grounded and orientated" (p.172). The vision of an African education system that is able to produce generative curricula that is not isolated from global trends is espoused by many leading African educationalists, including Nsamenang and Tchombe (2011). In their "Handbook of African Educational Theories and Practices" the authors make a strong case for more a generative pedagogy, that is able "to secure African cultural identity and to teach African knowledge bases, complementing them with productive techno-cognitive contents and responsible values" (p.12). In this volume, several important considerations for curriculum design, delivery and review are elaborated on. The role of teachers to develop essential competencies and generic skills, but that such processes should remain sensitive to learners' rights to a cultural identity:



In actual fact, the importance of local knowledge, problem-solving and communicative skills, responsible actions, and other generic skills are gaining increasing emphasis in teacher education as is ingenuity in domain-specific knowledge and skills. (Nsamenang and Tchombe (2011, p. 12).

As both ACA (2021) and Ezeanya-Esiobu (2019) point out, there have been challenges since post-independence which still plague many African countries' education systems. Ezeanya-Esiobu (2019) argues that higher education institutions especially in Africa adopted Western education and the culture it embodies and did not examine the underlying foundations of such education systems. The author further argues that the “curricula advanced liberal arts and literary education at the expense of vocational and practical training, or technological literacy” and the university system, especially, has managed to alienate African society. The effect has been graduates in the university system that do not think critically within an African context, but rather imitate Western mindsets and cultures (Ezeanya-Esiobu, 2019).

Historical mapping of the formal schooling in Africa recalls that the period of colonialism enforced racial, ethnic and cultural misrepresentations of African identities in the curriculum which were overturned in the period of independence. Validation and promotion of African identities across the curriculum has brought outstanding achievements. Notable current challenges for curriculum development include: an array of identities that African people within and between countries on the continent bear (Adibe, 2013, 119); penetration of social media at all levels of societies especially among youth, and the presence of online ethnic and racial discrimination.

There is an important role for ACA to play in not only supporting the improvement of curricula across the continent, but also foregrounding the African experience and context within the curriculum to produce independent-thinking learners who are able to promote the vision of a new Africa that retains its unique identity while simultaneously shaping robust economic growth and shared human flourishing.

2.5 The impact of Covid-19

The Covid-19 pandemic has thrown the world upside-down, providing disruption, illness and death, but also providing opportunities to re-think issues which had been settled for some time. While the survey results presented in Chapter 3 provide some deeper analysis, it is important to briefly reflect on the broader impact of the pandemic on curriculum reform in both schooling and TVET. Two issues emerge as top priorities in these times, the first (early grade reading) preceding and transcending Covid-19 and the second (rethinking digital education) arising directly out of it. As discussed in our introductory paragraphs above, this study takes its cues from the 12 Strategic Objectives and the seven (7) roles of the CESA Curriculum Cluster. However, comprehensive as these frameworks are, there is a problem with lists of this kind. Priorities tend to get lost in the detail entailed in covering all bases. The items on these lists are not all of the same importance, nor can they follow any order: some must take precedence over others. For example, Strategic Objective 6 of CESA provides the foundation for academic study and reading, for both information and pleasure, and unless it is achieved, none of the other objectives can be successfully pursued. Reading is the gateway to all other learning, informed citizenship and success in the job market.

Of the 17 Sustainable Development Goals (SDGs) (UNESCO, 2018), Goal 4 refers to education: Ensure inclusive and quality education for all and promote lifelong learning. Much progress has been made in moving towards the access-related aspect of this target (greater numbers in school). However, with respect to both equity (boys still outnumber girls in many countries) and quality (learning outcomes), much remains to be done (UNESCO, 2018). Above all, raising learning outcomes has come to constitute a major focus, not only in low and middle-income countries (LMICs), but in many high income countries (HICs) too, including the US. Despite large increases in enrolment globally, the World Bank has introduced the concept of “learning poverty”, which highlights the learning crisis, especially in LMICs, where almost 53% of learners cannot read proficiently by the age of 10 and this crisis is likely to worsen





with school closures due to Covid-19, with the learning poverty rate increasing to 63% in LMICs (World Bank, 2021). Evidence currently emerging indicates that lockdowns have caused children, not only to spend time not learning, but actually regressing in their learning, losing some of the skills they had attained (Ardington, Wills & Kotze, 2021; Engzell, Frey & Verhagen, 2021). This problem emphasises the need to place an even higher premium on improving the teaching of reading in the early grades.

Curriculum certainly plays a central role in shaping what children learn, and in particular, how effectively they learn. But it is not only the school curriculum that matters, but also the curricula for pre-service and in-service teacher education. There is no point in having a world-class curriculum for schools if teachers are unable to implement it. In this regard, Zuilkowski and her colleagues note that the initial education of teachers is neglected in many countries, on the false assumption that providing scanty pre-service education in order to save costs can be compensated for by in-service courses. This is a short-term policy, with detrimental long-term effects. As a result of foreshortened ITE curricula, many teachers enter the profession without the subject-matter knowledge and pedagogical content knowledge required to sustain effective teaching (Zuilkowski, Sowa, Ralaingita, and Piper, 2021).

According to these authors, despite the central role of initial teacher education in promoting quality education, it has largely been left out of the significant investments made to improve foundational literacy and numeracy in LMICs over the past two decades. These bilateral- and multilateral-funded interventions have instead: tended to focus on in-service teacher training as a means of producing faster results at scale. ... If the PSTE [pre-service teacher education] sector is not involved, systems will be forced to engage in intensive, continuous rounds of professional development to realign the knowledge and skills of new teachers to school practices (Zuilkowski, Sowa, Ralaingita, and Piper, 2021: 5). Two messages are clear. First, reforming the school or TVET curriculum is pointless without a concomitant focus on ensuring that teachers have the expertise to deliver it. Second, capacitating teachers cannot be done through in-service education alone. Important as on-going professional development is, subject knowledge and pedagogic content knowledge (PCK) cannot be adequately addressed through a few workshops but need extended study during pre-service education.

A second priority which Covid has brought to the fore is the importance of digital education, which in the last two years has grown exponentially in schools serving the middle classes but has gained little traction in schools serving the poor. This situation further exacerbates existing inequalities. Should we share the optimism of the ADEA report (Association for the Development of Education in Africa, 2020) which recommends that states pay attention to the opportunities offered by technology for addressing 'learning poverty' and narrowing inequalities? Or should we continue to be wary of putting our faith in the promises of technology, as cautioned by the OECD:

...to reduce inequities in the ability to benefit from digital tools, countries need to improve equity in education first. Ensuring that every child attains a baseline level of proficiency in reading and mathematics will do more to create equal opportunities in a digital world than can be achieved by expanding or subsidising access to high tech devices and services. In the end technology can amplify great teaching, but great technology cannot replace poor teaching. (17)

Research is urgently needed to resolve the present impasse regarding digital education.

Policy-makers are naturally drawn to curriculum reform, which sets new goals for an improved delivery system. At the surface level, this is relatively easy to do, and results in a document that is officially endorsed and distributed. But if the development of a new curriculum, for whatever sub-sector of the education system, is not accompanied by an assessment of teacher capacity, followed by a systematic program to prepare teachers for the new curriculum, all that is likely to be achieved is destabilisation of the system, frustration and disappointment. Curriculum reform is not a quick-fix, but requires systemic reform, appropriate resourcing, analysis and monitoring, and policy continuity over a period of decades. In all of this, we cannot forget the unique role of the learner as both beneficiary of the curriculum, and importantly, having the agency and the right to their own cultural identity (Nsamenang and Tchombe, 2011).



3. MAPPING STUDY FINDINGS

Key points

- *Curriculum policy and governance:* across all three sectors, the predominant legal basis of the curriculum was a national policy; the vast majority of curricula, was approved in the last decade; the majority of respondents reported that experts are consistently involved in national curriculum development processes.
- *Curriculum and qualifications frameworks:* 67% of respondents reported that there is regular and close cooperation between curriculum authorities and national qualifications or quality assurance agencies; 17% of respondents indicated that there was awareness, but no substantial relationship, between curriculum authorities and other agencies.
- *Curriculum approaches:* the main approach used by countries for curriculum formulation is a competency-based approach; 75% reported that vertical progression is conceptualised by using taxonomies; the majority of respondents indicated that TVET programmes are structured as pre-vocational programmes with no apprenticeship.
- *Curriculum monitoring and evaluation:* quality assurance of curriculum delivery did not appear to be the exclusive domain of any one particular entity, with responses fairly evenly distributed across the organisations, departments and entities listed.
- *Curriculum and assessment:* quarterly assessments were the most commonly reported national systemic assessments across all three education sub-sectors, followed by annual assessments; 37% reported participating in PASEC, 37% in SACMEQ; 56% of countries reported attempted improvements against regional and international standards in the TVET sector.
- *Curriculum reform:* Six countries reported that they are moving towards the adoption of a competency-based approach to the curriculum, while one country reported a shift from an objectives-based curriculum to a standards-based curriculum. Three countries reported promoting 21st century skills as well as digital literacy in their curriculums.
- *Curriculum innovation:* the top three themes were norms, values and culture (94%); education for wider universal values supporting mobility (87.5%); and harmonisation (62.5%); the top 21st century skills were creativity (94%), critical thinking (87.5%), and active learning (87.5%), and digital skills (81%).
- *Financing curriculum innovation:* curriculum innovation in the schooling sector is almost exclusively supported by public funds, except in one country where the financing of school level curriculum innovation is left to the private sector.
- *Impact of Covid-19 on curriculum delivery:* the greatest impact was a reduction in curriculum coverage, reported by 68.7% of countries; for 50% of countries, the curriculum was re-focussed to cover core subjects, including basic numeracy and literacy; 50% of countries reported that Covid-19 has resulted in a review of the curriculum; 87.5% reported that the predominant method for curriculum recovery was using online systems; 75% of countries reported using extra teaching time to catch-up; 68.7% of countries reported a reduction of holiday periods to ensure catch up of the curriculum.
- *Qualified and competent teachers:* the overwhelming majority of respondents were not familiar with ISCED; the majority of respondents for all sectors indicated a 2-year qualification duration; the average duration of teacher practice during teacher training programmes is between 3-6, or 12-16 weeks; 14 schooling sector respondents said that teacher professionalisation is guided by professional standards to a comprehensive extent, while another six said that there was partial existence of professional standards guiding professionalisation.





- *Curriculum and African Union policy instruments:* the highest number of respondents were not aware of any of the three AU policies or instruments, while the fewest number of respondents indicated that the policies were comprehensively taken into account in related national policy.

3.1 Country statistics

3.1.1 Early Childhood Care Development and Education (ECCDE)

Survey respondents were asked to provide information on Early Childhood Care Development and Education (ECCDE) country statistics. This included data on the minimum and maximum age for ECCDE, and the net enrolment ratio in the country's ECCDE subsector.

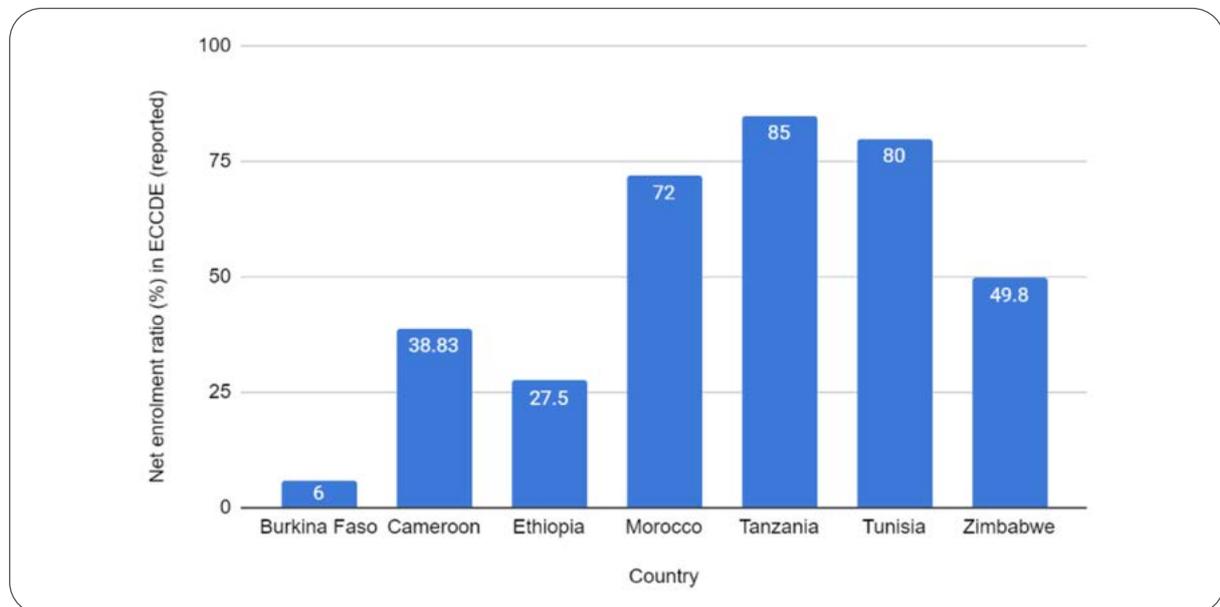


Figure 18: Number of respondents indicating age ranges of ECCDE

Encouragingly, 7 out of 8 respondents reported that the minimum age for the formal ECCDE system in their countries was between 3 and 4 years. Studies have indicated that high-quality community-based early child care and education can have sustained positive impacts on the child's educational success throughout their lives (Bustamante et al., 2021), therefore investing in early childhood education can improve learning outcomes in the long term. In terms of the net ECCDE enrolment rate, 7 countries responded. Only two countries reported a net enrolment rate above 75%, while a further 4 countries reported enrolment rates of 50% or less. In general, there is scant public data available on ECCDE enrolment rates.



SCHOOL CURRICULUM MAPPING REPORT

Mapping curriculum frameworks and practices in Africa: creating baseline evidence

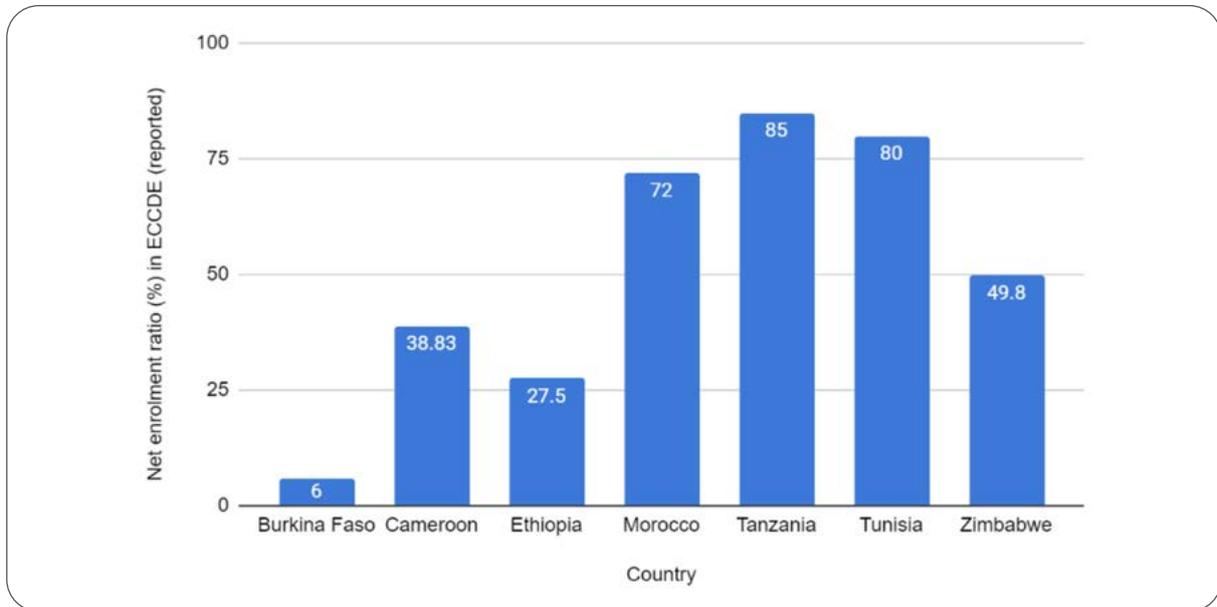


Figure 19: Reported net enrolment ratio in ECCDE

3.1.2 Schooling

Survey respondents were asked to report on the approximate number of learners enrolled in primary and secondary schools in their countries, using their most recent data. In all instances, survey respondents reported a greater number of learners enrolled in primary schools than secondary schools. Encouragingly, the majority of responses, particularly for primary education, compare reasonably well to enrolment numbers reported in the most recent World Bank data. Secondary school data for the selected countries ranges from 2007 - 2020 with the majority of indicator data at least 5 years out of date.

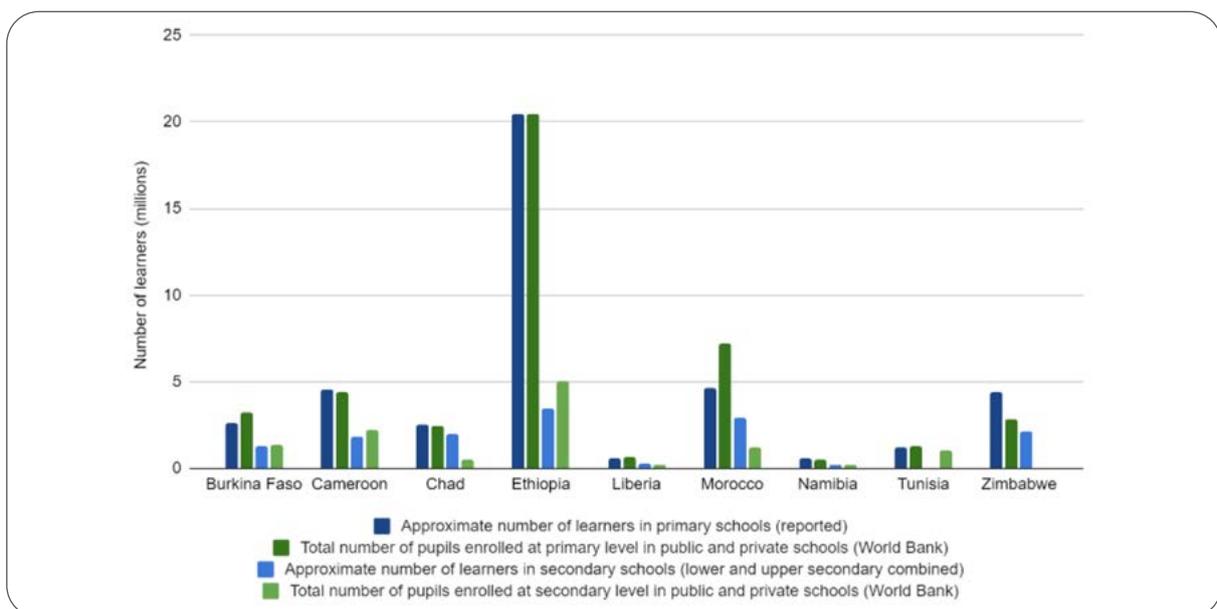


Figure 20: Approximate number of learners in primary and secondary schools



3.1.3 Technical and Vocational Education and Training

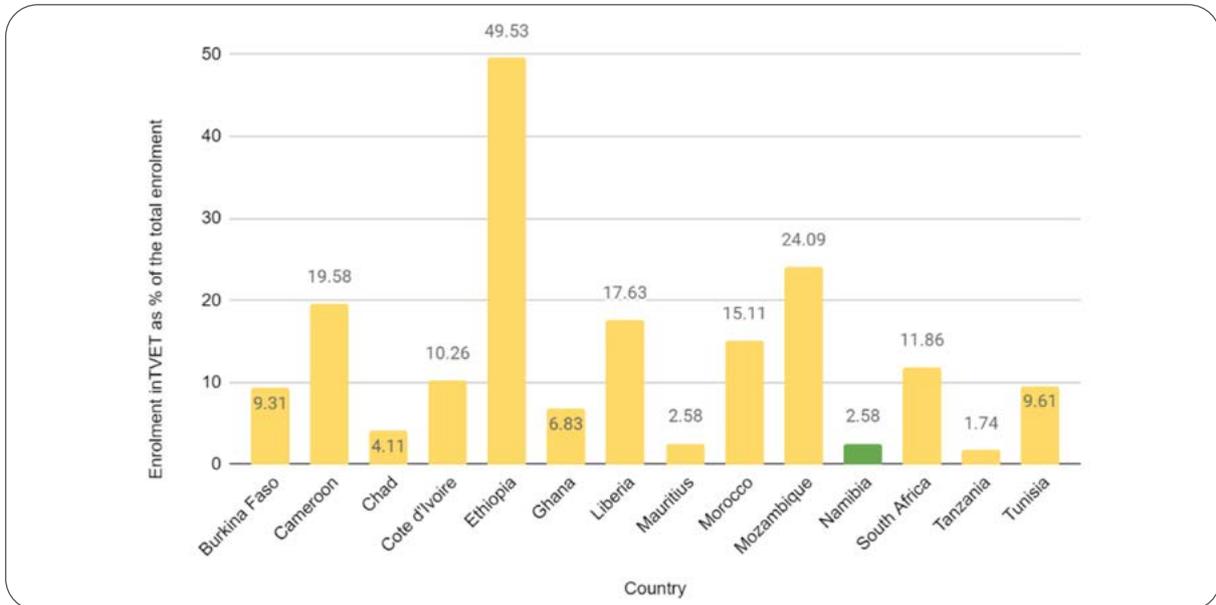


Figure 21: Proportion of youth enrolled in TVET as % of the total enrolment in secondary education

[All countries calculated using UIS data, except Namibia which was calculated based on averaged survey responses]

Respondents were asked to provide an estimate of the youth proportion (%) of both general education/post-secondary non-tertiary education going-age that attended public and private TVET institutions in their country. Responses ranged from percentages to numbers of enrolments and could not be compared. To fill this gap, the most recently available data was retrieved from UNESCO Institute for Statistics (UIS) depicted in the graph above. All countries use data from the UIS, except for Namibia where no UIS data was available, and where two survey respondents provided inputs.

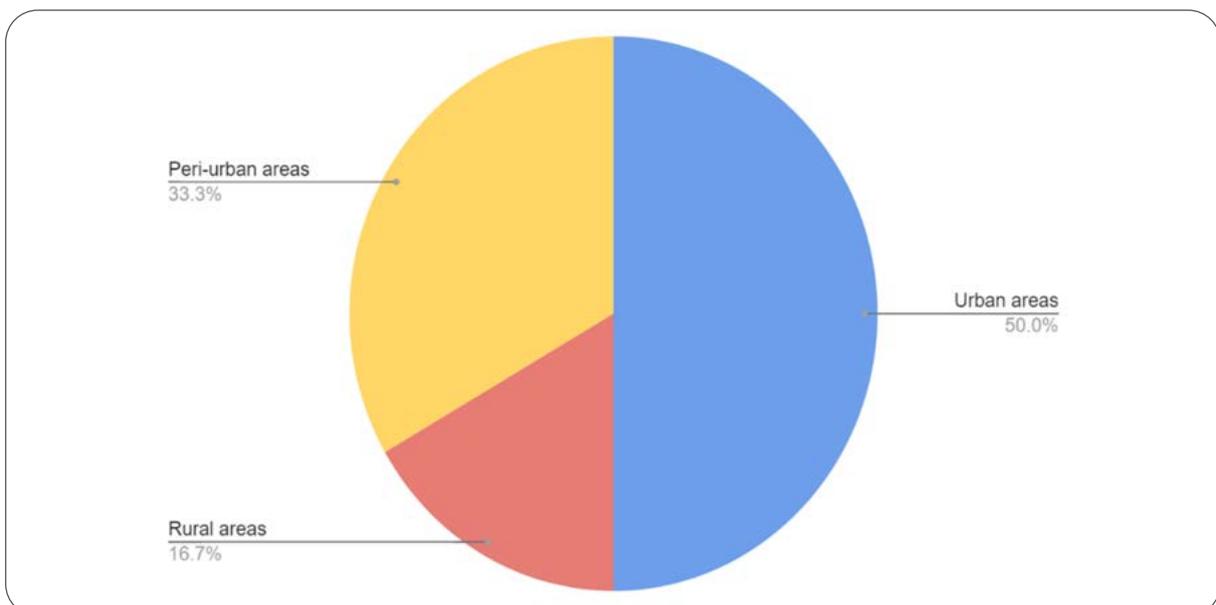


Figure 22: Proportion of TVET youth residing in urban, rural and peri-urban areas



SCHOOL CURRICULUM MAPPING REPORT

Mapping curriculum frameworks and practices in Africa: creating baseline evidence

Respondents from 6 countries indicated that 50% of youth enrolled in TVET institutions in their countries were located in urban areas. 33% were located in peri-urban areas, and the remaining 16% in rural areas.

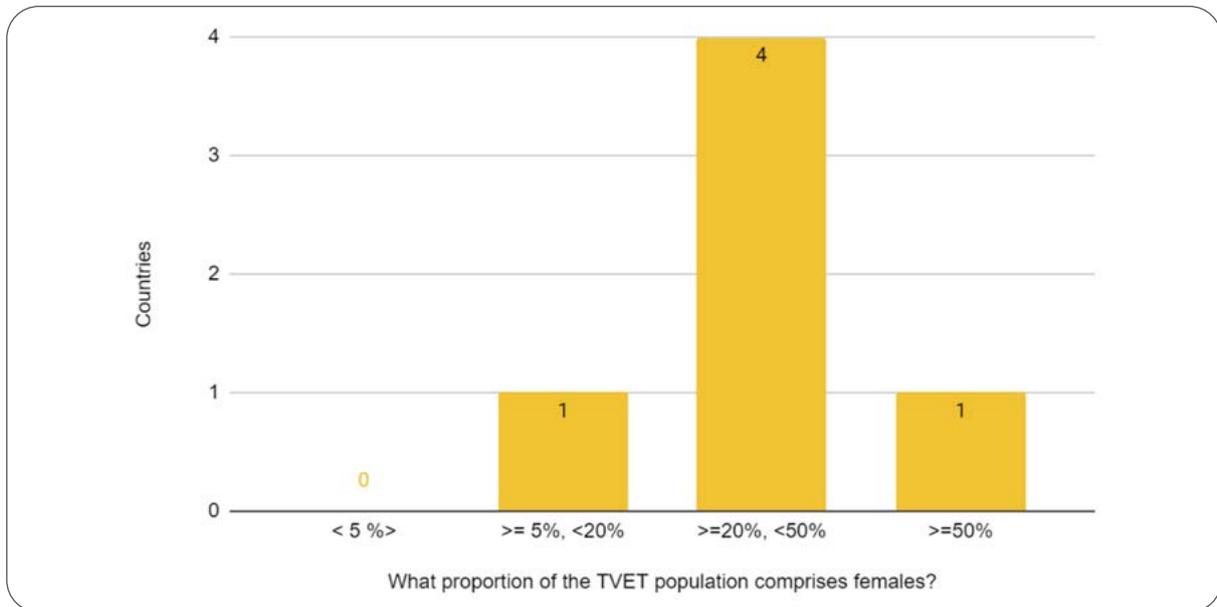


Figure 23: Proportion of the TVET population that comprises females

Respondents from 6 countries provided data on the proportion of female TVET students. The majority of respondents (67%) indicated that female learners made up between 20% and 50% of the TVET population in their countries.

Survey respondents defined workplace-based training as a “hands-on learning strategy that provides learners with real-life work experiences where they can apply academic and technical skills (learning experiences) in the real world of work as they develop their employability.” It was also defined as “practical learning in a production unit where the learner is immersed”, as “induction” or “on-site training on a specific skill” and as “placement for in-situ working experience.” Another definition provided was “alternate/theoretical training at the institution and in an economic enterprise.” For some respondents, workplace-based training constitutes a “professional framework that facilitates the acquisition of competences in the learner and facilitates his integration into the professional world.” It was referred to as “planned learning outcomes derived from the experience of performing a work role or function in a real work environment.” It was also defined as “in-service training” and “continuous professional development...which enables teachers and educational personnel to provide quality training.”





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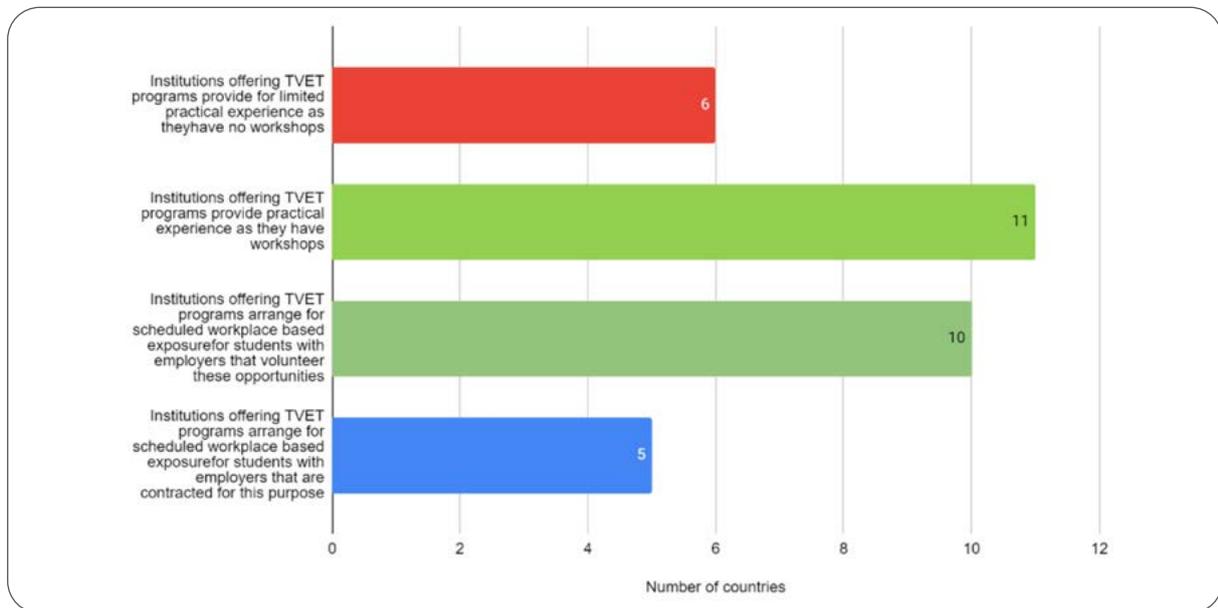


Figure 24: Practical and workplace experience opportunities offered in TVET programmes

This question explored the extent to which students enrolled in TVET programs have the opportunity for practical and workplace experience. Respondents from 14 countries answered this question and were asked to select all responses that were appropriate. 6 respondents (43%) reported that TVET institutions in their countries only offer limited practical experience as they do not have workshops. The majority of respondents (n=11) (78%) reported that TVET institutions do provide for practical experience through workshops. 10 respondents indicated that employers offer opportunities for scheduled workplace-based exposure for students. 5 respondents reported that employers are specifically contracted for the purpose of scheduled workplace-based exposure for students.

Based on the data, many countries have varying degrees of access to WPBL at TVETs, with better resourced TVETs able to offer workplace experience, and learners at less resourced institutions going without. It is encouraging that the majority of respondents' countries offer either comprehensive or partial practical experience to TVET learners, but it is clear that access is not necessarily universal, or equitable.

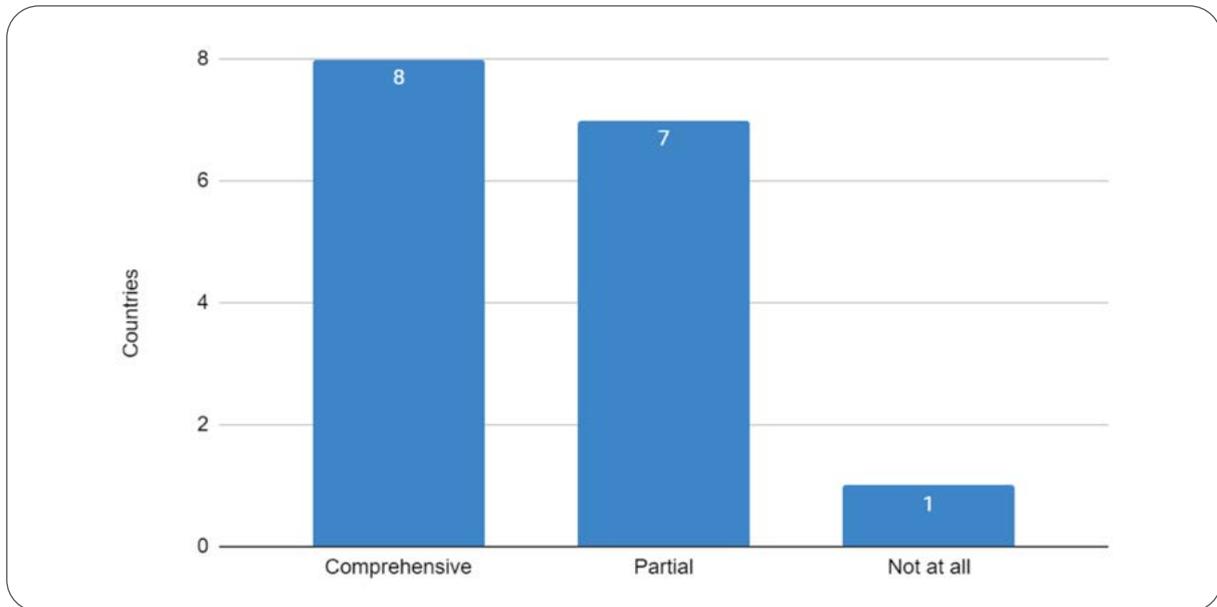


Figure 25: Allowance in the TVET curriculum for dual sources of learning

Respondents from 15 countries responded to this question. 8 countries reported that the TVET curriculum allows for comprehensive dual sources of learning (theoretical & workplace-based learning). 7 countries reported that the curriculum allows only partial dual sources of learning. This indicates some disagreement between respondents as to how comprehensively the curriculum allows for dual sources of learning. One respondent indicated that their TVET curriculum makes no allowance for dual learning.

However, drawing from Figure 25 above, it is arguable that while provision is made for workplace-based training in TVET curriculum, the ability of training providers to implement practical components varies widely and this indicates weaknesses in national TVET systems. Both practical and theoretical knowledge are necessary for many learners to graduate, and the Mastercard Foundation's Secondary Education in Africa report (2020:67) notes that "many technical subjects lack up-to-date equipment to provide students with the hands-on and practical training" required. The inability to secure adequate, quality, practical training opportunities for TVET students is regularly cited in the literature (Badenhorst and Rachere, 2018; Lolwana, 2015; Field et al. 2014).

3.2 Curriculum policy and governance

When asked about the legal basis for the curriculum in their countries, 25 responses were received. In the 16 respondent countries, the predominant legal basis of the curriculum across the three subsectors was noted to be a national policy, with fewer respondents stating that it was an education strategic plan. Respondents from 5 countries (31.25%) reported having both national policy and strategic plans in place, while the majority of respondents (62.5%) reported only national policy.



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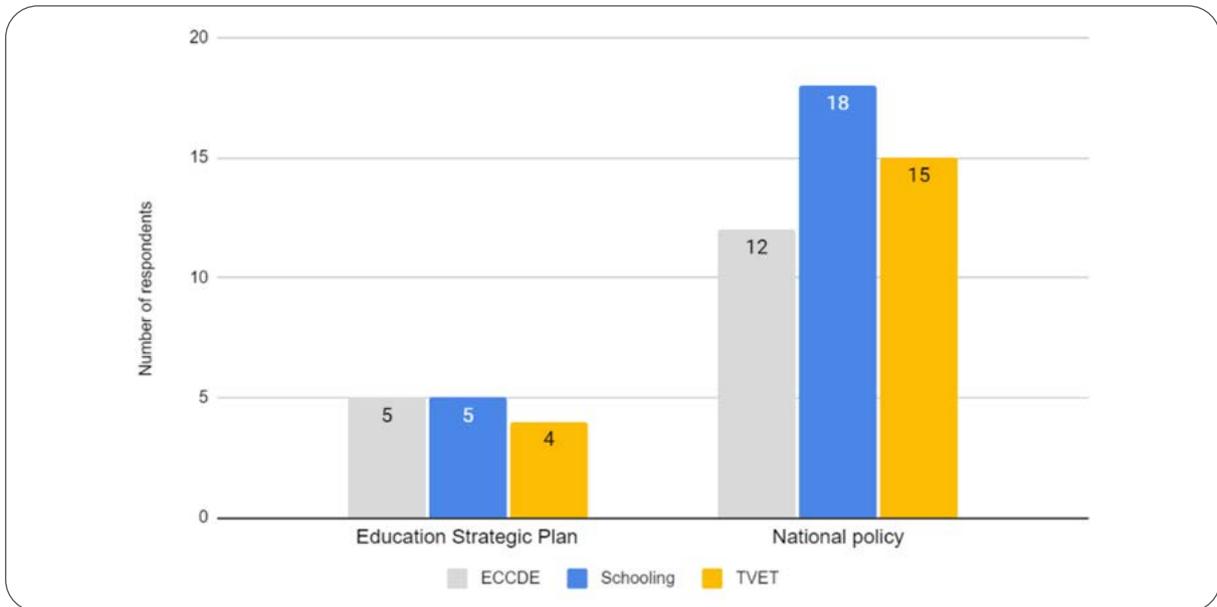


Figure 26: Reported legal basis of curriculum by total responses

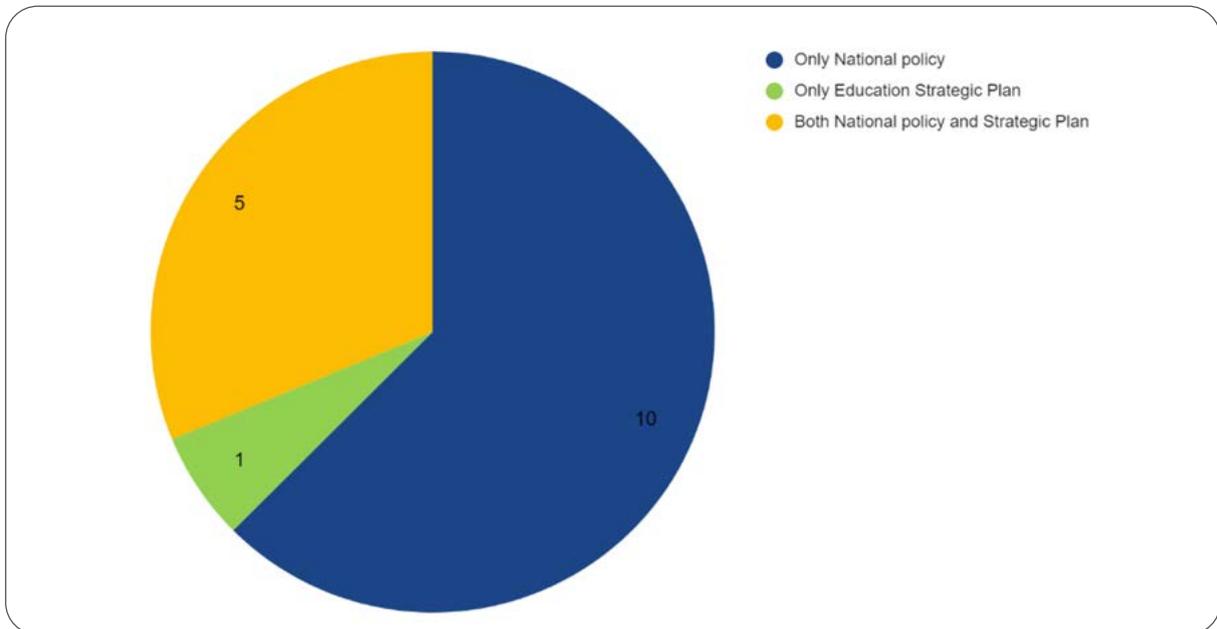


Figure 27: Reported legal basis of curriculum by type and country



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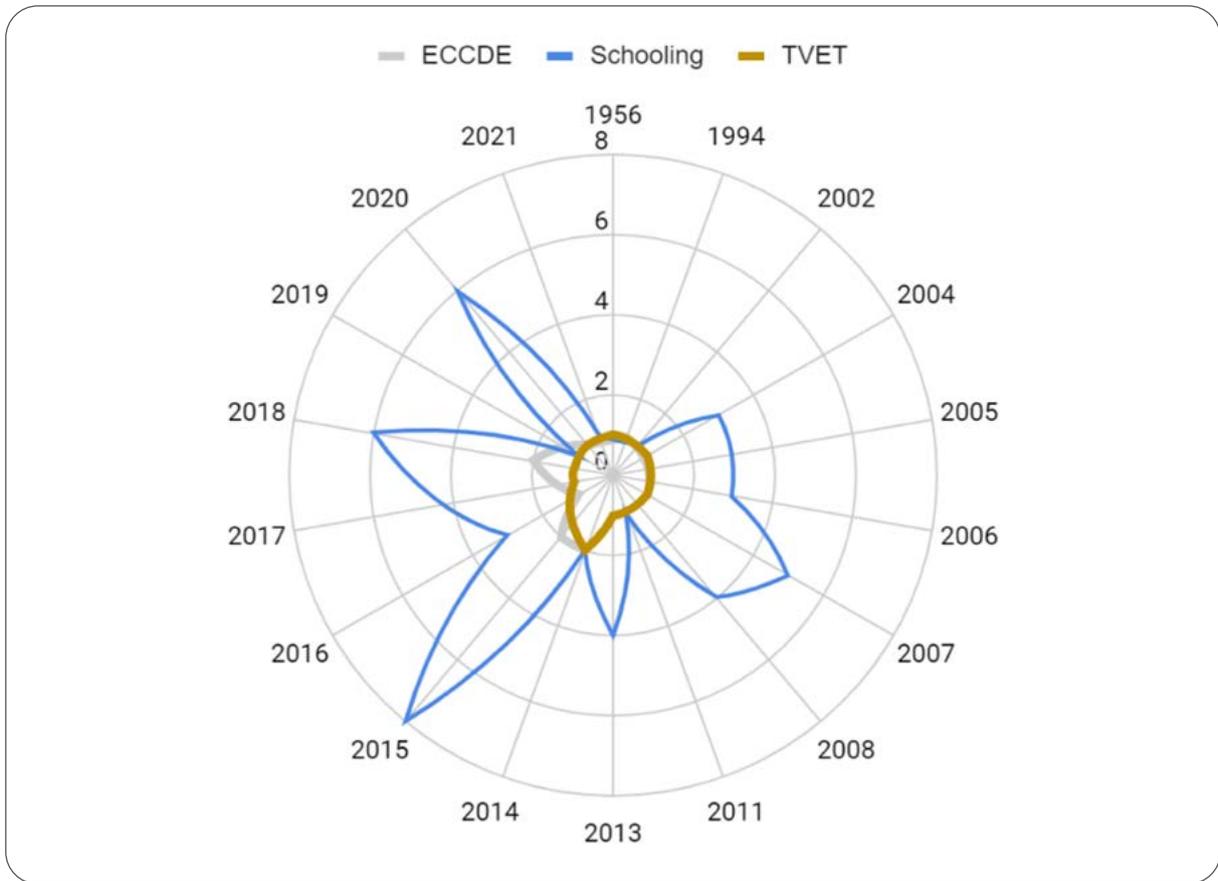


Figure 28: Year the current national curriculum policy was approved

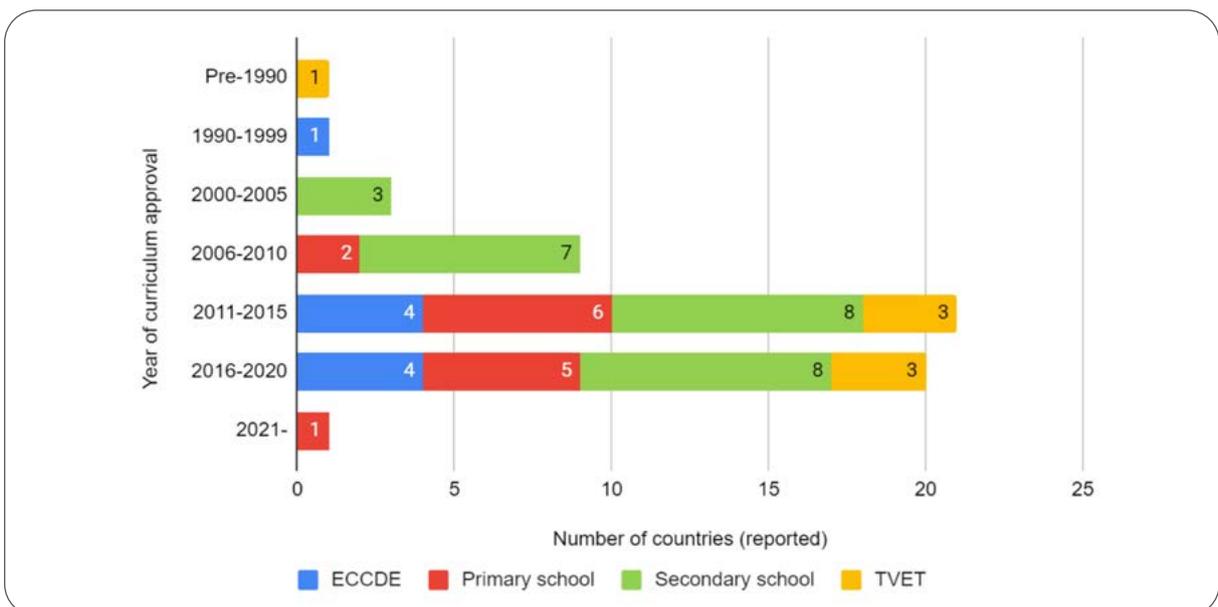


Figure 29: Year the current national curriculum policy was approved



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Based on survey responses from 15 countries, the vast majority (75%) indicate that their current curriculum, across all three sectors, was approved in the last decade. Interestingly, between 2018 and 2021, nineteen current curriculum policies were approved across the ECCDE, schooling and TVET sectors in the respondent countries.

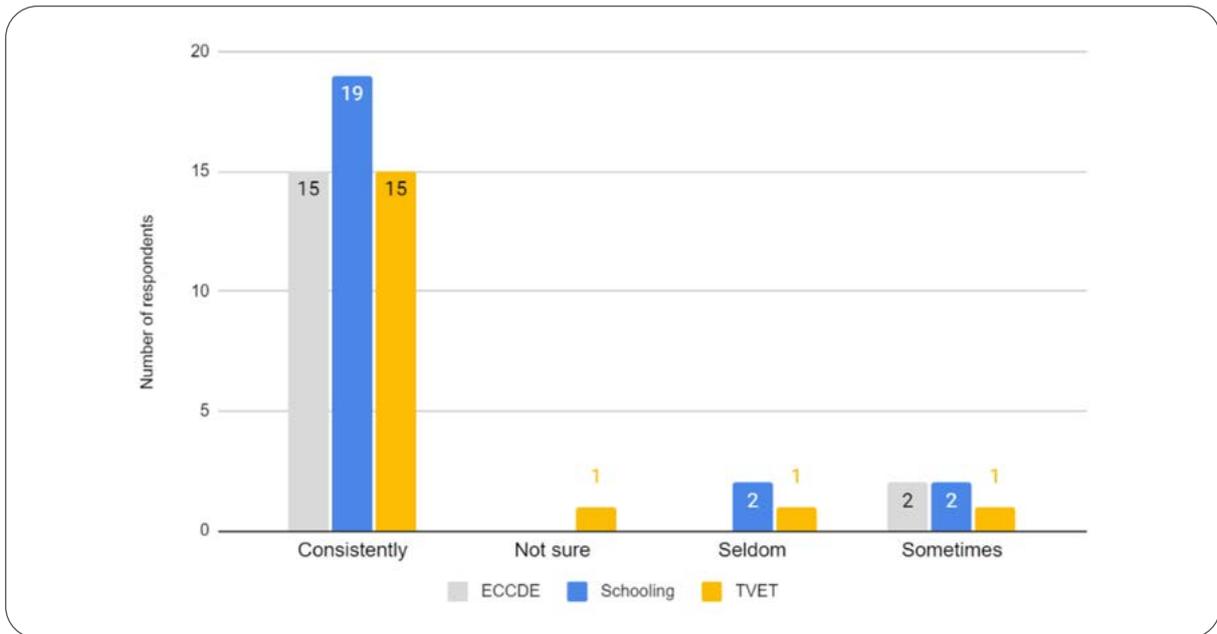


Figure 30: Involvement of experts in national curriculum development processes

Across all 16 countries, the majority of respondents (84%) reported that experts are consistently involved in national curriculum development processes, across all three sectors.

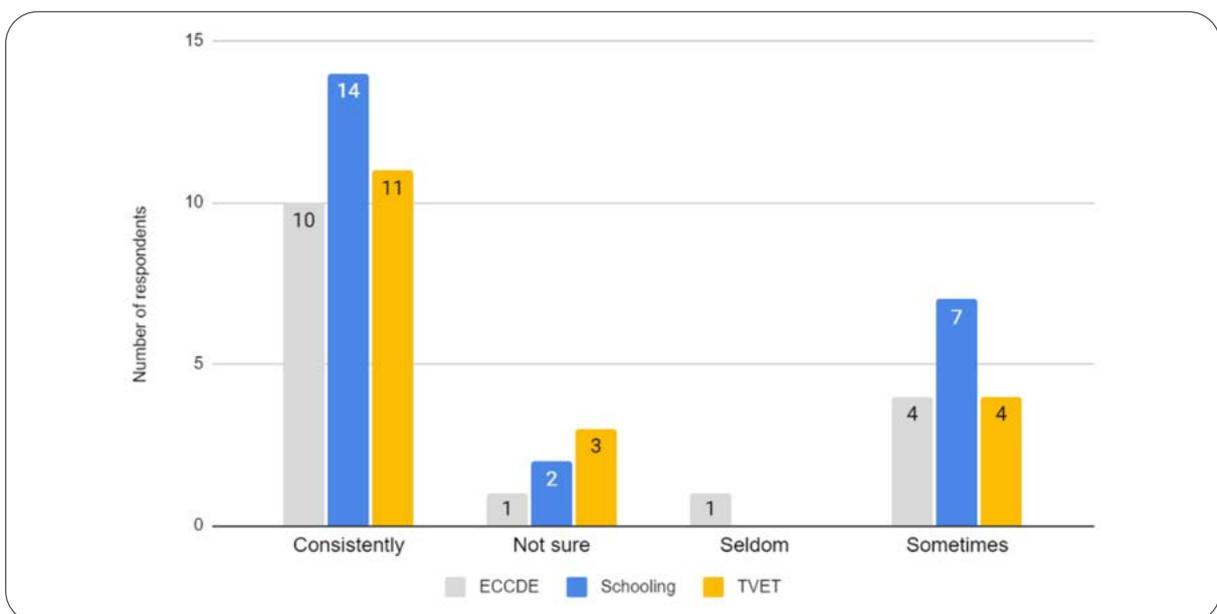


Figure 31: Involvement of stakeholders in national curriculum development processes



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When asked to comment on the involvement of other stakeholders (unions, private sector, civil society, etc.) in national curriculum development processes, the majority of respondents (61%) reported that stakeholders are consistently involved, across all three sectors. Seven respondents stated that these stakeholders are sometimes involved in the national schooling curriculum development process, and four respondents each reported the same for the ECCDE and TVET sectors.

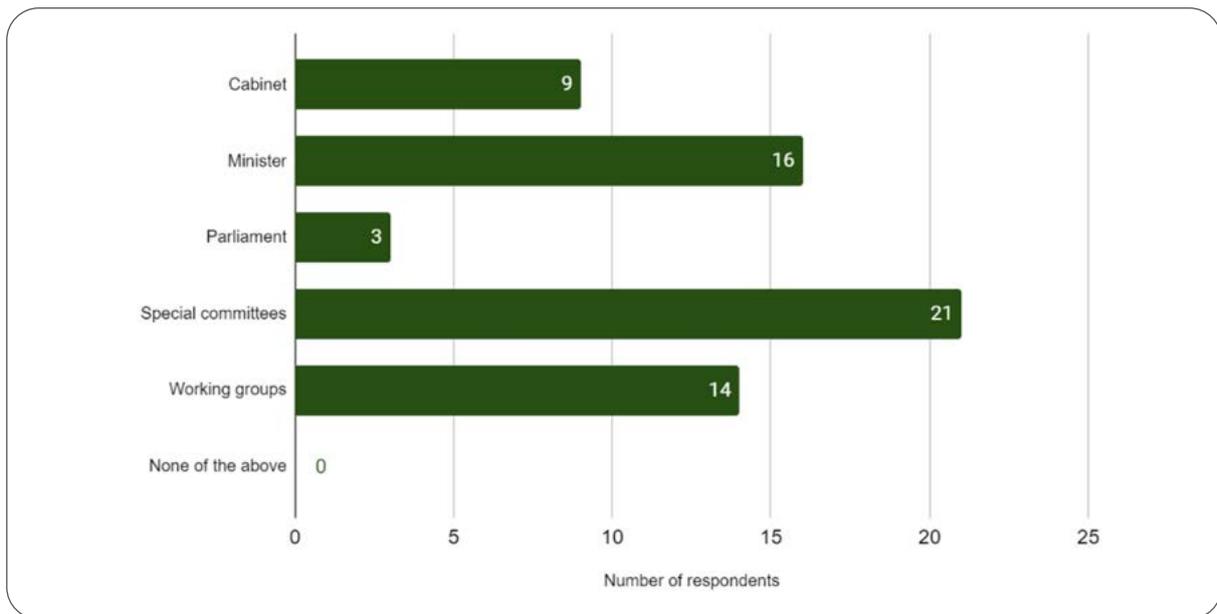


Figure 32: Curriculum approval process

When asked to comment on the curriculum approval process in their country, the majority of respondents (n=21) (33%) stated that special committees are involved in the curriculum approval process, whilst 16 respondents (25%) also reported that curriculum approval is a task undertaken by the Minister. 14 respondents (22%) stated that it is working groups that oversee the curriculum approval process.





3.3 Curriculum and qualifications frameworks

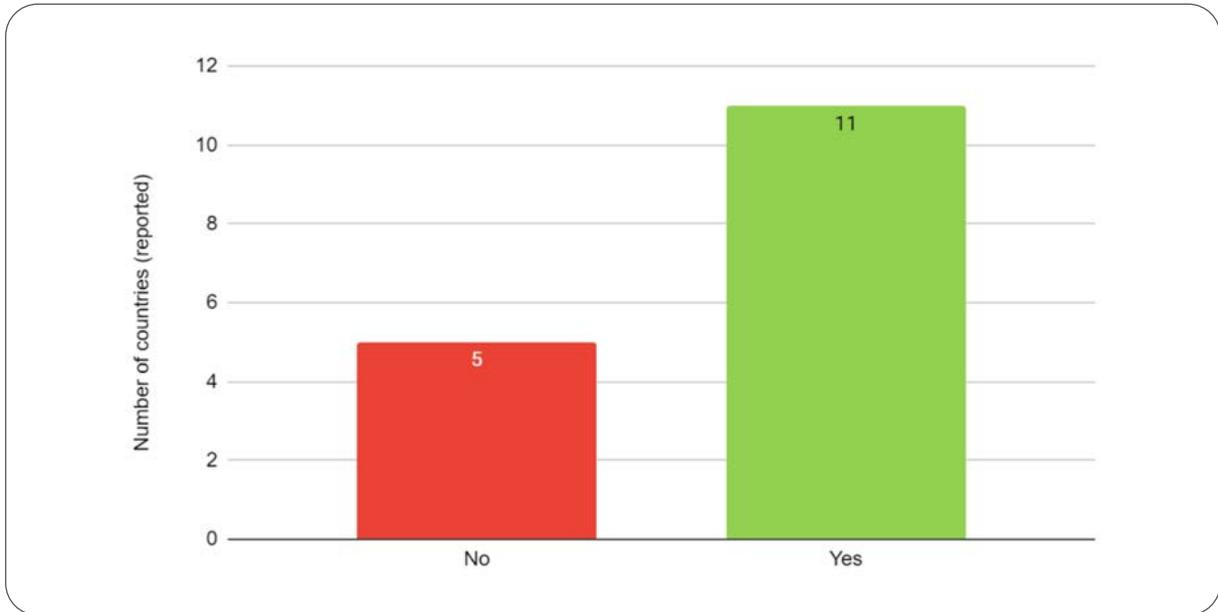


Figure 33: Existence of a qualifications framework per country

Based on 25 responses received from 16 countries, the majority of respondents (69%) reported positively with regards to the existence of a national qualifications framework (NQF) in their countries. Considering the broader ACQF processes, this is a positive finding as ACQF processes can build on and integrate into existing regional and country-level foundations.

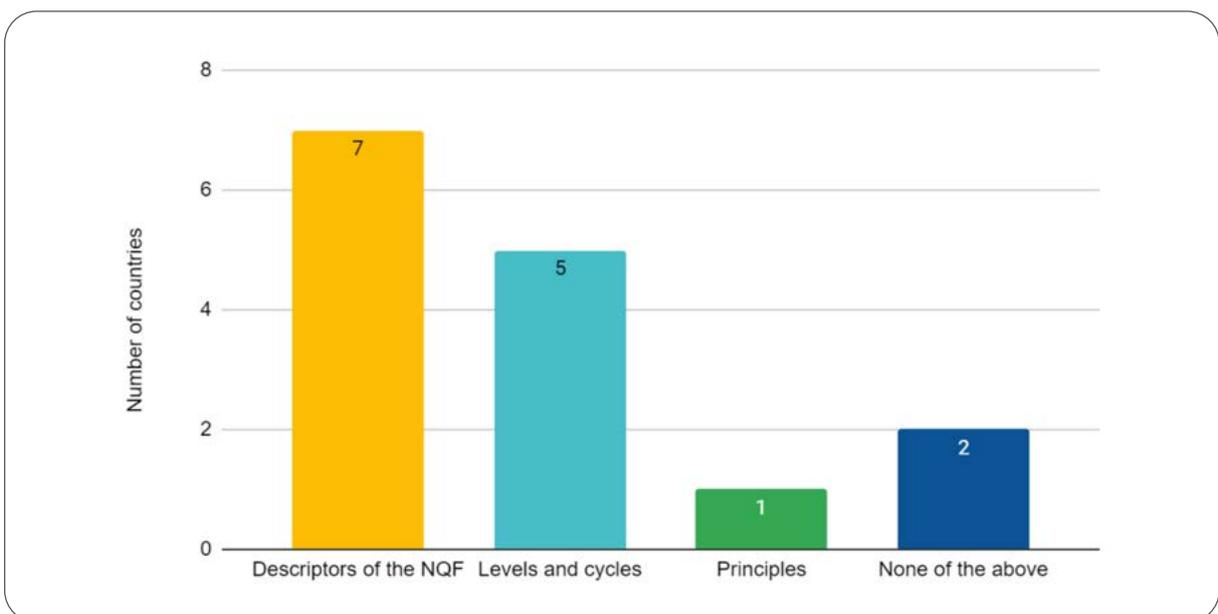


Figure 34: Curricula alignment with qualification framework



On a country level, out of 15 countries, the majority of respondents (47%) reported that curricula align with NQF descriptors, a third (33%) of respondents indicated that curricula align with levels and cycles in the NQF, while 1 country indicated that their curricula align with NQF principles. For one country which does not have a comprehensive NQF in place, conflicting feedback was received from two respondents, one indicating no alignment, and the other indicating alignment against levels and cycles.

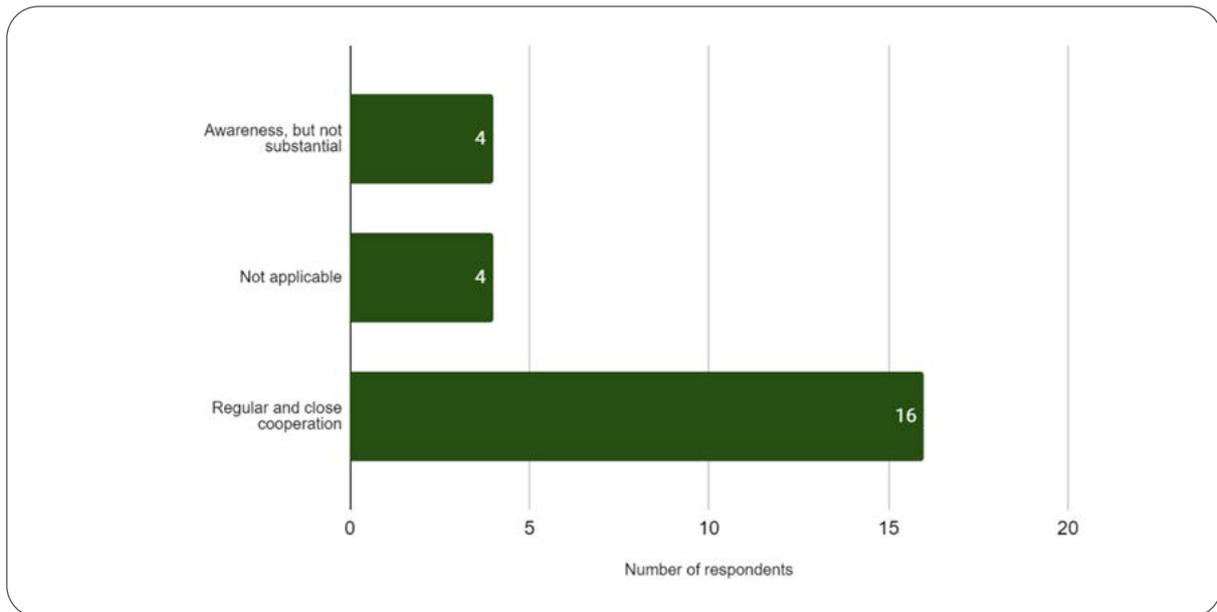


Figure 35: Relationship between curriculum authorities & national qualifications/quality assurance agencies

Based on 24 responses from 14 different countries, 67% of respondents reported that there is regular and close cooperation between curriculum authorities and national qualifications or quality assurance agencies. 17% of respondents indicated that there was awareness, but no substantial relationship between curriculum authorities and other agencies. Overall, this could indicate that there is good systemic coordination and cooperation between the various curriculum and quality assurance entities operating in the education sectors in the majority of countries surveyed.





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3.4 Curriculum approaches

3.4.1 Structure and progression within curriculum

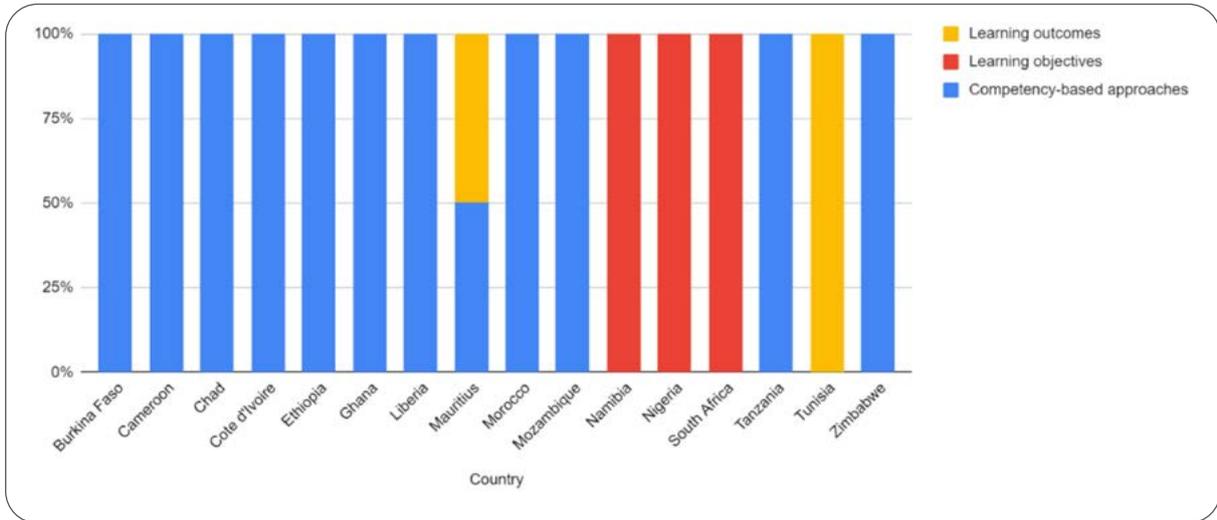


Figure 36: Approaches used during curriculum formulation

Based on 25 responses from 16 countries, the main approach used by countries for curriculum formulation is a competency-based approach. Three respondents reported that a learning objectives approach was used during curriculum formulation and another two reported that learning outcomes are used for this process. One country indicated the use of both learning outcomes and competency-based approaches.

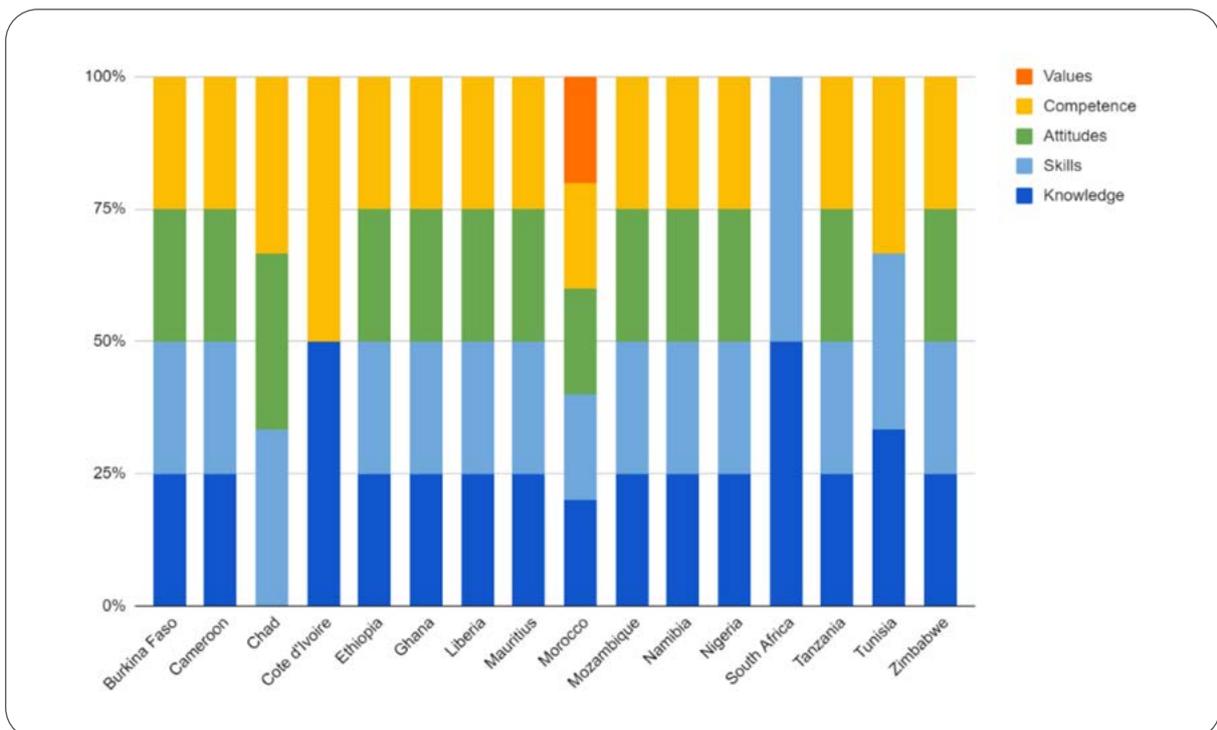


Figure 37: Domains used in the curriculum



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16 countries provided information on the three main domains used in the curriculum. Knowledge (15), skills (15) and competence (15) were the most reported domains, followed by attitudes (12). The use of values in the curriculum was only reported by one country.

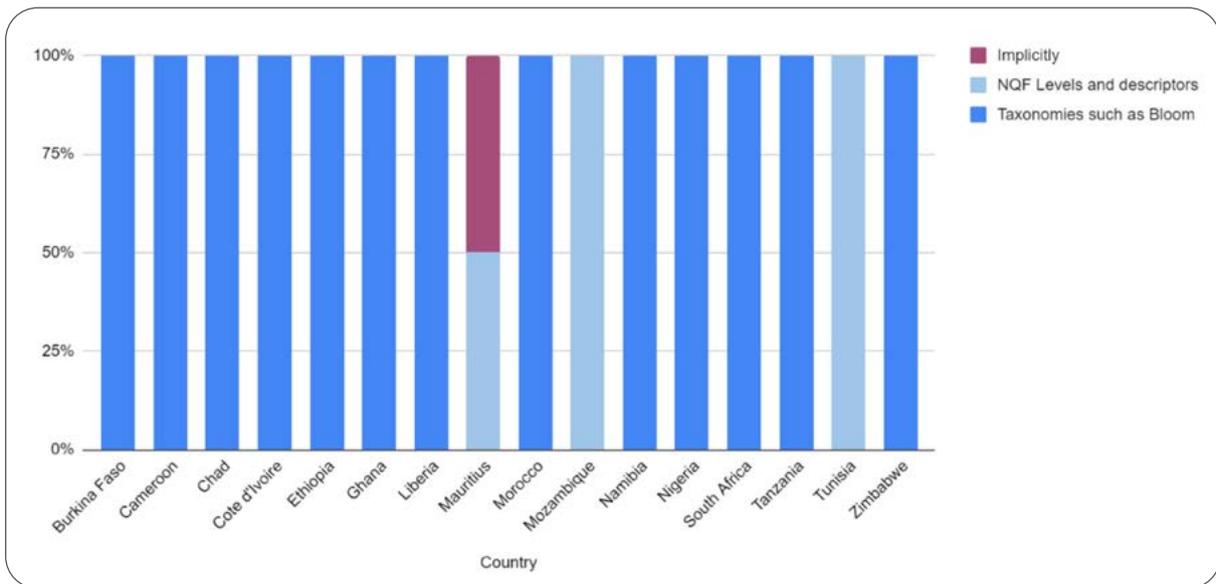


Figure 38: Conceptualisation of vertical progression within the curriculum

Most respondents (75%) reported that vertical progression is conceptualised by using taxonomies, such as Bloom's. Fewer respondents (21%) reported that vertical progression is actualised using NQF levels and descriptors. In addition to using NQF level and descriptors, one country reported that vertical progression was conceptualised implicitly.

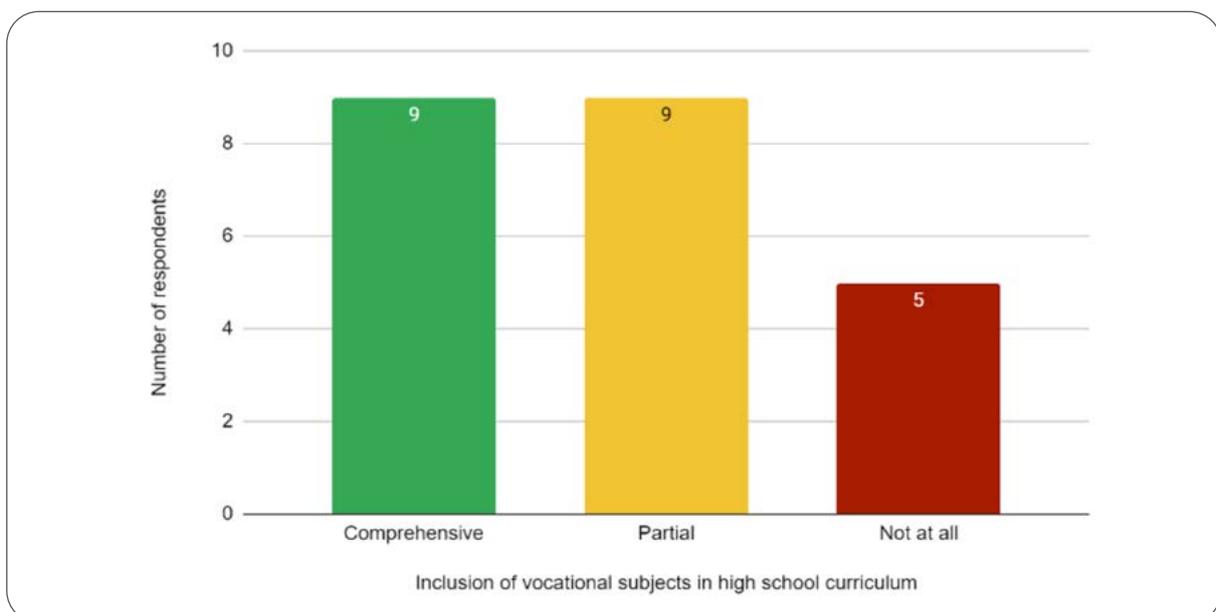


Figure 39: Vocational subjects in high school curriculum

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23 survey responses were generated from 16 countries. Nine respondents reported only partial inclusion of vocational subjects (such as Tourism, Hairdressing, Marketing, and Typing) in the high school curriculum, while 5 reported that these types of subjects are not included in the curriculum at all. Nine respondents also indicated that there is comprehensive inclusion of vocational subjects in the high school curriculum. This indicates that stakeholders are in general disagreement about the extent to which vocational subjects are included in their countries' high school curriculum.

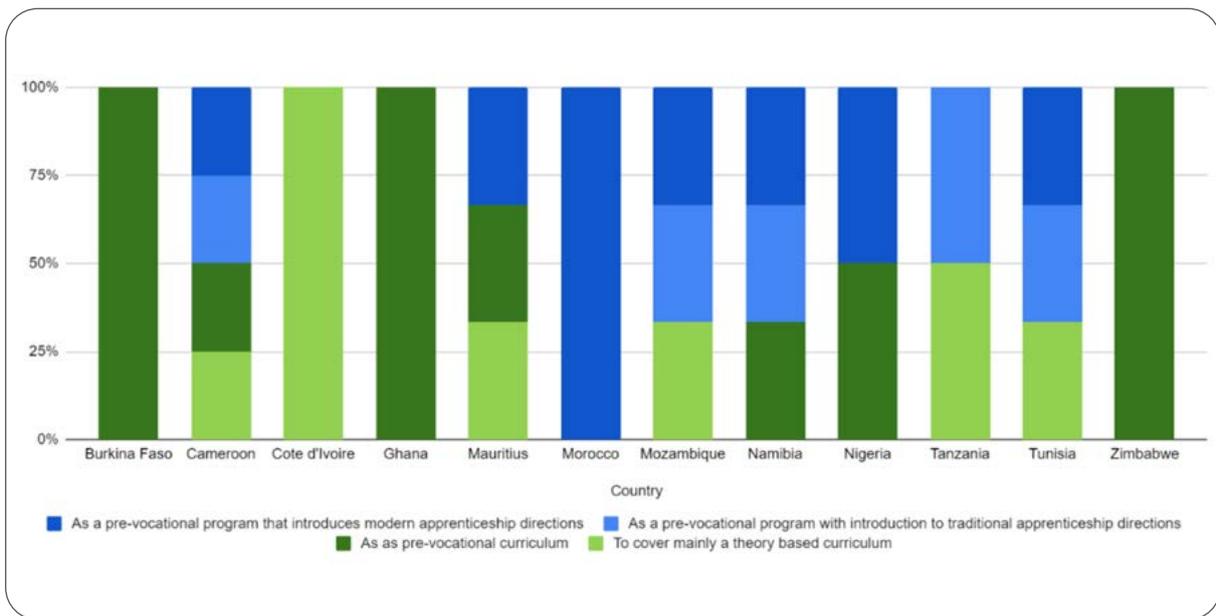


Figure 40: Structure of TVET programme

When asked about the structure of TVET programmes in their country, out of 12 countries the majority of respondents (83%) indicated that TVET programmes are structured as pre-vocational programmes. Of the 10 respondents who noted that there are pre-vocational TVET programmes in their countries with apprenticeships, 3 were traditional apprenticeships and 7 were modern apprenticeships. Respondents from three countries indicated that their TVET programme structure is mainly to cover a theory-based curriculum. Pre-vocational programmes are intended to prepare learners for further vocational training, and do not lead to a recognised vocational qualification, or certification. Modern apprenticeships typically involve a mixture of classroom-based learning and practical work experience, while traditional apprenticeships are considered informal, and are generally unstructured.



3.4.2 Articulation

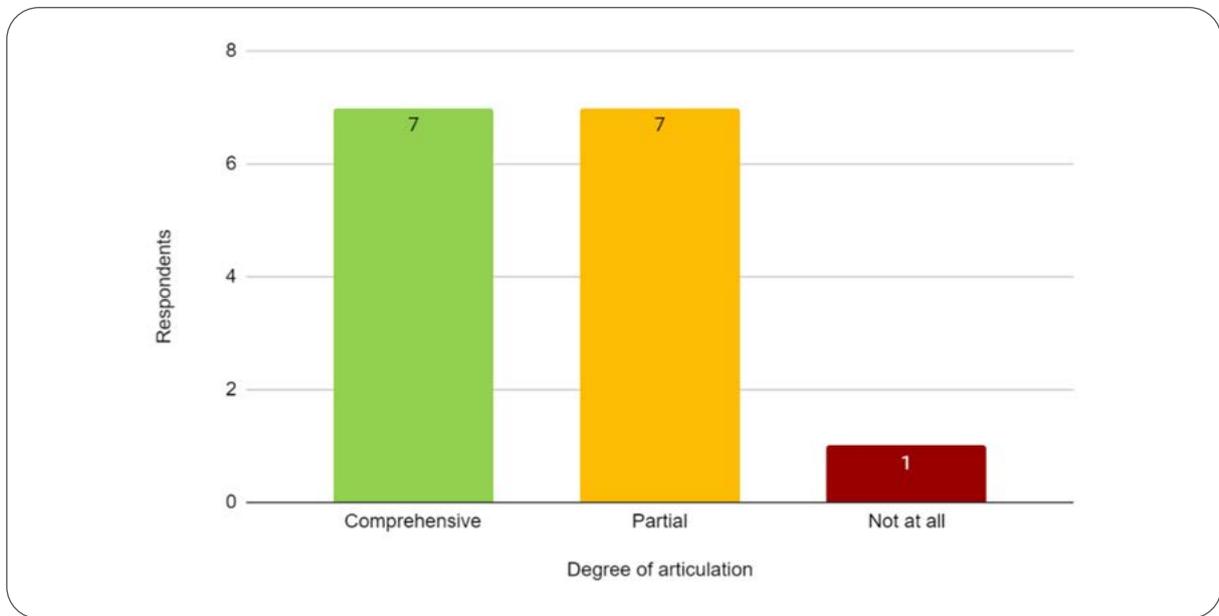


Figure 41: Extent to which the national curriculum framework provides for articulation between the TVET curriculum and post-school and higher education learning

15 respondents from 13 countries reported on the extent to which their national curriculum framework allows for articulation between the TVET curriculum and post-school and higher education learning.

7 respondents reported that their country's national curriculum framework allows for partial articulation between the TVET curriculum and post-school and higher education, while a further 7 respondents reported that the NQF allows for comprehensive articulation between the TVET system and the post-schooling sector. Only respondents from 1 country indicated that the national curriculum framework makes no allowance for articulation between TVET and post-school and higher education.

The responses were evenly distributed between comprehensive and partial allowances for articulation, indicating that work is still required in order to improve articulation in at least 50% of respondents' countries.





3.4.3 Alternative education approaches

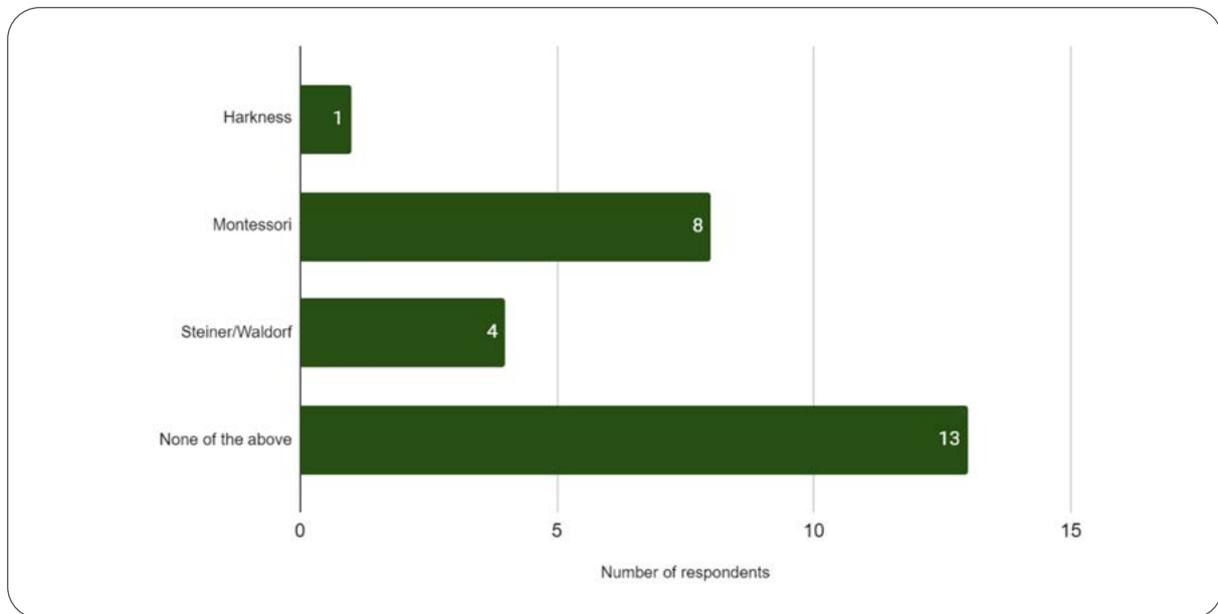


Figure 42: Impact of alternative education approaches on curriculum development

Thirteen respondents in total mentioned alternative education approaches⁵ such as Montessori (n=8), Steiner/Waldorf (n=4), and Harkness (n=1) that impact on curriculum development. Some survey respondents reported alternative education approaches that impact on curriculum development in African countries including blended learning; research-based learning; educational research; flexible curriculum; family education; distance learning; accelerated education programme; adult and non-formal education; nomadic education; international best practices; and experimentation with innovative approaches.

Other respondent reported approaches include “confessional schools follow the national curriculum but may run particular programmes related to their specificities” and Koranic school. Another approach was involving various stakeholders in curriculum review, benchmarking against other countries and “analysis of socio-professional situations and employment and identification of content, profiles, benchmarks of required skills.”

5. Montessori education promotes the development of ‘the whole child’, including intellectual, physical, emotional and social development, through self-directed learning, as opposed to a focus solely on teacher-led academic attainment (Marshall, 2017). Steiner/Waldorf is an educational philosophy “formulated in opposition to conventional German educational practices of the early 20th century” (Jewett, 2020) and distinguished by “a grounding in child development” where knowledge and learning content is determined by a child’s age (Ashley, 2009:213). The Harkness method is both a philosophy and a method, based on small group, student-driven roundtable discussions, rather than traditional teacher-centred learning (Williams, 2014).



3.5 Curriculum monitoring and evaluation

In order to support the implementation and monitoring of the curriculum, it is necessary to take stock of the leading institutions and key agencies; the role of social partners and other stakeholders; resources; indicators and mechanisms used to support implementation and monitoring.

3.5.1 Governance: curriculum development, implementation and quality assurance

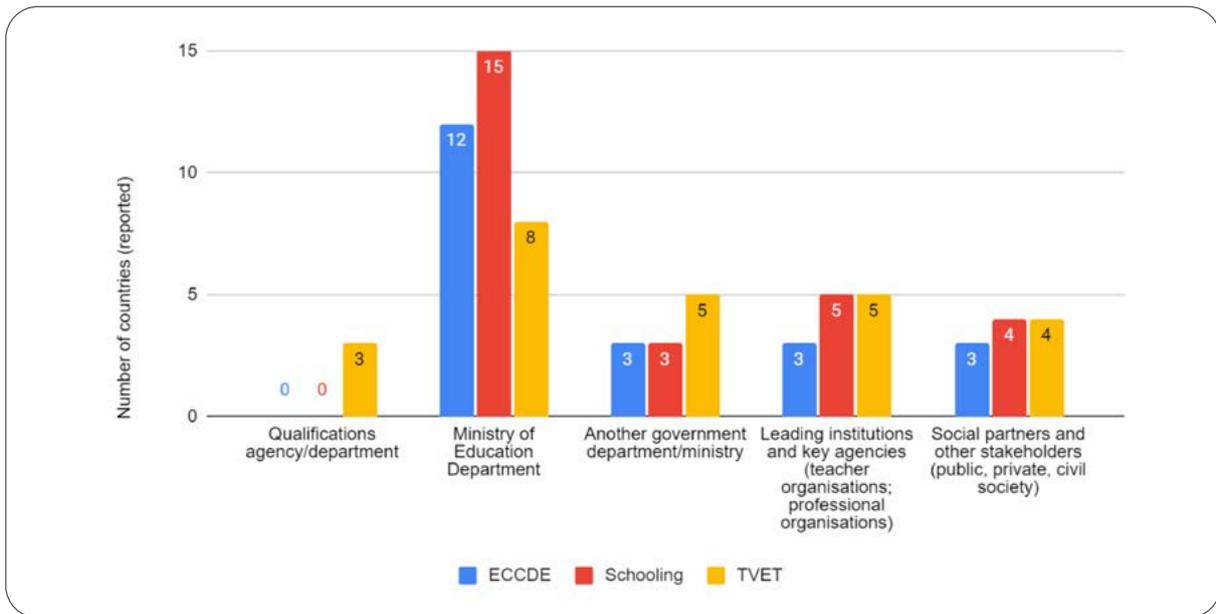


Figure 43: Responsible entity for curriculum development

As can be seen from the figure above, in all three subsectors, the Ministry of Education is the responsible entity for curriculum development in most countries. In addition to the Ministry of Education, responsibility appears to lie less frequently with other government agencies, leading institutions and social partners, but it indicates that there is a good mix of roleplayers operating in most countries' education sectors. The only notable exception is the absence of qualifications agencies or departments in non-TVET sectors.





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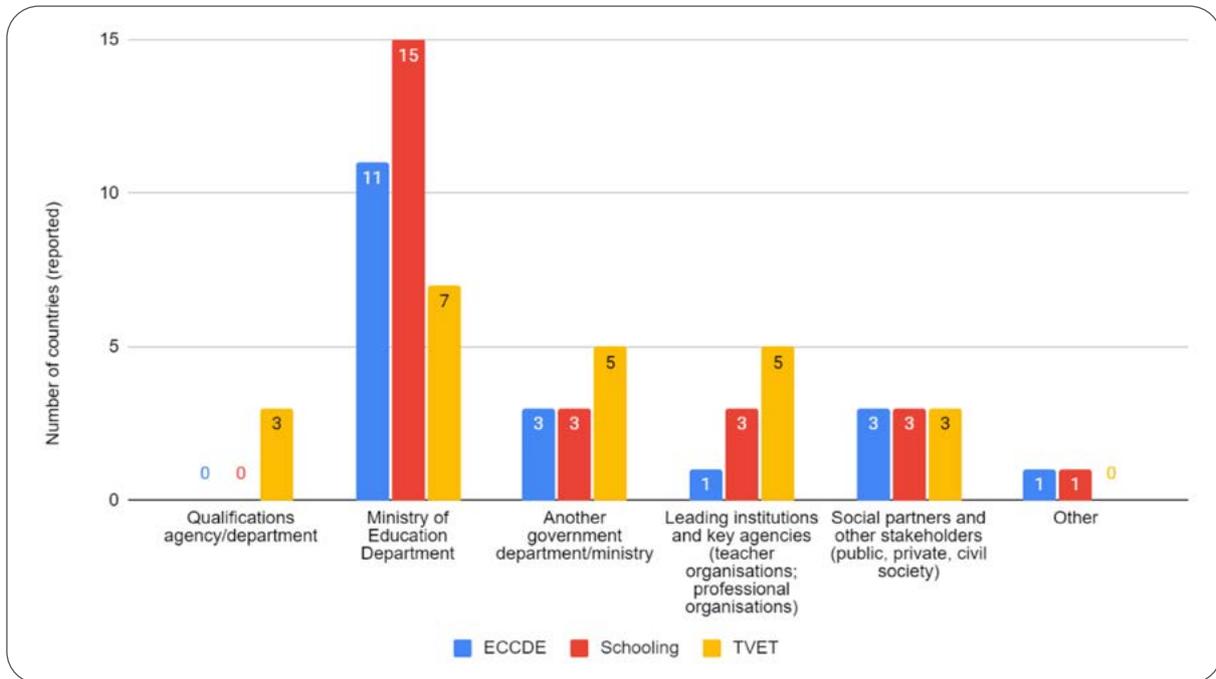


Figure 44: Responsible entity for curriculum implementation

Following a similar pattern, curriculum implementation in the ECCDE, schooling and TVET sectors rests predominantly with the Ministry of Education, while fewer countries report the involvement of other government agencies, institutions and social partners. In the TVET sector, as with curriculum development there appears to be a variety of responsible entities across countries. As with curriculum development, it is notable that countries only report the presence of a qualifications agency in the TVET sector.

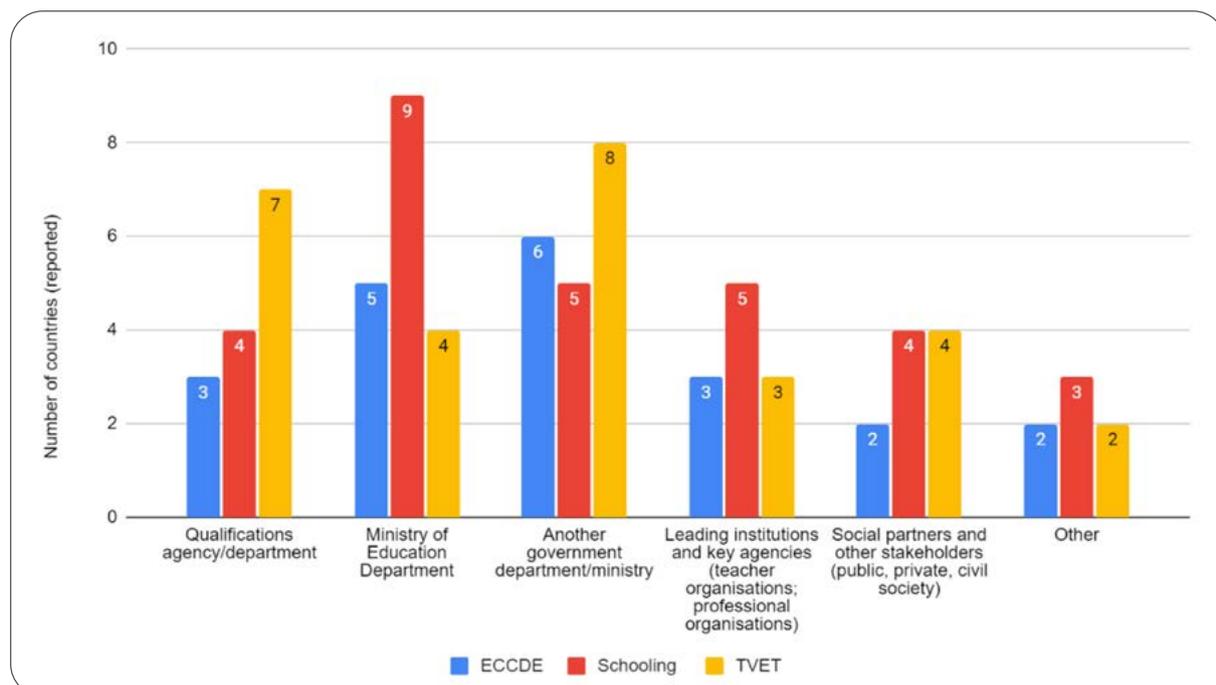


Figure 45: Responsible entity for quality assurance of curriculum delivery

From the responses received, quality assurance (QA) of curriculum delivery did not appear to be the exclusive domain of any one particular entity, with responses fairly evenly distributed across the organisations, departments and entities listed.

In the ECCDE sector, primary responsibility for quality assurance rests with the Ministry of Education, alongside another government ministry. In the schooling sector, the Ministry of Education is most often responsible for QA, followed by leading institutions and key agencies and another government department or ministry. With regards to the TVET sector, it would appear that another government ministry aside from the Ministry of Education is responsible for quality assurance of curriculum delivery foremost, alongside a dedicated qualifications agency.



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Table 46: Responsible entity for curriculum development, implementation and quality assurance, by country

	Qualifications agency / department			Ministry of Education Department			Another government department/ministry			Leading institutions and key agencies (teacher organisations; professional organisations)			Social partners and other stakeholders (public, private, civil society)			Other		
	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET
Burkina Faso				1	2	3												
				1	2	3												
				1	2	3												
Cameroon				1	2	3												
				1	2	3												
				1	2	3												
Chad				1	2	3												
				1	2	3												
				1	2	3												
Cote d'Ivoire				1	2	3												
				1	2	3												
				1	2	3												
Ethiopia				1	2	3												
				1	2	3												
				1	2	3												
Ghana				1	2	3												
				1	2	3												
				1	2	3												
Liberia				1	2	3												
				1	2	3												
				1	2	3												
Mauritius				1	2	3												
				1	2	3												
				1	2	3												



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	Qualifications agency / department			Ministry of Education Department			Another government department/ministry			Leading institutions and key agencies (teacher organisations; professional organisations)			Social partners and other stakeholders (public, private, civil society)			Other		
	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET	ECCDE	Schooling	TVET
Morocco				1	2				3									
				1	2													
																1	2	3
Mozambique			3		2	3					2	3		2	3			
			3		2	3		2			2	3		2	3			
			3		2		1				2	3		2	3			
Namibia				1	2						2	3		2				
				1	2						2			2				
					2					2				2				
Nigeria				1	2	3			2	3			2				2	
				1	2		1	2										
							1	2	3									
South Africa					2													
					2													
					2													
Tanzania				1	2	3		1	2				1	2				
				1	2		1	2				3	2	2		1	2	
				1	2	3				3	3		2	2				
Tunisia			3	1	2													
			3		2													
			3		2		1											
Zimbabwe	1																	
				1	2	3												
				1	2													



3.6 Curriculum and assessment

Survey respondents were asked to answer a number of assessment-related questions, including whether their country conducts national systematic assessments, whether or not their country participates in regional / international comparative assessments, and how their country performs against regional and international standards.

3.6.1 National systemic assessments

Respondents were asked to indicate how frequently their countries conduct national systemic assessments. 21 responses were received from 15 countries.

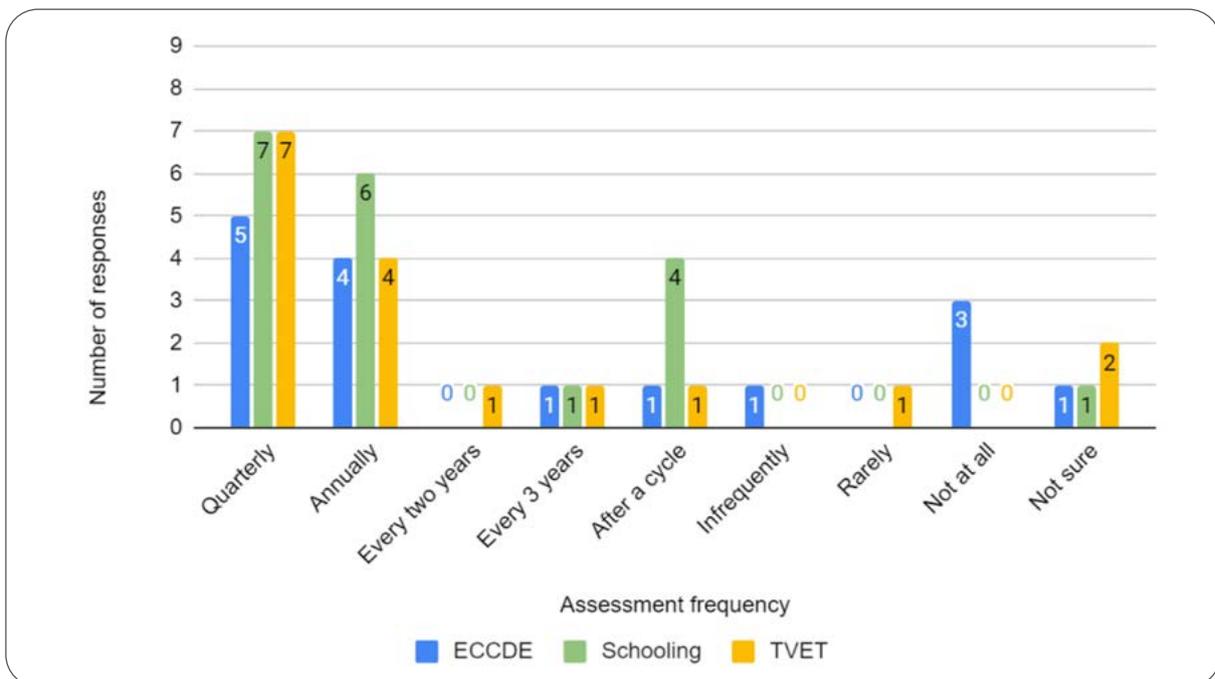


Figure 47: Frequency of national systemic assessments

Quarterly assessments were the most commonly reported national systemic assessments across all three education sub-sectors, followed by annual assessments. Four respondents reported that assessments take place “after a cycle” in the schooling sector.

One country reported that assessments are conducted every three years for all the sectors. One respondent reported that assessments in the TVET sector take place “rarely” and this might be indicative of a weak TVET system in the respondent’s country.

For the ECCDE sector it was reported by three respondents that assessments are not conducted at all. This could indicate that at this level of education, assessments are not as formalised as compared to the schooling and TVET sectors.



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3.6.2 Regional and international comparative assessments

Respondents were asked to indicate which regional and international comparative assessments their countries participate in, and to rate the performance of their country's education system against a set of regional and international standards.

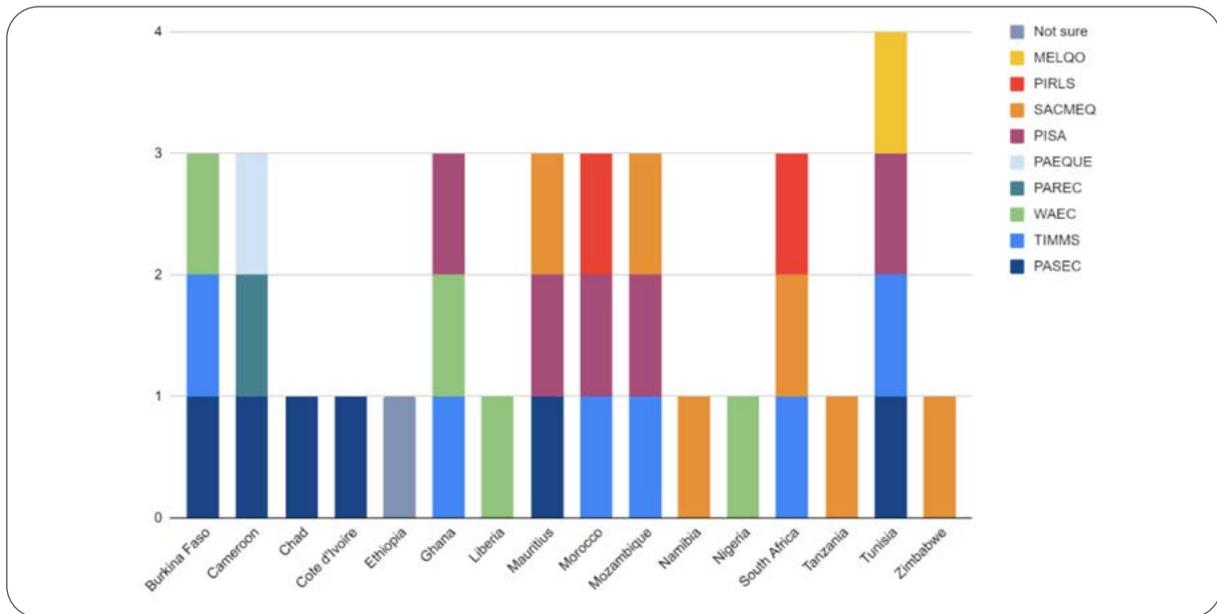


Figure 48: Reported participation in regional and international comparative learner assessments, by country

Of the 16 reporting countries, 37% reported participating in the Programme for the Analysis of Education Systems (PASEC) assessment (<http://www.pasec.confemen.org/>). The PASEC assessment is conducted in francophone African countries and collects data on the quality of education in these countries by specifically assessing students' abilities in mathematics and reading.

37% of countries also reported participating in the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) assessment (<http://www.sacmeq.org/>). SACMEQ is an international non-profit developmental organisation, comprising 16 ministries of education in Southern and Eastern Africa and conducts assessments in five or six-year intervals looking at the conditions of schooling as well as learner and educator performance in literacy and numeracy (ACER, 2015).

TIMSS (<https://timssandpirls.bc.edu/>) is an international assessment used for monitoring trends in student achievement in the areas of mathematics, science, and reading. TIMSS was the third most common assessment that 37% of countries reported participating in.

6. https://www.acer.org/files/AssessGEMs_SACMEQ.pdf





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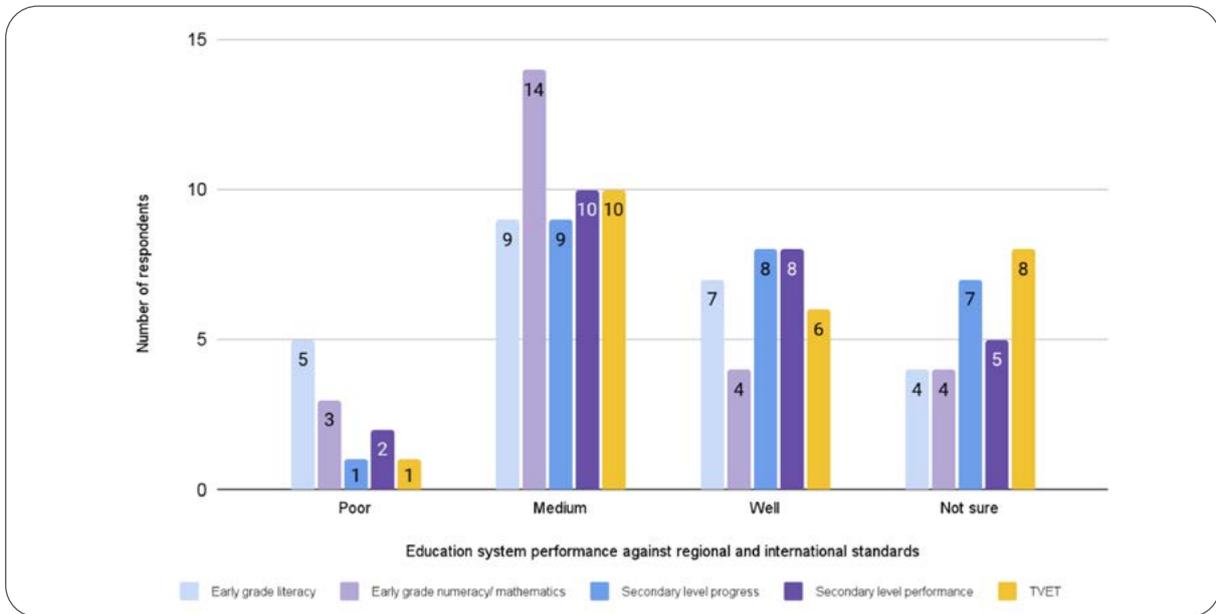


Figure 49: Reported performance of national education systems against regional and international standards

When asked to rate their education systems’ performance against regional and international standards, most countries rated their education systems’ performance as “medium” (41%) or “well” (26%) in early grade literacy, and early grade numeracy/mathematics. However, research indicates that African children lack basic foundational skills such as literacy and numeracy (RTI International, 2015).

Similarly with secondary level performance and secondary level progress, 18 and 17 respondents respectively reported that their education systems performed “medium” or “well” when measured against regional and international standards. However, in its report “Meeting Commitments”, the UIS reports that only one in ten learners in sub-Saharan Africa who are in schools reach a minimum level of proficiency in reading and mathematics by the end of their primary education (UIS, 2019) while Zua (2021) reports that the average adult literacy rate in sub-Saharan Africa is 61% - one of the lowest in the world. Christiansen (2016) also indicates that many countries in West Africa such as Chad, Côte d’Ivoire, Mali, Guinea and Niger have adult literacy rates below 50%.

Respondents were least likely to be able to rank the performance of their TVET sectors against regional and international standards, with the majority of respondents reporting that TVET fared ‘medium’. One interview respondent indicated that there are difficulties in obtaining reliable data from TVETs “[making] it hard to measure success with regard to the implementation of TVET strategy”.

Overall, it is therefore likely that reported performance is higher than would be achieved during assessment.

7. <http://uis.unesco.org/sites/default/files/documents/meeting-commitments-are-countries-on-track-achieve-sdq4.pdf>

8. <https://files.eric.ed.gov/fulltext/EJ1285566.pdf>

9. Adult literacy rate is the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life.

10. <https://blogs.worldbank.org/africacan/yep-about-reading-and-writing-again>



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3.6.3 Reported improvement against regional and international standards

In terms of attempted improvements in country education sub-systems, respondents from all 16 countries reported that their education systems are attempting to improve performance in early grade numeracy and mathematics. 15 countries reported that they are attempting improvements in early grade literacy, secondary level progress, and secondary level performance.

Reflecting a general trend in under prioritising of TVET, only 56% of countries (9) reported attempted improvements against regional and international standards in the TVET sector.

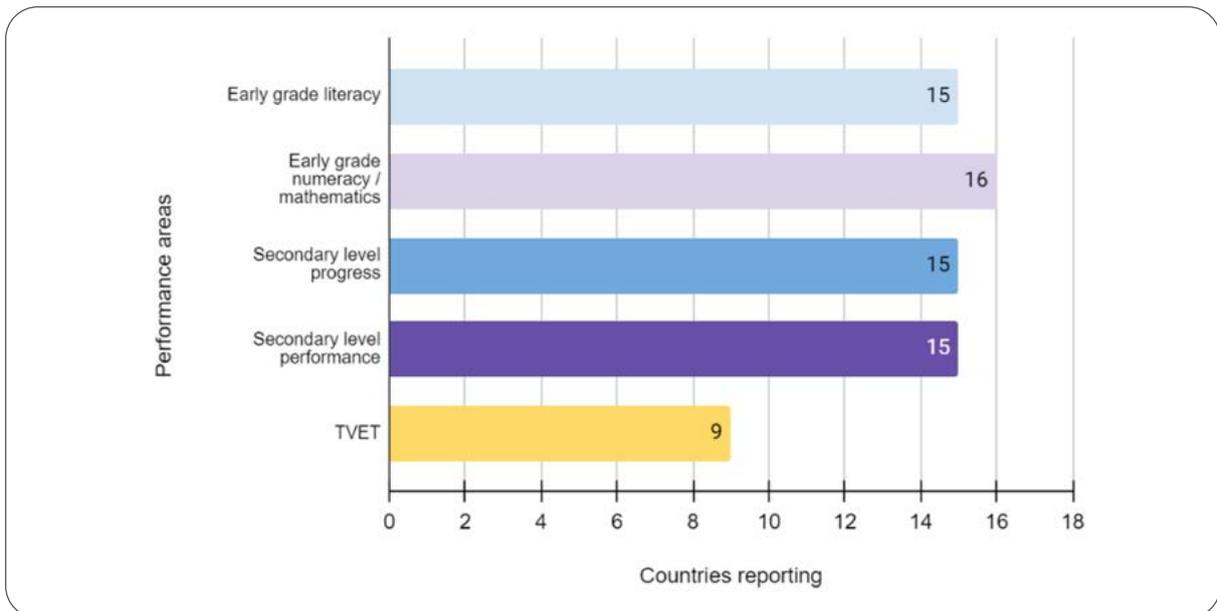


Figure 50: Reported system improvement against regional and international standards





3.7 Curriculum reform

Survey respondents were asked to comment on the various curriculum reviews and reforms currently taking place in their countries. Respondents from all 16 countries indicated that some kind of curriculum reform is currently taking place in their country. Respondents from 6 countries reported competency-based curriculum reform, following a general trend wherein competency-based approaches to education are being more readily adopted.

3.7.1 Curriculum review

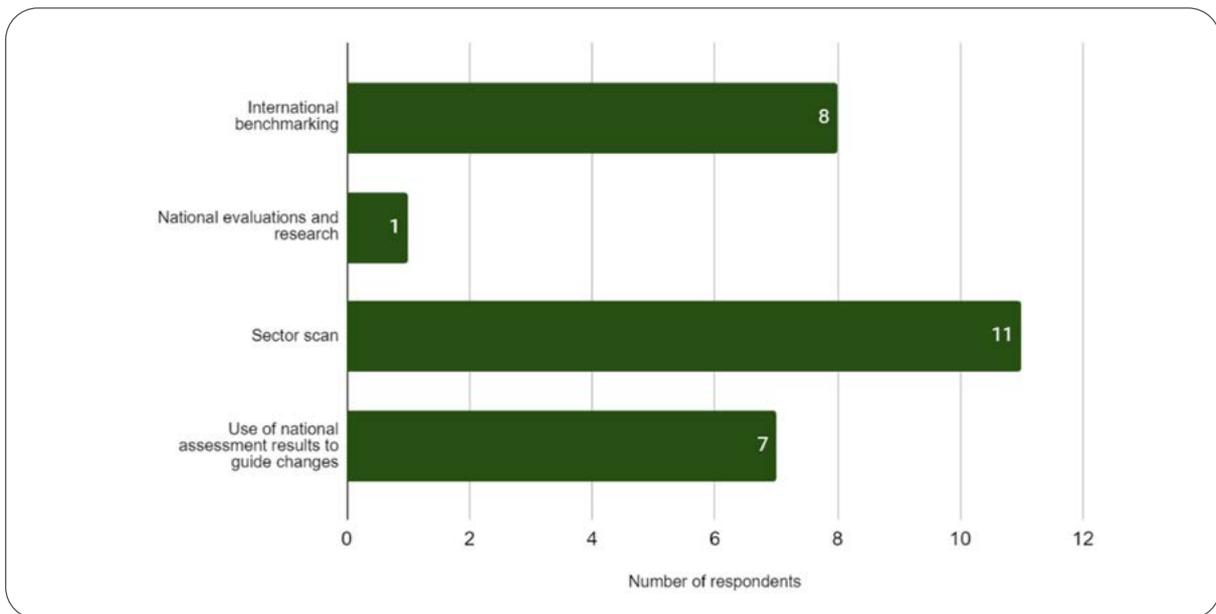


Figure 51: Plans to review national curricula

16 respondents from the schooling sector reported that there are plans to review the national curriculum in their countries. 12 respondents representing the TVET sector mentioned that there were also plans to review the national TVET curriculum in their countries and 10 respondents stated that there were plans to review the ECCDE national curriculum. Twelve respondents were unsure as to whether there were plans to review any of the three sectors' national curricula. Three countries reported that curricula are reviewed every five years, while another reported that it is reviewed every ten years. One country reported that curricula for subjects like computer science are updated more frequently. Three countries reported that the curriculum has already been reviewed, some as recently as 2020 and others between 2015 and 2020.

Five countries reported that curriculum review is currently underway for the various sectors (ECCDE, schooling and TVET). Six countries reported that there are plans to review the curriculum and of these six, four countries reported that they plan to move towards a competency-based curriculum. One country reported that the curriculum is reviewed to be "aligned to the needs of the market, internalization, contextualization in line with local needs, new skills, re-skilling and technology-driven demand."



3.7.2 Curriculum reform

Six countries reported that they are moving towards the adoption of a competency-based approach to the curriculum, while one country reported a shift from an objectives-based curriculum to a standards-based curriculum. Three countries reported promoting 21st century skills as well as digital literacy in their curriculums.

Two countries reported the reform of “Advanced Subsidiary” at the end of formal education, or in grade 12. One country reported that it is currently diversifying from a mostly academic pathway to a “three stream model” (academic, vocational and technical). Another country reported a “global overhaul of the primary curriculum, implementation of the preschool curriculum framework and the inclusive education curriculum framework.” One country reported that since 2015, the “Nine Years Continuous Basic Education” reform is being implemented.

One country reported reforms around “career and technical education; moral education; and education related to the world of work.” Another country reported reforming the “development of content and mode of assessment on the basis of the fields of normative competences and number of training modules.”

3.8 Curriculum innovation

A key objective of the survey was to establish the extent to which any curriculum innovation is preceded by a sector scan and accompanied by an M&E component in order to guide implementation and assess impact. Research of this kind is key to making curriculum reform more of science, based on empirical evidence.

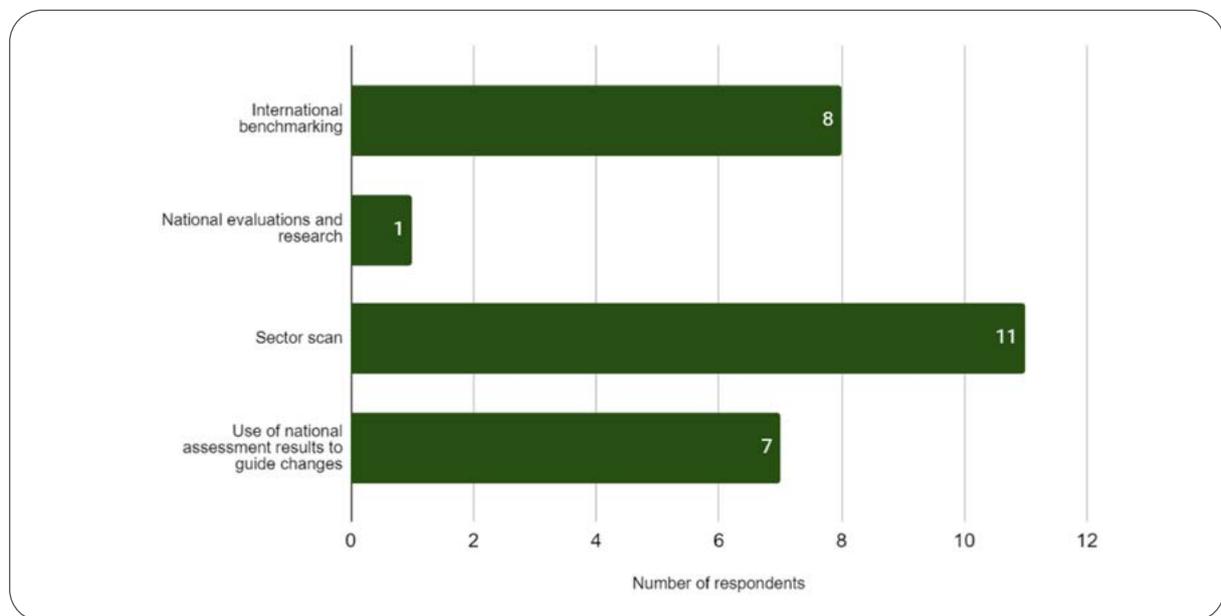


Figure 52: Drivers of curriculum innovation

Based on feedback from 25 survey respondents, eleven respondents reported that curriculum innovation is preceded by a sector scan in their countries, while another eight indicated that international benchmarking drives curriculum innovation. Seven respondents reported that the results of national assessments are used to guide innovation in the curriculum. Only one respondent reported that national evaluations and research guide changes in the curriculum.



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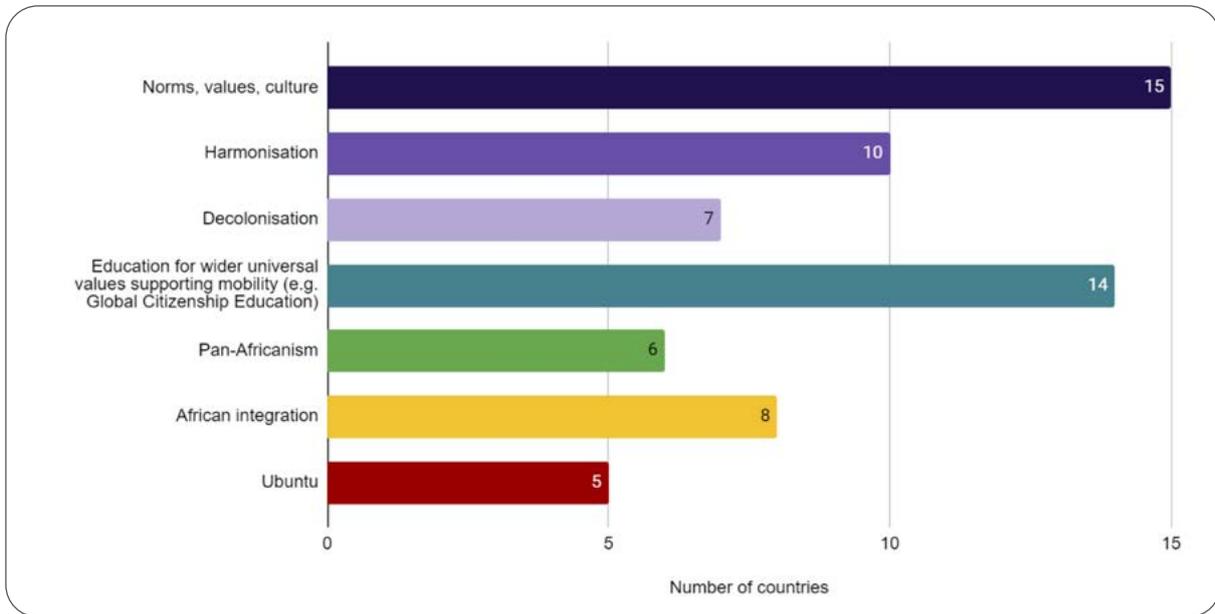


Figure 53: Curriculum themes

Based on data collected from respondents from 16 countries, the top three themes considered in the curriculum identified by respondents were norms, values and culture (94%); education for wider universal values supporting mobility (87.5%); and harmonisation (62.5%). These themes could indicate the development of common standards across the continent.

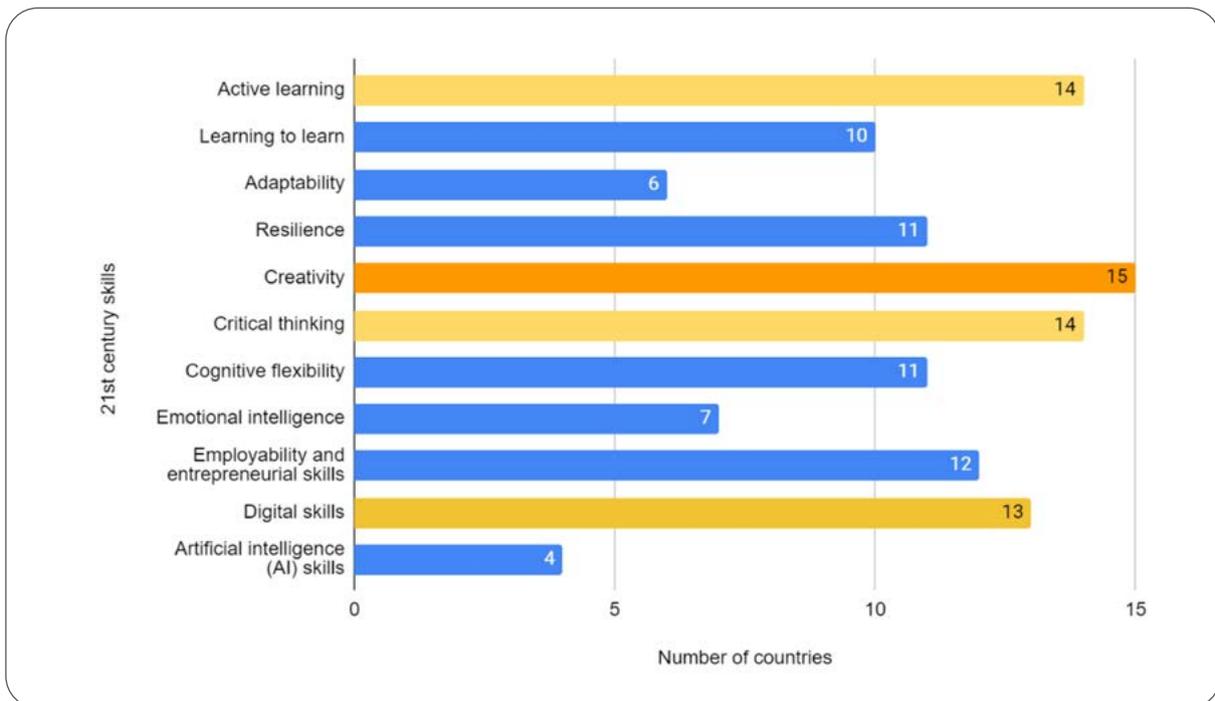


Figure 54: Curriculum support for 21st century skills

When asked to identify the top 21st century skills needed in the Fourth Industrial Revolution (4IR) that are being developed across the curricula in respondents' countries, respondents identified creativity (94%), critical thinking (87.5%), and active learning (87.5%), and digital skills (81%). Employability and entrepreneurial skills were identified by 75% of respondents, while skills promoted for the development of 4IR at the global level, like Artificial Intelligence skills, were only identified by 25% of respondents.

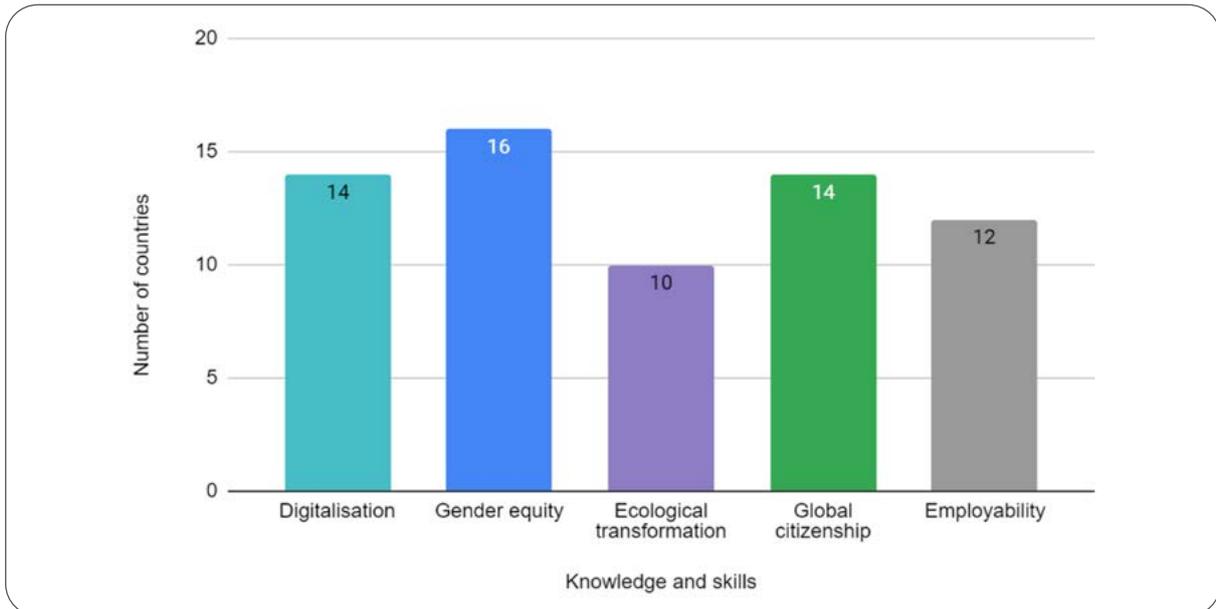


Figure 55: Global mega-trends in curricula

When asked which of the following new knowledge and skills related to global mega-trends are included in and developed by curricula, respondents from all 16 countries indicated that gender equity is included (100%), followed by digitalisation and global citizenship (87.5% respectively). Employability (75%) featured slightly less, with ecological transformation (62.5%) the least likely to be in curricula in survey respondents' countries.

3.9 Financing curriculum innovation

3.9.1 Government financing

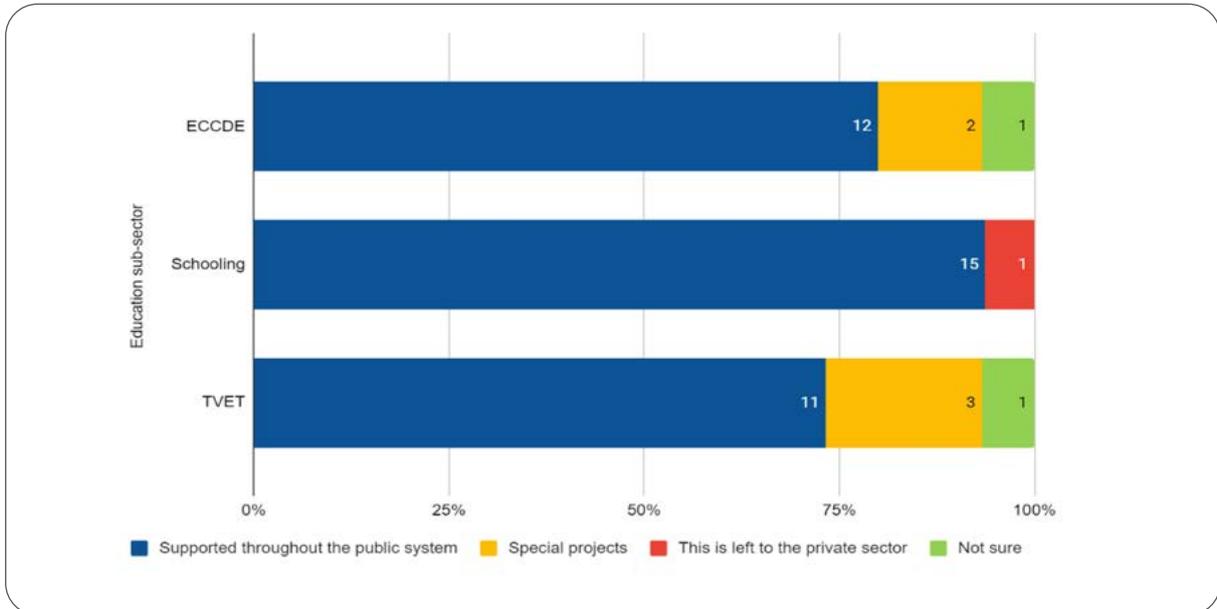


Figure 56: Government role in financing curriculum innovation by number of countries

In general, for the majority of respondents, it is clear that curriculum innovation is supported through the public system. In general, curriculum innovation in the schooling sector is almost exclusively supported by public funds (94%), except in one country where the financing of school level curriculum innovation is left to the private sector. For the ECCDE (80%) and TVET (73%) sectors, the majority of respondents indicated that curriculum innovation is supported throughout the public system, with a handful of respondents indicating that curriculum innovation is financed through or with the addition of special projects.



3.9.2 Private sector financing

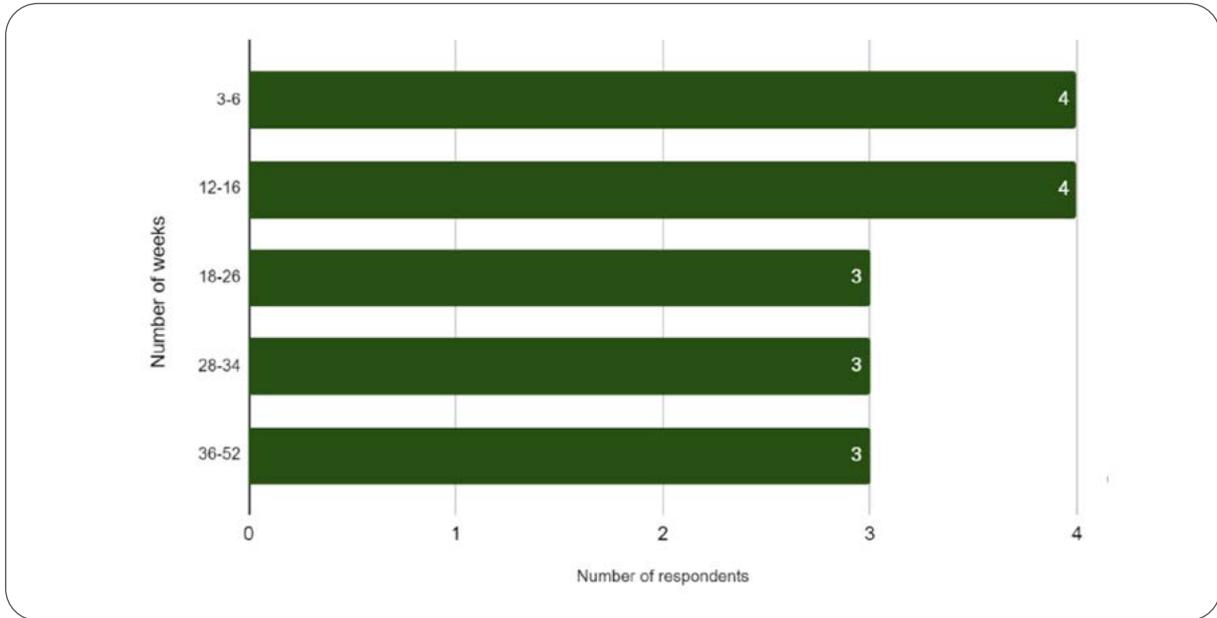


Figure 57: Private sector role in funding

The private sector plays different roles in funding across sectors in the various countries. Respondents from 14 countries provided inputs on this question. In the ECCDE sector, the top two areas where the private sector was noted to be playing an important role were the funding of particular programmes (6) and funding the purchase of equipment for workshops (5). In the schooling sector, the private sector was reported to play a role in funding the purchase of equipment for workshops (7), funding individual students (5) and funding particular programmes (6). In the TVET sector the top three areas funded by the private sector were the purchase of equipment for workshops (8), particular programmes (6) and hosting students for work exposure (4).





3.10 The impact of Covid-19 on curriculum delivery

Given the ongoing and critical impact of the Covid-19 pandemic on the education sector in general, and on curriculum delivery in particular, the survey sought to gauge the impact of the pandemic on the success of curriculum delivery, on the methods implemented by countries to ensure curriculum delivery, and on the use of digital technologies.

3.10.1 Curriculum delivery during Covid-19

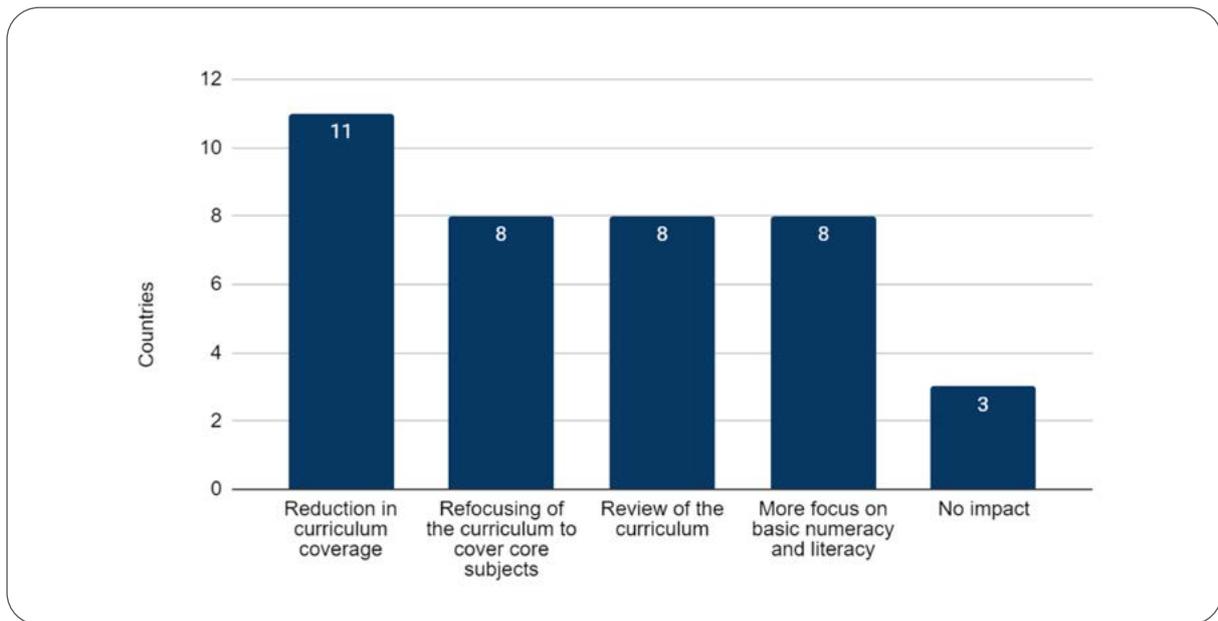


Figure 58: Impact of Covid-19 on the curriculum

The impact of the Covid-19 pandemic on the curriculum was acknowledged by respondents from 15 out of 16 countries. The greatest impact was a reduction in curriculum coverage, reported by 68.7% of countries. For 50% of countries, the curriculum was re-focussed to cover core subjects, including basic numeracy and literacy. Interestingly, 50% of countries reported that Covid-19 has resulted in a review of the curriculum, which may partly explain the number of current curriculum review and reform efforts reported by survey respondents (discussed in section 3.9). A respondent from only one country reported outright that Covid-19 had ‘no impact’ on the curriculum, while the remaining ‘no impact’ responses conflicted with respondent data from the same country.



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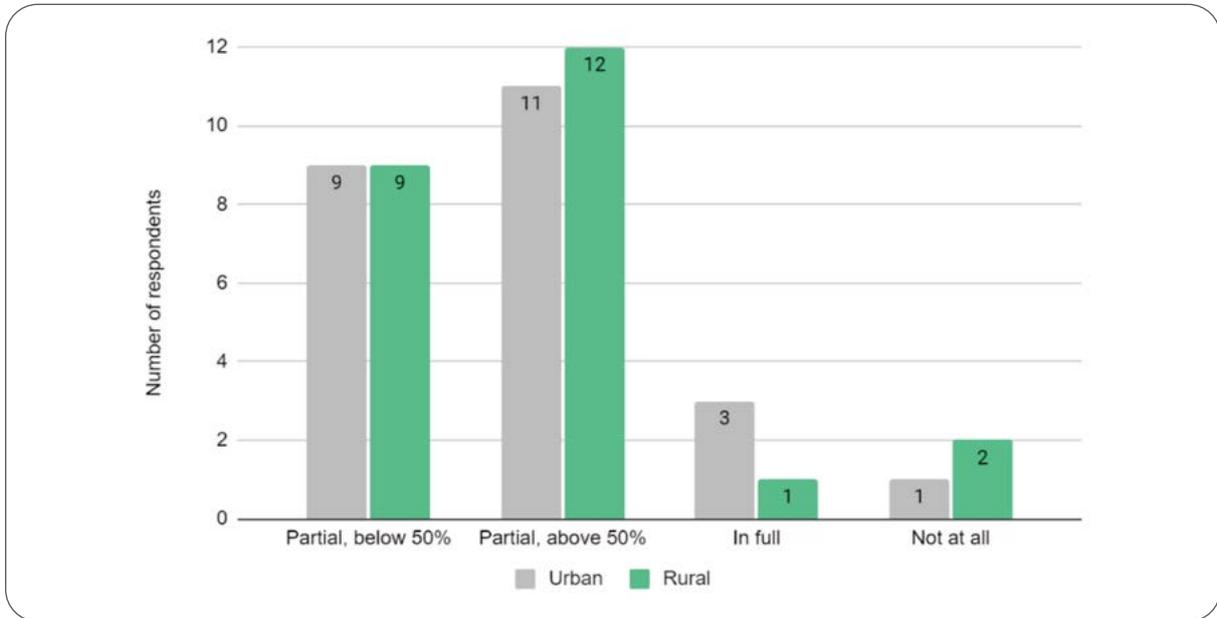


Figure 59: Curriculum delivery during the pandemic

Based on 24 responses from 16 countries, the majority of survey respondents agreed that partial delivery of the curriculum, above 50%, had been achieved in both urban areas (46%) and rural areas (50%). Partial curriculum delivery, below 50%, was noted by 9 respondents (38%) for both urban and rural areas. Only three respondents (13%) reported that full curriculum delivery took place in urban areas in their country during the pandemic, while one respondent stated that the curriculum had been delivered in full in their country in rural areas. Three respondents reported no curriculum delivery at all, one in urban areas (4%), and two (8%) in rural areas.



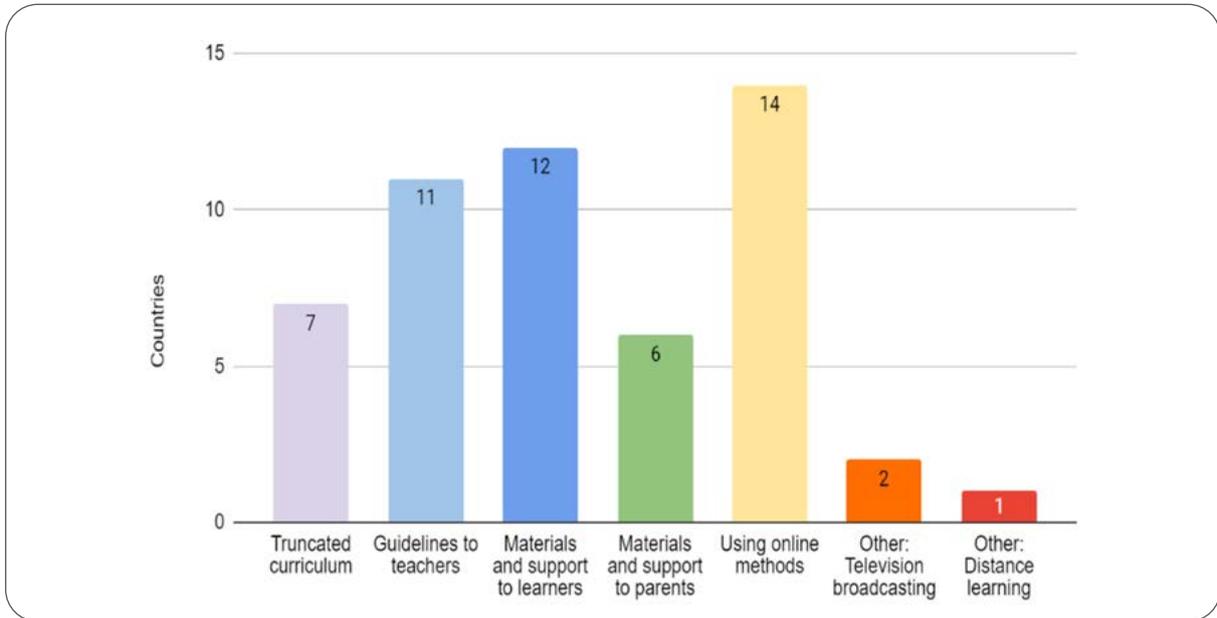


Figure 60: Methods to ensure curriculum delivery during pandemic

When asked about the methods used to ensure curriculum delivery during the pandemic, respondents from 16 countries indicated that the predominant action was using online methods (87.5%). Other popular methods reported included providing materials and support to learners (75%) and providing teachers with guidelines (68.7%). Just under half of countries (43.7%) reported truncating (reducing or shortening) the curriculum, while just over a third of countries (37.5%) reported supplying materials and support to parents. Three countries reported using ‘other’ methods; two indicated the use of television channels to broadcast lessons, and one indicated that “distance education was introduced with the advent of Covid-19”.

3.10.2 Curriculum catch-up measures

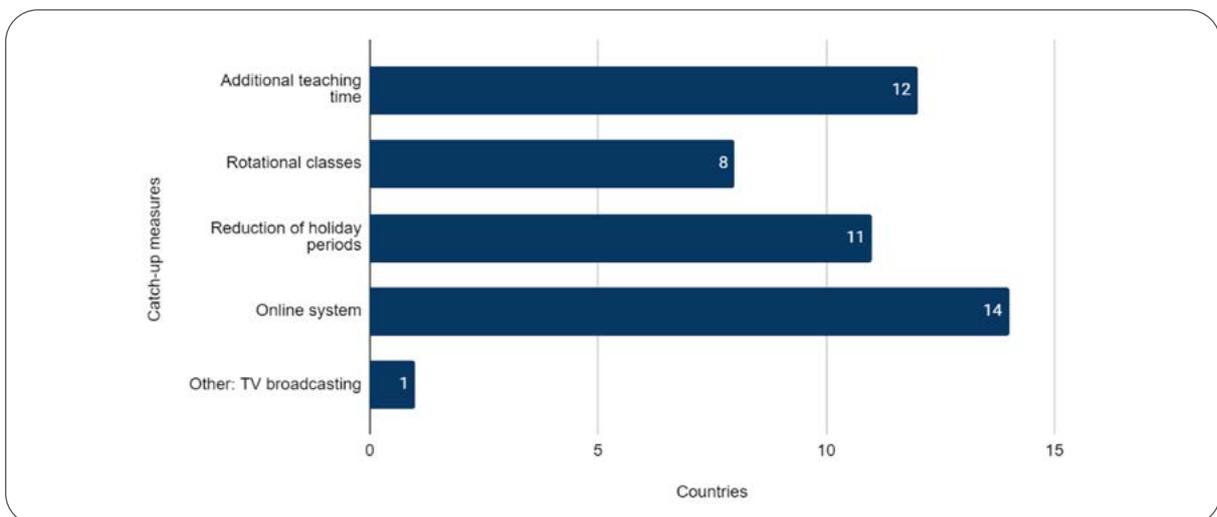


Figure 61: Catch up measures implemented for curriculum recovery



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Mirroring the findings in curriculum delivery measures countries (87.5%) reported that the predominant method for curriculum recovery was using online systems. 75% of countries reported using extra teaching time to catch-up, and 68.7% of countries reported a reduction of holiday periods to ensure catch up of the curriculum.

3.10.3 Using digital technologies

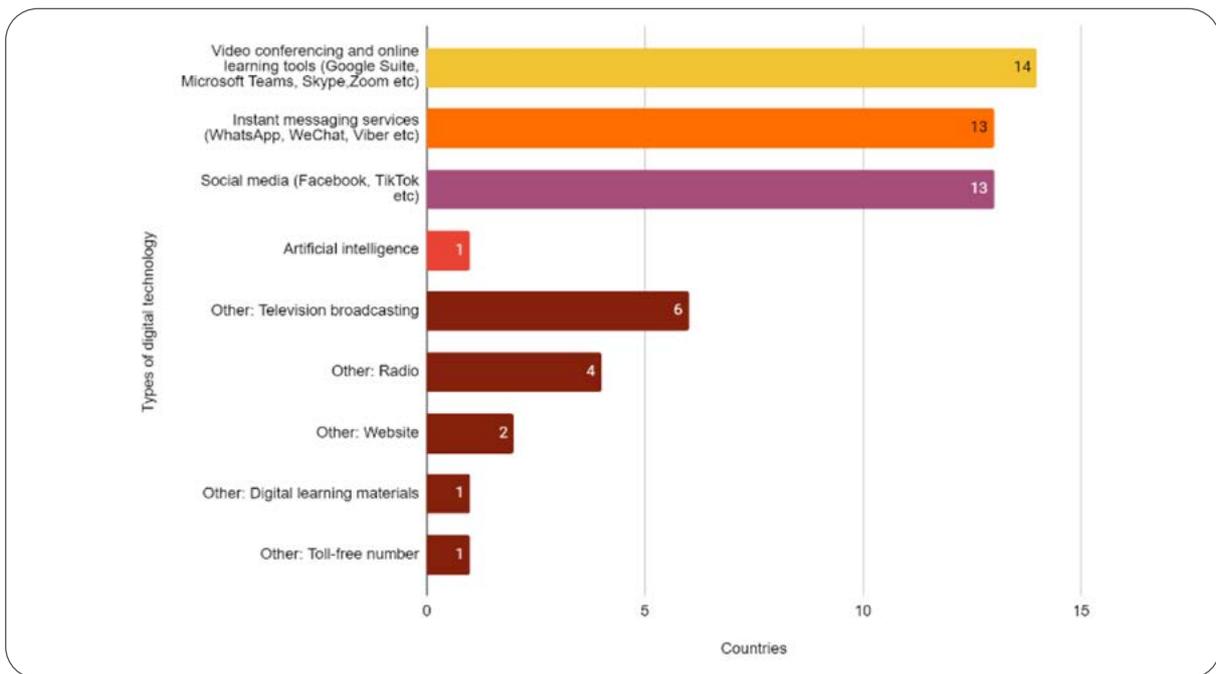


Figure 62: Types of digital technology have been adopted during the Covid-19 pandemic to ensure continuation of teaching and learning

Reflecting worldwide trends, some of the digital technologies adopted by countries to ensure continuation of teaching and learning during the pandemic included video conferencing and online learning tools (87.5%), instant messaging services (81%), and social media (81%). In terms of 'other' technologies, a handful of countries reported using analogue technologies such as television broadcasting (37.5%) and radio (25%), although in real terms the use of radio and television broadcasting as a lower cost intervention, particularly during the early days of the pandemic, was likely higher. Given that for many countries globally, Covid-19 acted as the catalyst for investment in online learning technologies which had, until then been primarily used in wealthier countries, or in better resourced private educational institutions, it is no surprise that only one country reported the use of artificial intelligence in teaching and learning.

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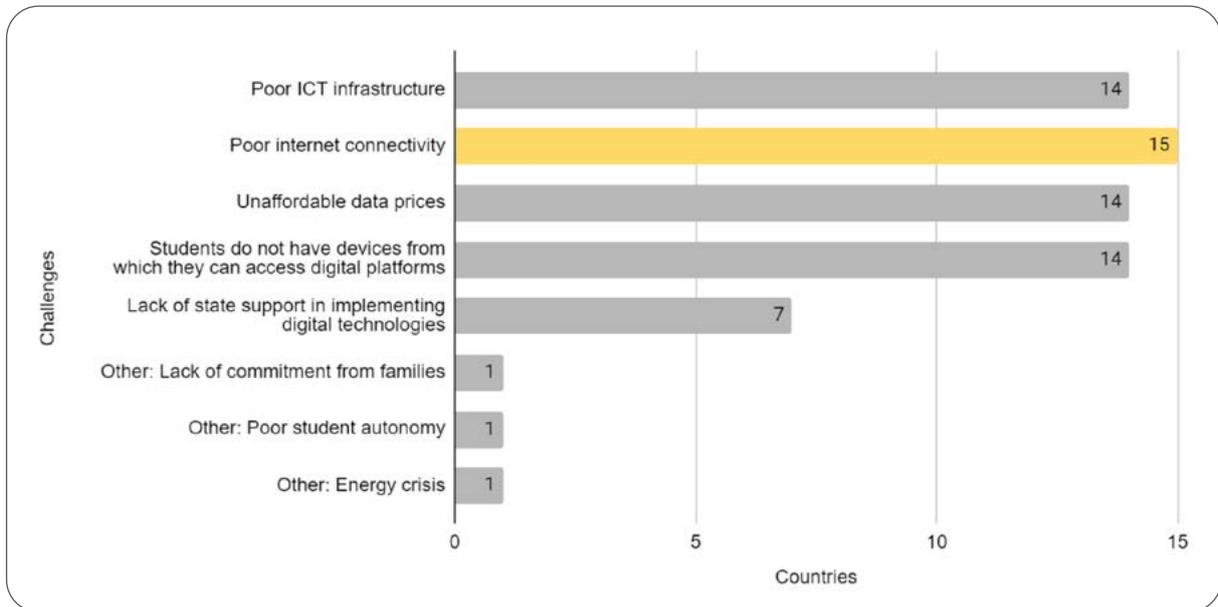


Figure 63: Challenges in implementing digital technologies

Naturally, with the use of digital technologies in teaching and learning implementation challenges arose. The foremost challenge reported by countries was poor internet connectivity (93.7%). This was followed by poor ICT infrastructure, unaffordable data prices, and a lack of devices for students to access digital platforms (87.5% respectively). Just less than half of countries (43.7%) reported a lack of government or state support in implementing digital technologies. Other issues experienced by countries include an ‘energy crisis’, a lack of student autonomy, and lack of commitment from learner’s families. While the most prominent challenges are common across the continent, it reinforces the call for better ICT infrastructure and internet connectivity, lower and less exploitative data pricing regimes, and for more equitable access to digital devices.

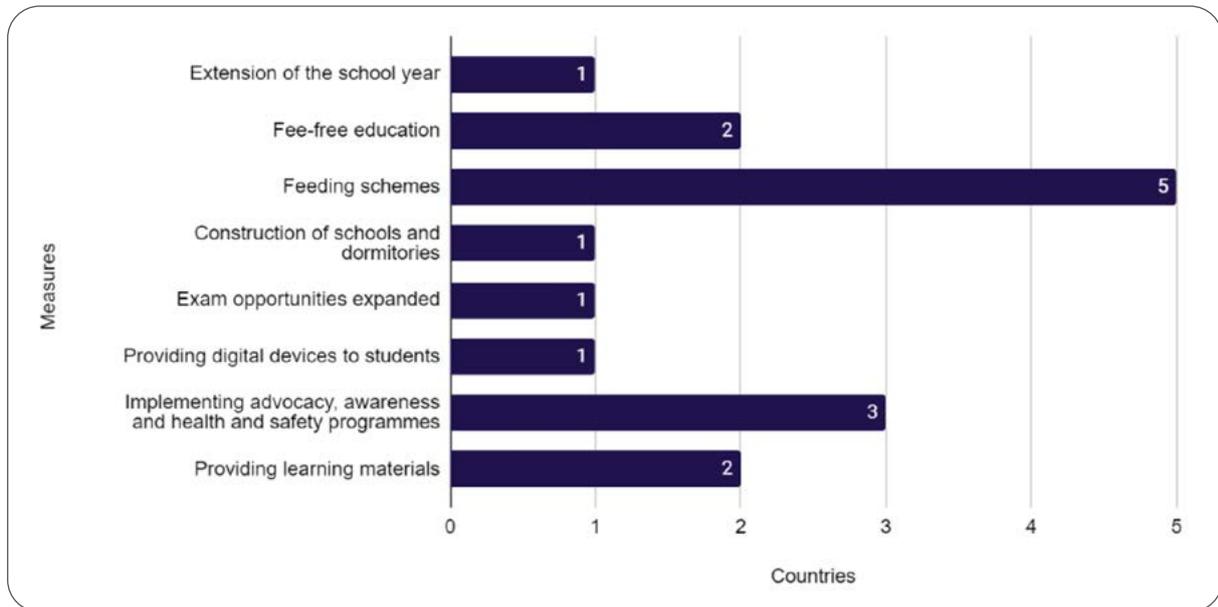


Figure 64: Measures are put in place to discourage early drop-outs from schools and colleges

Recent UNESCO data¹¹ indicates that African countries experienced an average of 31 weeks of full or partial school closures between March 2020 and November 2021. The UN estimates that school closures have “wiped out 20 years of education gains”, and that progress will continue to decline as school drop-out rates have increased considerably, bearing in mind that women and girl children are disproportionately affected by these events.

Given this, respondents were asked to provide feedback on the measures put in place in their countries to discourage early drop-outs from schools and colleges. Five countries reported implementing a school feeding programme as one of the measures to prevent early drop-outs from schools and colleges. Three countries reported implementing various advocacy, awareness, and health and safety campaigns in an effort to reduce drop-outs. Two countries reported that fee-free education was a measure adopted by the country to reduce early dropouts. Two countries mentioned the construction of dormitories and schools. Another country mentioned that they do not impose an age limit on individuals wanting to take exams. The provision of instructional materials was also noted as a measure to prevent early dropouts, as well as the early resumption of lessons and extension of the teaching year. Other measures that were reported included advocacy; creating a school environment that was conducive to learning; school health and safety programme; setting up the second chance school system; and “Child to Child” operations and mobilisation of college management boards.

3.11 Qualified and competent teachers

As discussed in the introductory chapters of this report, the importance of qualified, competent, and confident teachers in curriculum development, delivery and reform, cannot be understated. Curriculum reform can only be carried out successfully in conjunction with appropriate teacher training to ensure that both new and experienced teachers have the necessary subject knowledge and skills required for curriculum implementation. Relevant content knowledge needs to be extensively covered during pre-service training, while continuing professional development (CPD)

11. <https://www.unesco.org/en/covid-19/education-response#durationschoolclosures>



is an ongoing concern. The data collected here allows for some reflection on the first CESA strategic objective which is to “revitalize the teaching profession to ensure quality and relevance at all levels of education”. For these reasons, survey respondents were asked to provide inputs on a number of questions related to teacher qualifications, in-service training, and on a policy level, how readily the African Union’s policies, intended to aid teacher professionalisation and harmonisation of qualifications, are taken into account in national policy in respondents’ countries.

3.11.1 Teacher qualifications

The “ISCED is a standardised ‘scale’ for categorising all possible levels of education, their relevant programmes and attainments” (AUC, 2019). When asked to indicate the ISCED level of minimum qualifications required to teach in their country, the overwhelming majority of respondents were ‘not sure.’ The remainder of the responses varied considerably between ISCED Level and education sub-sector, with respondents suggesting that either an ISCED Level 2, 4 or 7 qualification was the minimum qualification required to teach. This suggests that respondents are either not familiar with ISCED Levels, or with the necessary minimum qualifications, or both.

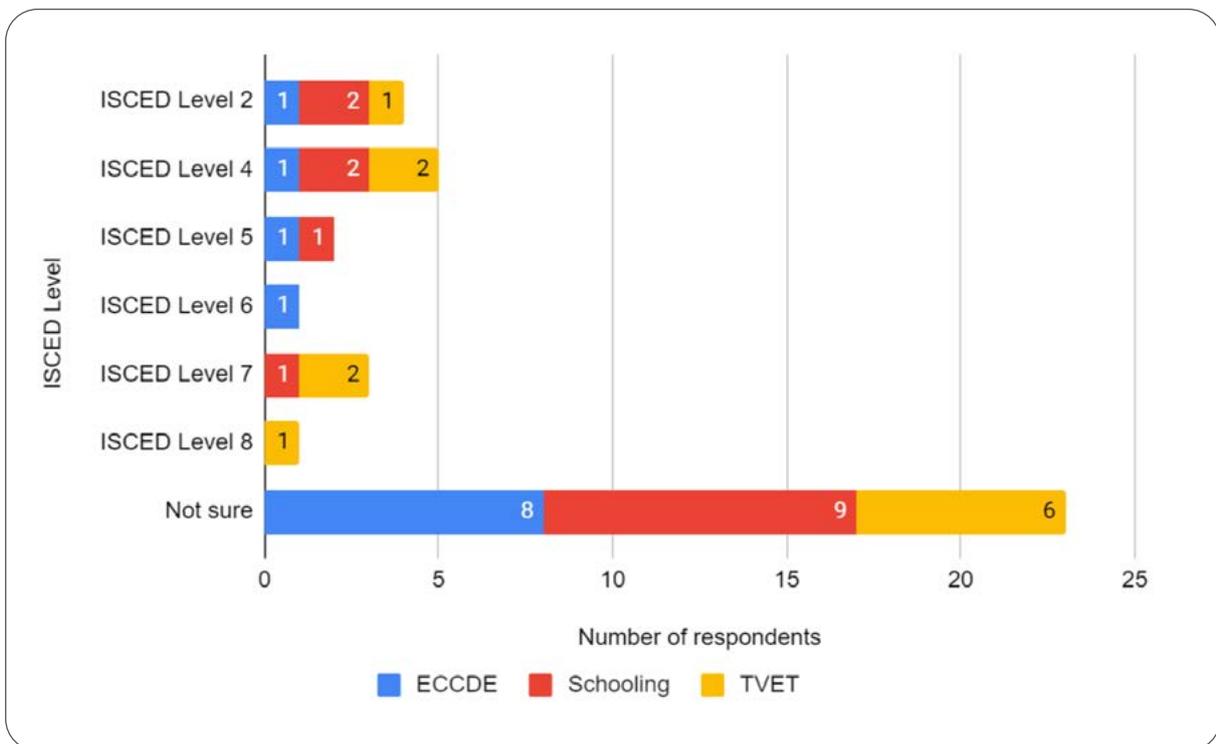


Figure 65: ISCED level of the minimum qualifications required to teach

When asked to indicate the duration of the minimum qualification required to teach, responses were more favourable. The majority of respondents for ECCDE, Schooling and TVET sectors indicated a 2-year qualification duration. While minimum qualification requirements differ from country to country, the African Teacher’s Qualifications Framework (AUC, 2019) prescribes minimum teacher qualification for entry into the teaching profession of a Bachelor of Education (B.Ed) or Post Graduate Diploma in Education (PGDE) pegged at ISCED level 6 and above. However, minimum qualification duration does not correlate neatly to ISCED levels (see Figure 65 above), and the responses above indicating the prevalence of 2-year and 4+ year qualifications as a minimum duration could refer to 4-year B.Ed qualifications or 2-year MA or PG.Dip / PGDE qualifications.



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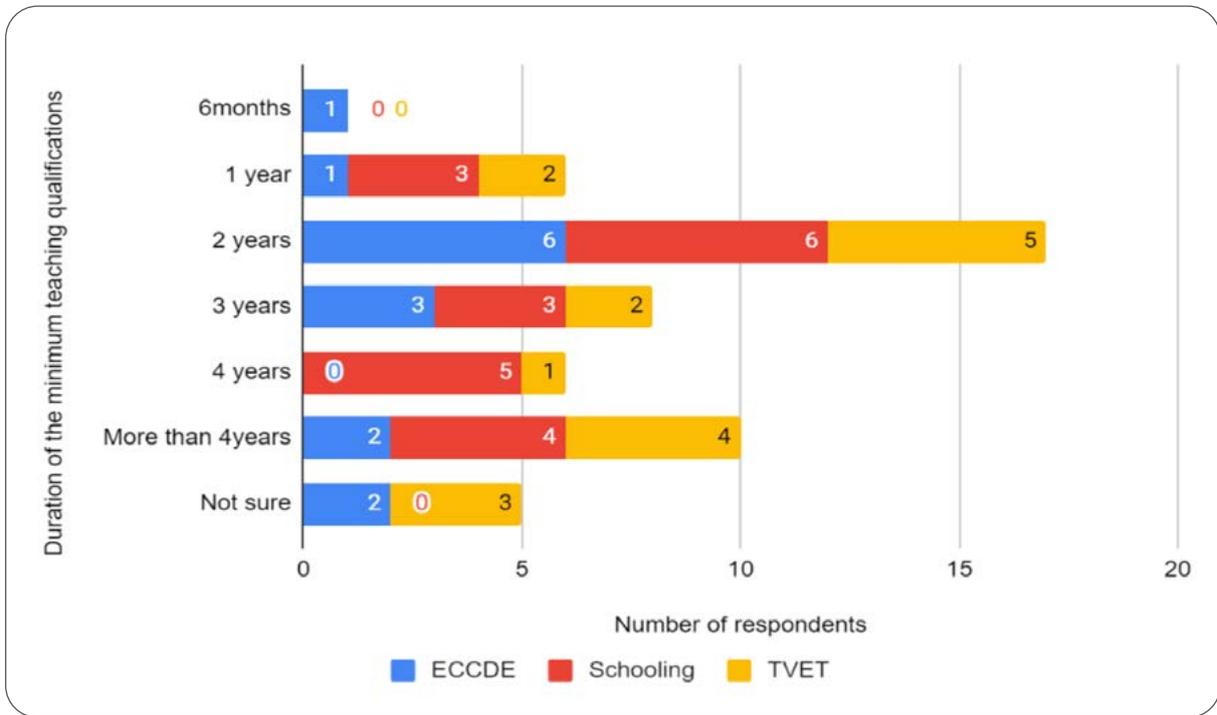


Figure 66: Duration of the minimum teacher/lecturer qualifications required to teach

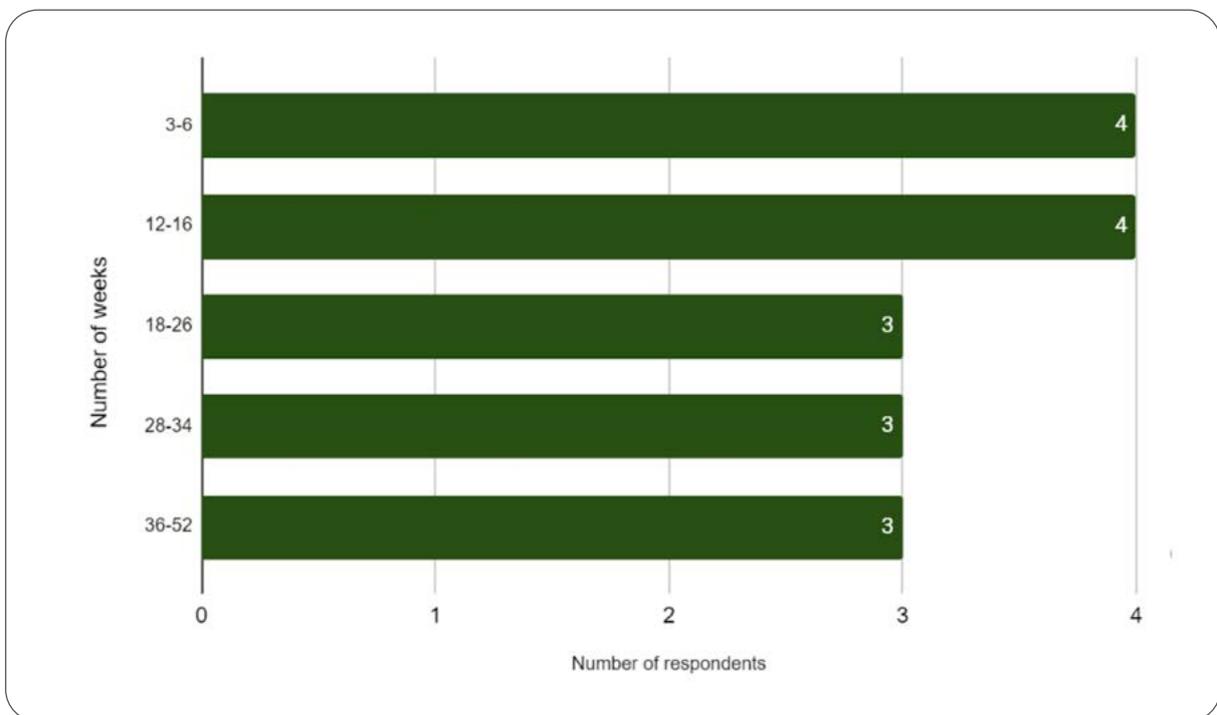


Figure 67: Average duration of teacher practice (number of weeks over the entire programme)

According to respondents, the average duration of teacher practice during teacher training programmes is between 3-6, or 12-16 weeks.





3.11.2 Teacher training programmes and CPD

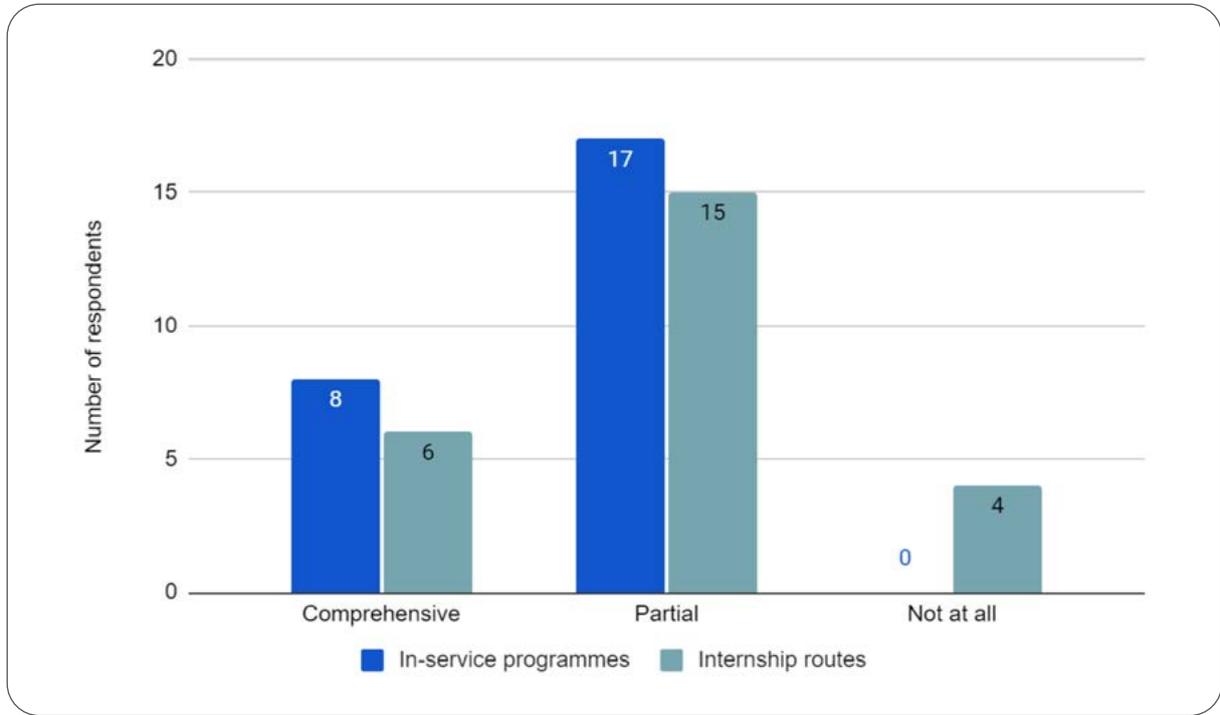


Figure 68: Extent of in-service programmes and internship routes offered for teachers

The majority of respondents (68%) indicated that the extent of in-service training programmes offered for teachers in their country is 'partial', while 32% indicated that it is 'comprehensive'. None of the respondents indicated an absence of in-service training programmes for teachers.

Based on feedback from 25 respondents, the majority (60%) noted that internship routes as a pathway for teacher training were 'partially' available. 24% of respondents indicated that comprehensive internships were available in their countries, while a further 16% of respondents indicated that internship routes for teacher training were not available at all.

Figure 68 indicates that teachers are partially supported in terms of in-service programmes as well as internship opportunities for teachers during training. Eight and six respondents respectively reported that there is comprehensive support for teachers in in-service programmes and internship routes.

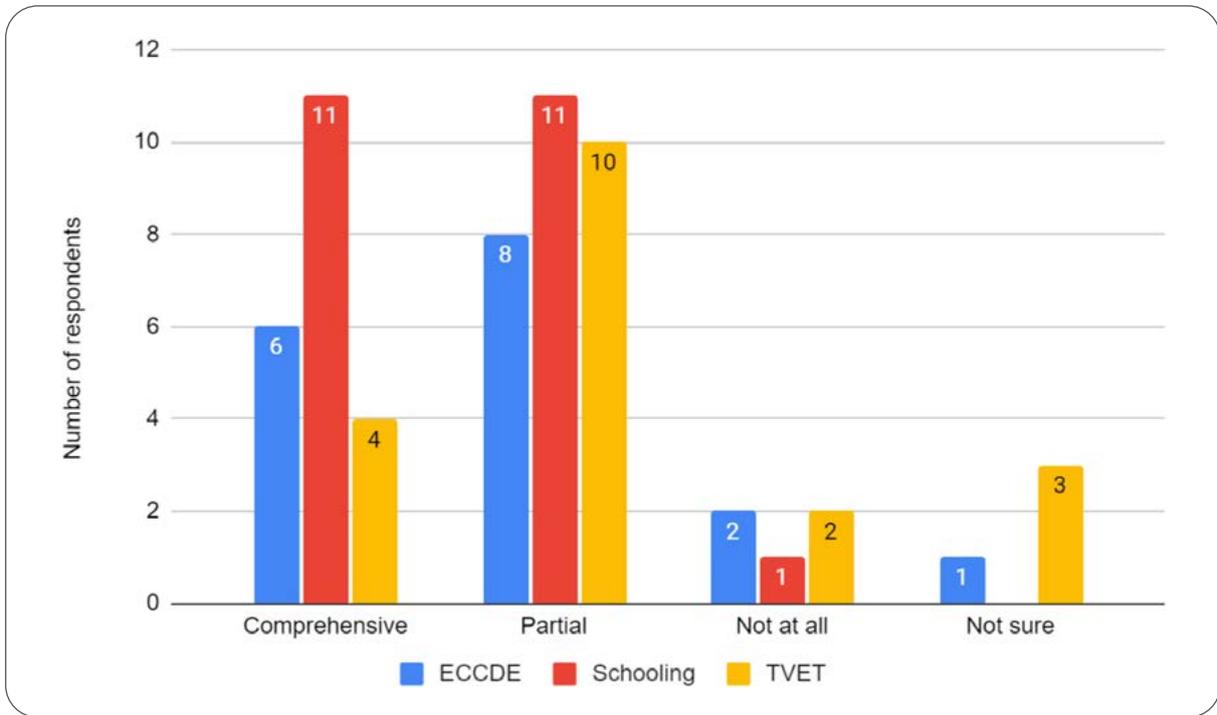


Figure 69: Prevalence of CPD for teachers

Figure 69 indicates that 11 respondents said that there is comprehensive CPD for teachers in the schooling sector, while another 11 reported that CPD is partial in the sector. In the ECCDE sector six and eight respondents mentioned that there is comprehensive and partial CPD respectively for teachers. The TVET sector offers comprehensive CPD according to four respondents while another ten reported that there is partial CPD in the sector. These offerings suggest that a more comprehensive training programme is in place for pre-service teachers and CPD is prevalent in most countries across sectors, either comprehensively or partially.

Interview respondents report that teacher training programmes are a matter of priority in their countries, and that efforts are in place to update the teacher training curriculum to equip teachers with pedagogical tools for implementing revised national curriculum.





3.11.3 Content and professional standards

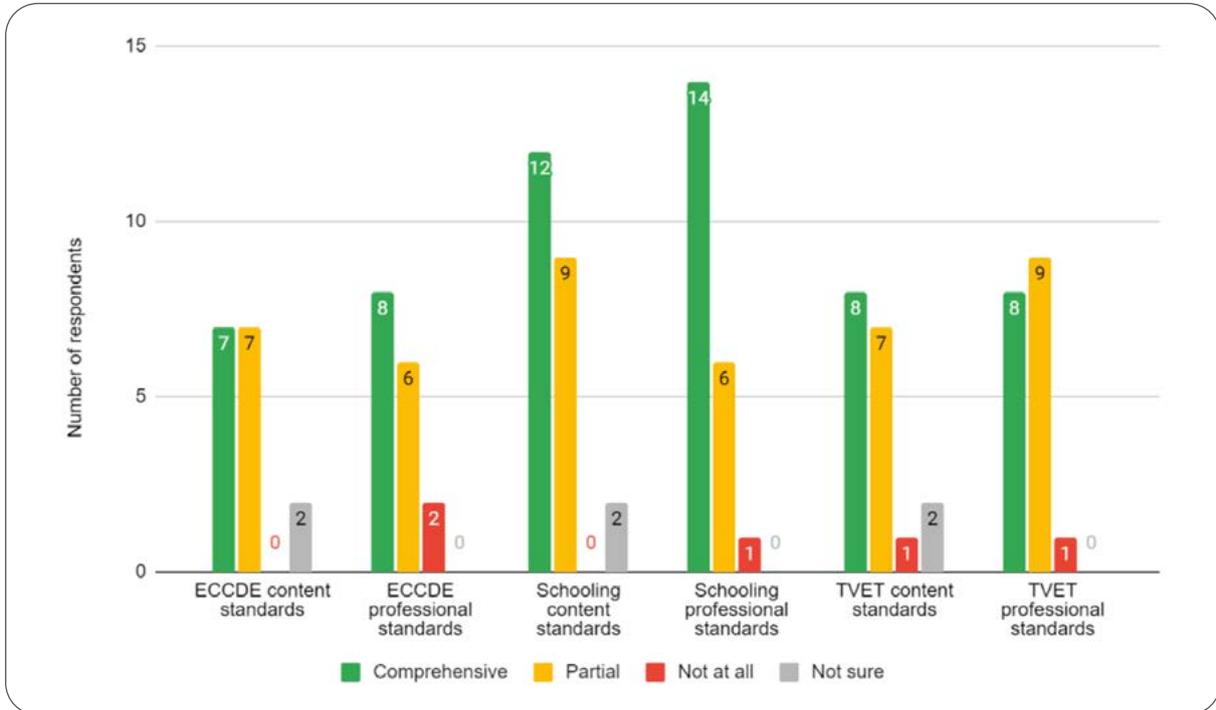


Figure 70: Existence of content standards to guide teacher training providers and professional standards to guide teacher professionalisation

When asked if content standards are in place to guide teacher training providers, 12 respondents reported that there is a comprehensive existence of content standards in the schooling sector for teacher training providers, while another 9 reported that there is partial existence of it.

Another two respondents said that they were unsure of the existence of such standards for teacher training providers. Seven respondents reported that there is a comprehensive existence of content standards in the ECCDE sector for teacher training providers and another 7 said that there is partial existence of content standards that guide teacher training providers in the ECCDE sector.

When asked about the existence of professional standards for teachers, 14 schooling sector respondents said that teacher professionalisation is guided by professional standards to a comprehensive extent while another six said that there was partial existence of professional standards guiding professionalisation. 8 respondents reported that professional standards exist for teachers in the ECCDE sector to a comprehensive extent and six reported that professional standards exist to a partial extent in the sector, while another two said that standards do not exist at all for teachers in the ECCDE sector. TVET sector respondents (n=8) reported that professional standards exist for teachers comprehensively in the sector and nine respondents said that professional standards exist to a partial extent for teachers. These results indicate that professional standards exist in the respondent countries to varying degrees and could be expanded to assist in professionalising the teaching profession across all sectors.



3.11.4 Curriculum development and learning outcomes

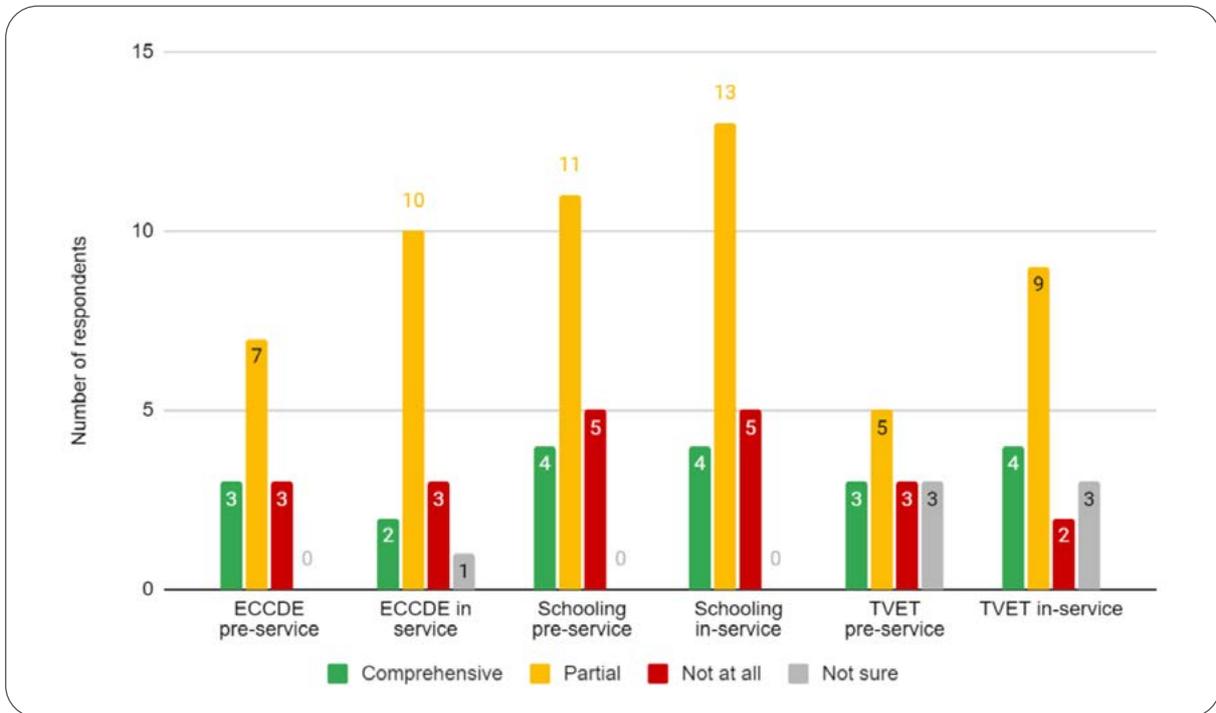


Figure 71: Extent to which teachers taught to develop curriculum during pre-service and in-service training

Figure 71 relates to teachers being taught to develop curriculum both during pre-service and in-service training. Overall, survey responses make it evident that teachers are only partially taught how to develop curriculum during pre-service and in-service training across all three sub-sectors. Proportionally, few respondents indicated that comprehensive training in curriculum development is provided for teachers.

11 respondents stated that teachers are partially taught how to develop curriculum in the schooling sector during pre-service training, while 13 respondents stated that teachers are partially taught how to do this during in-service training. 7 and 10 respondents reported that teachers are trained to develop curriculum in the ECCDE sector partially during pre-service and in-service training respectively. Five respondents from the TVET sector reported that teachers are taught how to develop curriculum partially during pre-service training while 9 mentioned that during in-service training, teachers are taught to develop curriculum partially. A small number of respondents reported that teachers are taught to a comprehensive extent how to develop curriculum during pre- and in-service training while three respondents said that teachers are not taught how to do this at all in pre- or in-service training in the ECCDE sector and another five stated that teachers are not trained in curriculum development during both pre- and in-service training. Three respondents stated that they were unsure whether teachers were taught how to develop curriculum for both pre- and in-service training in the TVET sector.



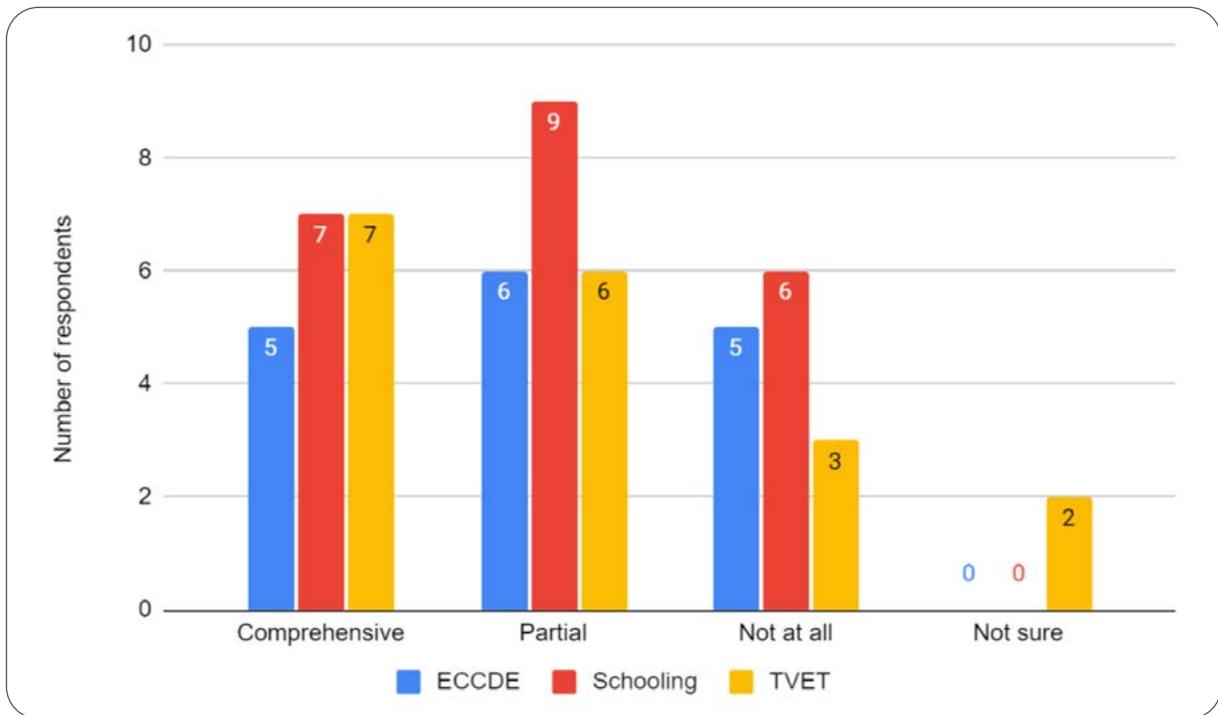


Figure 72: Extent to which teachers taught to formulate and write learning outcomes

According to respondents (n=18), the extent to which teachers are taught to formulate and write learning outcomes varies between countries, and between sectors, with most sectors reporting comprehensive training offerings of below 50%.

In the ECCDE sector, the majority of respondents (50%) indicated that formulating and writing learning outcomes was only 'partially' taught. 38.8% of respondents indicated that training was comprehensive, while a third (33.3%) of respondents answered that formulating and writing learning outcomes was not taught at all. In the schooling sector, comprehensive training was only indicated by 5 respondents (27.7%), the majority of respondents indicated that partial training was provided (50%), and third (33.3%), not at all. The TVET sector appears similar, with only 38.8% of respondents indicating that comprehensive training in the formulation and writing of learning outcomes was provided.



3.12 Curriculum and African Union policy instruments

In this section, respondents (n=25) were asked to indicate the extent to which the national policies on teacher qualifications, professionalism and continuing professional development (CPD) in their countries take a series of African Union instruments into account, including the AU Teacher Qualification Framework, African Framework of Standards and Competences for the Teaching Profession, and the proposed African Continental Qualifications Framework (ACQF). Overall, the highest number of respondents were 'not aware' of any of the three AU policies or instruments, while the fewest number of respondents indicated that the policies were comprehensively taken into account in related national policy. This indicates a need for more engagement with AU member states on the available range of policies, and the benefits of recognising those policies at national level, including for standardisation and professionalisation.

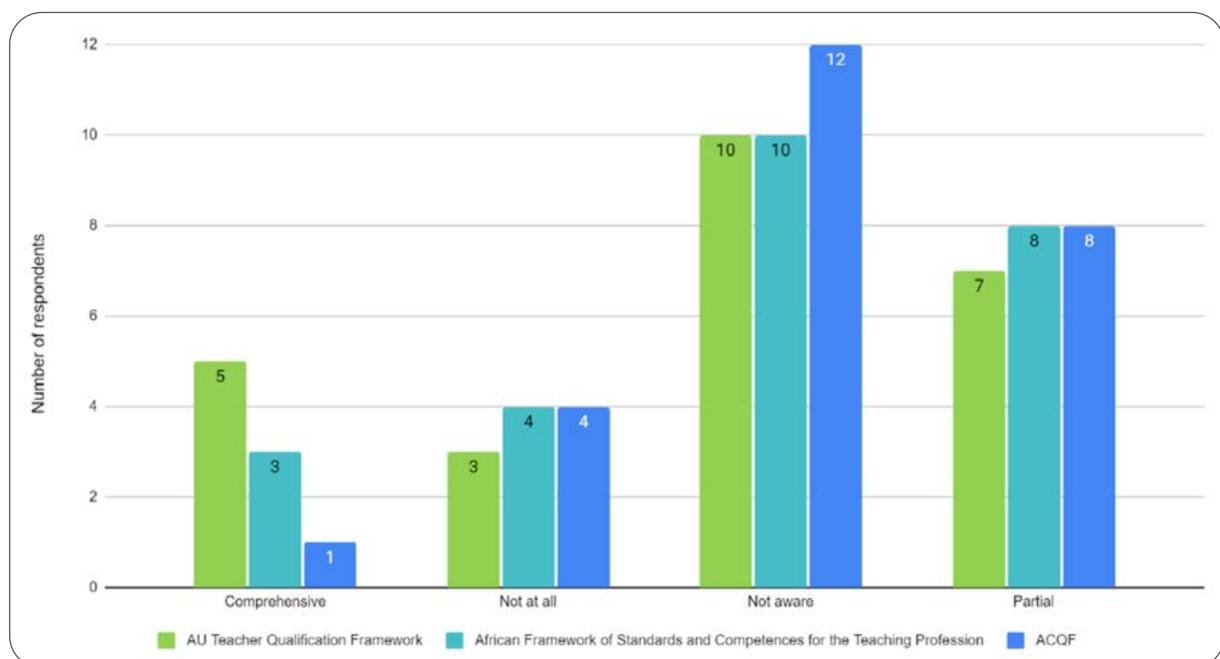


Figure 73: National policies intersection with AU instruments

The ACQF (which is still in development) had the highest number of 'not aware' responses (48%), followed by partial inclusion in national policy (32%). Only one respondent indicated that the ACQF was comprehensively included in national policy, while a further 4 respondents (16%) said 'not at all.' The Framework of Standards and Competences for the teaching profession, and the AU Teacher Qualification Framework followed a similar pattern, with the Teacher Qualification Framework the policy most comprehensively included in national policy in the respondents' countries (20%).

In an effort to realise the AU 2063 Agenda, the CESA 16-25 was developed as a comprehensive 10-year strategy aimed at "reorient[ing] Africa's education and training systems to meet the knowledge, competencies, skills, innovation and creativity required to nurture African core values and promote sustainable development at the national, sub-regional and continental levels" (CESA, 2018). CESA 15-25 includes a set of 12 strategic objectives¹² (SOs) against which countries can measure their performance, ranging from revitalizing the teaching profession (SO 1), harnessing ICT to improve education management systems (SO 3), and strengthening the science and math curricula in youth training (SO 7).

Survey respondents were asked to indicate their country's progress against the Continental Education Strategy for Africa (CESA) 2016-2025.

12. See section 1.1 (Introduction) for a full list of CESA objectives.





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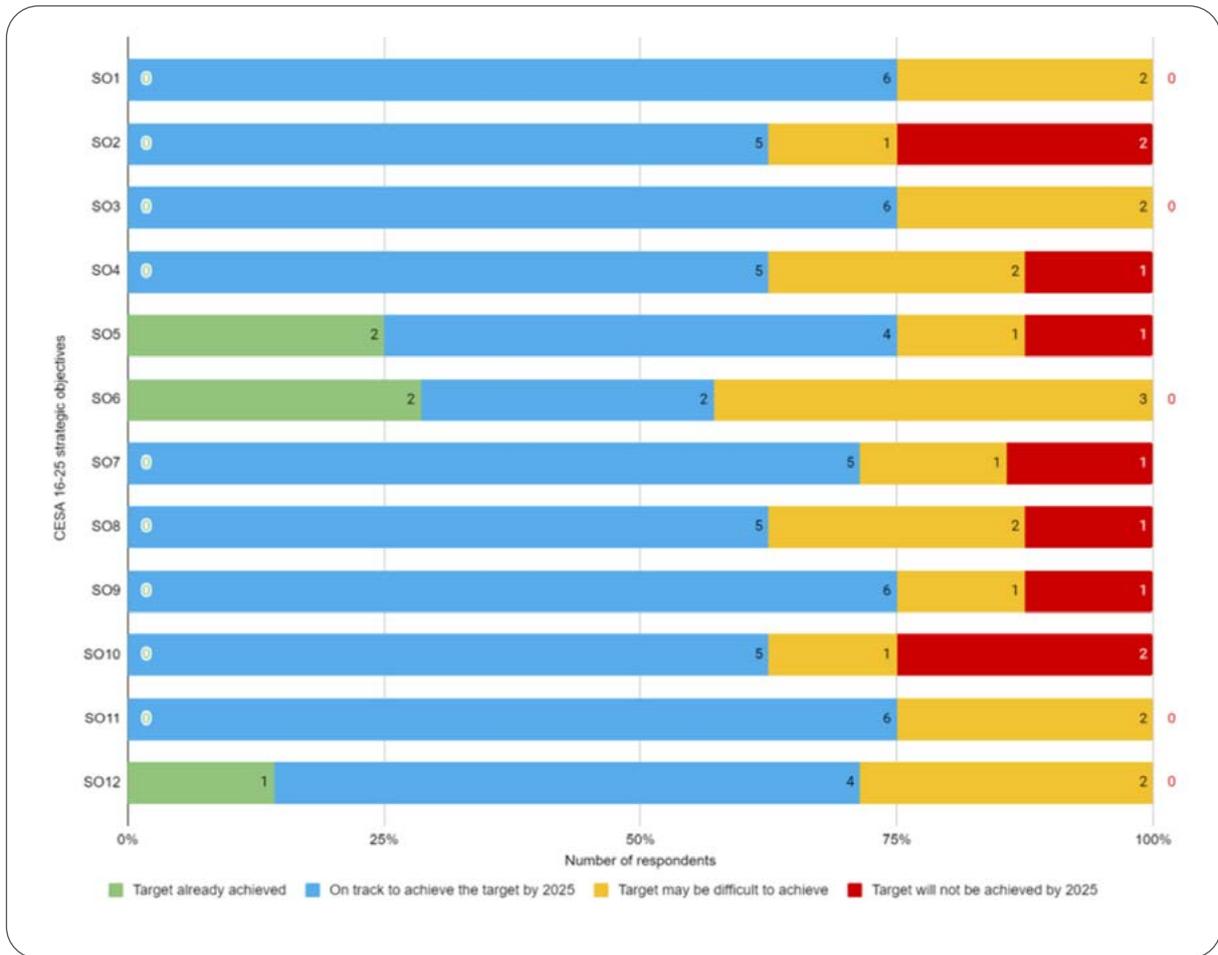


Figure 74: Progress against CESA

In total, only 8 respondents (about a third of all respondents) provided feedback on the progress against the strategic objectives of the Continental Education Strategy for Africa (CESA).

Overall, more than 50% of respondents stated that their countries are on track to achieve the objectives by 2025, aside from the following objectives: accelerate processes leading to gender parity and equity; launch comprehensive and effective literacy programmes across the continent to eradicate the scourge of illiteracy; set up a coalition of stakeholders to facilitate and support activities resulting from the implementation of CESA 16-25. Two respondents reported that their countries have already achieved the target of accelerating processes leading to gender parity and equity and launching comprehensive and effective literacy programmes across the continent to eradicate the scourge of illiteracy.

The findings discussed here provide a starting point from which to assess progress against the 12 CESA strategic objectives listed in the introduction to this report. While respondents indicated that they had mostly either achieved or were on track to achieve the CESA strategic objectives by 2030, on a more general level, the data and findings in this report indicate progress in some areas, while illuminating areas where additional work needs to be carried out.



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3.13 Progress against Sustainable Development Goal 4

Sustainable Development Goal 4 (SDG4) was established in 2015 as one of the United Nations 2030 Agenda for Sustainable Development 17 sustainable development goals. SDG4 aims to ‘ensure inclusive and equitable quality education and promote lifelong learning opportunities for all’. In order to measure progress towards achieving the SDGs, each SDG includes a series of targets and indicators. SDG4 includes 10 different targets ranging from ensuring that “all girls and boys complete free, equitable and quality primary and secondary education”, to “ensure[ing] equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university”, and achieving youth and adult literacy.

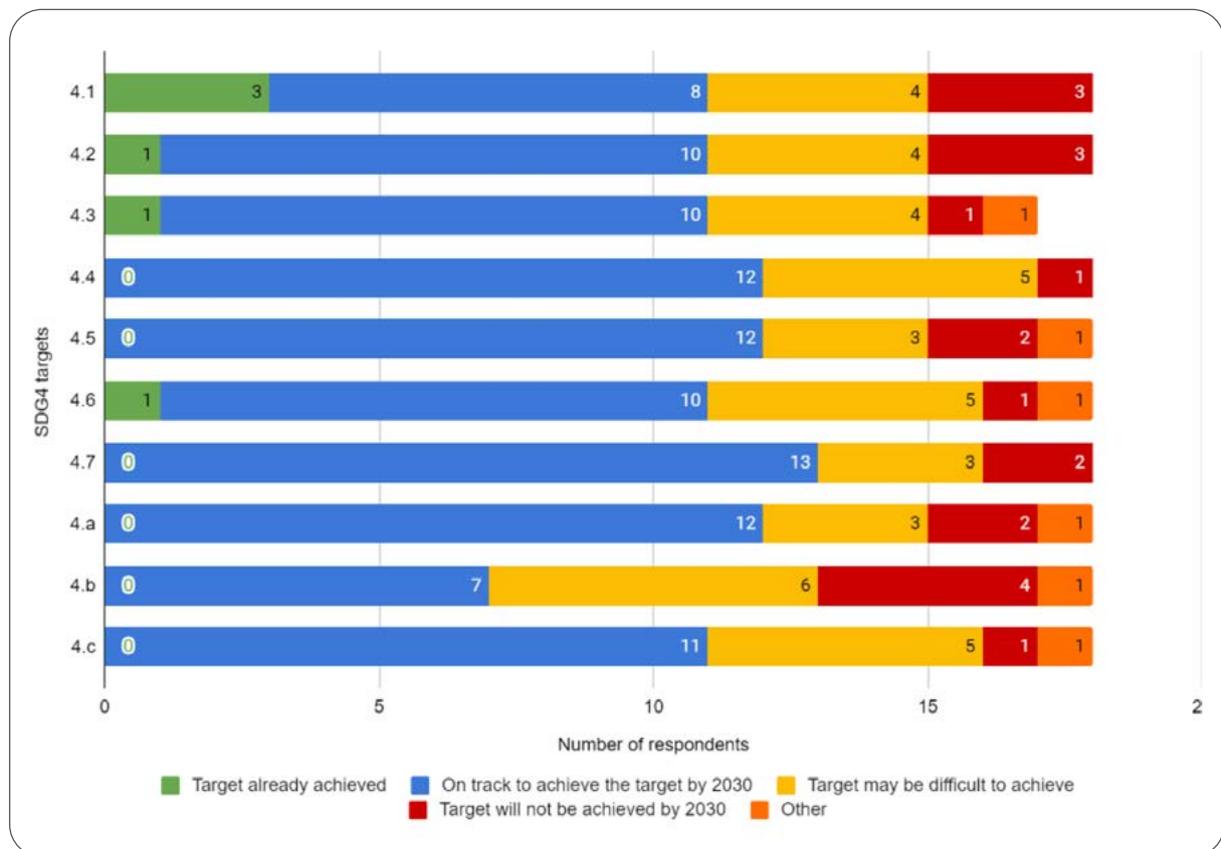


Figure 75: Reported progress against the SDGs

18 respondents provided answers to the progress against the achievement of the SDGs. Overall, there is positive reporting that many countries are on track to achieve the SDG targets by 2030. Between 4-6 respondents reported that various targets may be difficult to achieve by 2030, whilst between 1-4 respondents stated that targets will not be achieved by 2030.



4. LOOKING TO THE FUTURE

Key points

- The following trends have been observed through the mapping study:
 - o An increase in learning outcomes-based approaches across African countries
 - o Gender equity, global citizenship and digitalisation are megatrends
 - o Emergence of teacher professional standards
 - o The promise of a continental systemic assessment regime
 - o Harmonisation of teacher qualifications
 - o Access to digital platforms
- Challenges related to curriculum design and delivery:
 - o Unequal access to technology and the internet
 - o Underutilised African Union policy instruments
 - o Underdeveloped TVET
 - o Lack of data
- Looking to the future:
 - o Curriculum review and reform: the role of ACA
 - o Qualifications frameworks
 - o Suggestions for future mapping surveys
- This curriculum mapping survey conducted in 2021 has provided a first-of-its-kind overview of the state of play of curriculum developments in schooling and TVET, and to some extent also ECCDE, across the African continent.
- This study is however only a starting point for more sophisticated studies that should follow as part of the implementation of CESA and Agenda 2063.

4.1 Introduction

This final chapter of the curriculum mapping report provides a high-level overview of the trends, challenges and new developments drawn from the responses. The overview does not claim to be representative of curriculum related developments across the Continent, but it does provide some useful insights for policy makers and practitioners, more as countries start to plan for the post-Covid-19 era. The chapter ends with some suggestions for future surveys of this nature.



4.2 Trends related to curriculum

4.2.1 Embracing learning outcomes-based approaches

Following curriculum reform initiatives, it is apparent that learning outcomes-based approaches, including competence based education, to education and assessment are increasing across all three sectors. Understood to be inherently learner-centred, and suitable for solving complex problems, the prevalence learner-centeredness as a philosophy in African curriculum is part of a broad global movement to equip learners and students with the appropriate skills, knowledge, attitudes, and increasingly values, in-demand in the labour market. This type of approach complements other aspects of changing curriculum, including the need to develop 21st century skills, increase employability, and green skills.

There is strong evidence to support the notion that the shift towards learning outcomes is closely associated with the introduction of NQFs, but also increasingly RQFs. The development of the ACQF as a continental learning outcomes-based model will in all likelihood further accelerate this trend. Of importance will be the review and analysis, using empirical evidence, of the relationships between the learning outcomes approach and achieved learning outcomes, possibly even improved employability. Internationally this evidence is limited, and it would be expected that the African Continent will not be any different. There is however an important opportunity to leverage the current momentum towards learning outcomes-based curricula, qualifications and learning programmes towards greater harmonisation and the achievement of many of the CESA strategic objectives, despite the negative impact of the Covid-19 pandemic. This opportunity to “build back better” should not be wasted.

4.2.2 Megatrends: gender equity, global citizenship and digitalisation

The *AUC's Second Continental Report on the Implementation of Agenda 2063* (AUC & NEPAD, 2022) provides an important overview of the Continent's performance to date. The report notes significant achievements (scored at 84%) “in the area of economic integration with some countries demonstrating a growing commitment to advancing continental integration, as evidenced from the signature of the African Continental Free Trade Agreement (AfCFTA) by all AU Member States but one” (p.30). A more varied performance is reported in the area of digitalisation, while a more modest score of 67% is attributed to progress towards the achievement of *Aspiration 6: An Africa whose Development is People Driven, Relying on the Potential of the African People, which includes gender equality*.

A number of megatrends have very specific relevance for African nations. The OECD's Trends Shaping Education 2019 provides an outline of the key social, demographic and economic ‘megatrends’ shaping education in the 21st century. These include familiar trends related to shifting global economic power, human migration, economic, national environmental, and digital security, the rise of AI, and the importance of gender, and ethics at home and in the workplace. But, for African and other developing nations, global megatrends need to be appropriately contextualised to complement the foundations of basic numeracy and literacy, solid primary and secondary education (Nsamenang and Tchombe 2011)”.

Population growth, the pressing need for youth employment, and increasing rural-urban migration place considerable and increasing demand on African education systems. The inclusion of themes such as gender equity, global citizenship, digitalisation, and employability in curricula are also reflective of curriculum responses to global megatrends. Encouragingly, the inclusion of major themes such as norms, values, and culture, education for wider universal values supporting mobility, and harmonisation indicate a broad shift away from 19th and 20th century models of education towards more inclusive approaches emphasising cooperation, interdependence and shared values. This is also encouraging for the work being carried out by the ACA in the ACQF project.

13. <https://www.oecd.org/education/ceri/trends-shaping-education-22187049.htm>





4.2.3 Emergence of teacher professional standards

There is certainly scope for further engagement with member states in terms of establishing standards and competences for the teaching profession, and for harmonising teacher qualifications between AU member states. As discussed in this report, in addition to a broad move towards learning outcomes-based education and assessment, a number of countries have indicated that Covid-19 has been the catalyst for curriculum review. As discussed in the introduction to this report, in order to be successful, any revision of curriculum will have to be accompanied by adequate pre-service, in-service, and continuous professional development training for teachers to ensure that curriculum is implemented effectively.

In terms of CESA 16-25 strategic objectives, this point links directly to strategic objective 1: *Revitalize the teaching profession to ensure quality and relevance at all levels of education*. The data collected in this report suggests that further work needs to be done in terms of ensuring quality at all levels of education, and across all African states. While respondents report that the schooling sector is relatively well covered in terms of content standards and professionalisation standards, the same cannot be said for the ECCDE or TVET sectors. Likewise, the prevalence of CPD was most reported in the schooling sector, but not for ECCDE or TVET. This, as well as evident confusion about the minimum ISCED Level qualifications required to teach in respondents' countries can partly be resolved through greater promotion and use of the African Union's policy instruments.

The African Federation of Teacher Regulatory Authorities (AFTRA) is well positioned to champion the professional of the teaching profession in Africa, including the wider and more harmonised use of teacher professional standards. The development of the African Union's *Continental Teacher Qualification Framework, Continental Framework of Competences and Standards for the Teaching Profession*, and Continental Guidelines for the Teaching Profession are all developments that can provide a strong foundation for the work ahead.

4.2.3 The promise of a continental systemic assessment regime

The mapping study has shown that from the sample of countries that participated, 37% are involved in in the Programme for the Analysis of Education Systems (PASEC)¹⁴ assessment for Francophone countries, while the same proportion participate in the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ)¹⁵ assessment. The same ratio of countries, also 37%, reported involvement in the international TIMSS assessment. The trend that more than a third of countries are involved in a regional and/or international assessment is encouraging, but still very low¹⁶. The opportunity certainly presents itself for a more harmonised continental assessment to be developed and implemented in the next five to ten years. Such an assessment could draw on the regional experiences of PASEC and SACMEQ and develop this further into a wider and more comprehensive assessment for all African member states. Such an assessment could tie in well with the CESA indicator framework being developed by the AUC.

Key will be to consider equitable access to any future continental assessment regime in terms of its design, administration, but also critically, data and analysis. A further important consideration will be benchmarking with other international assessments where appropriate. Agreed standards for data privacy will also be essential.

14. [PASEC 2019](#) included participants from: Benin, Burkina Faso, Burundi, Cameroon, Congo, Cote d'Ivoire, Gabon, Guinea, Madagascar, Mali, Niger, Democratic Republic of Congo, Senegal, Chad and Togo.

15. [SACMEQ](#) includes Angola, Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (mainland), Tanzania (Zanzibar), Uganda, Zambia and Zimbabwe.

16. Only a handful of African countries participate in other international assessments. [PISA](#) includes Algeria, Mauritius, Morocco and Tunisia, while [TIMSS](#) and [PIRLS](#) includes Egypt, Morocco and South Africa.



4.2.4 Harmonisation of teacher qualifications

This point has partly been covered under the trend towards professional teaching standards, but there is also the need for a very specific focus on the minimum teacher qualifications required to practice across the Continent. The mapping study has shown persistent huge differences between minimum teacher qualifications across sectors and across countries – this while few would argue against the strong link between teacher quality, teacher training and qualifications and the quality of education overall.

The recent approval by the UNESCO General Commission/Conference of ISCED-T bodes well for a renewed impetus for the collection of standardised data related to teacher qualification and teacher training programmes. A new feature of ISCED-T¹⁷ will also be a specific dimension for the collection of data related to teaching practice. AUC Member States are well positioned to benefit from this rollout planned for 2022, negating the need to develop new instruments that may be costly and time consuming.

4.2.5 Access to digital platforms

The international trend towards digital platforms with high levels of interoperability across national data systems is important to take note of. There are also several risks, notably the risk of privatisation of public resources and the green fields reliance that proprietary solutions could impose on less countries. This trend is however growing by the day, imbued by the move towards digitisation that the Covid-19 pandemic has caused. The ACQF itself may move in this direction, although it may be soon to pronounce on this. At the very least, there is an opportunity to provide greater access to open and shared resources for learners of all ages, and all sectors.

4.3 Challenges related to curriculum design and delivery

4.3.1 Unequal access to technology and the internet

A key challenge is technology. CESA strategic objective 3 calls on stakeholders to *Harness the capacity of ICT to improve access, quality and management of education and training systems*. Of immediate importance is the effect of the Covid-19 pandemic, and specifically the need for infrastructure to enable digital and distance learning. Across the board, respondents indicated that their ability to effectively use digital technology was hamstrung by poor and unreliable infrastructure, by excessive cost, or as a consequence of socio-economic status for learners who do not have the means to access digital technology-enabled learning in any form. Recent UNESCO data¹⁷ indicates that African countries experienced an average of 31 weeks of full or partial school closures between March 2020 and November 2021. The UN estimates that school closures have “wiped out 20 years of education gains”, and that progress will continue to decline as school drop-out rates have increased considerably, bearing in mind that women and girl children are disproportionately affected by these events. While Covid-19 acted as the catalyst for the adoption of digital and technology-enabled learning in countries worldwide, there is an urgent, pressing, and well-documented need to ensure equitable access to the infrastructure and technologies necessary for both teachers and learners to use this modality effectively. This will require the inputs of stakeholders at all levels of government, and in the private and non-profit sectors, coupled with the appropriate policy instruments, and underpinned by comprehensive funding mechanisms, and sufficient political will.

17. <https://teachertaskforce.org/blog/evaluating-global-progress-improving-teacher-quality-isced-t-and-other-possible-metrics>

18. <https://en.unesco.org/covid19/educationresponse#durationschoolclosures>





Another technology-related challenge is the incorporation of technology and technology skills in the curriculum. Reflecting the same constraints experienced by countries in implementing digital teaching and learning, the majority of countries surveyed indicated that while technology, as a concept (philosophy) and a skill, is included in the curriculum, the ability of educators to incorporate technologies in day-to-day teaching activities is limited. This is evident in the EC-CDE and schooling sectors, but where it is arguably most problematic is in the TVET curriculum. Given repeated calls by stakeholders for the inclusion of ‘relevant’ digital skills for the coming 4IR, coupled with the demand for graduates with suitable technical skills to enter the workplace, it is a concern that the majority of countries lack the capacity (human, physical, and otherwise) to provide comprehensive workplace-based training experience to TVET learners.

4.3.2 Underutilised African Union policy instruments

Given the uncertainty from respondents about whether or not their national policies take AU policy instruments, such as the Teacher Qualification Framework, African Framework of Standards and Competences for the Teaching Profession, and the proposed African Continental Qualifications Framework (ACQF), it is likely that more engagement between the African Union Commission and AU member states is necessary to promote the uptake of policy at national level. The overall silence regarding the African Continental Teacher Mobility Protocol (CTMP) (see Keevy et al 2019) is another example. It is evident that more emphasis will need to be placed on awareness raising and advocacy should these instruments be given a fighting chance to be implemented.

4.3.3 Underdeveloped TVET

Although a lack of recent data about the true size of the TVET sector on the African continent obscures the picture, the general consensus is that TVET enrolments are lower and the sector less developed than mainstream academic pathways. CESA strategic objective 8: *Expand TVET opportunities at both secondary and tertiary levels and strengthen linkages between the world of work and education and training systems* requires the expansion and improvement of the TVET sector in order to be achieved.

With routes into higher education more costly, and with the mandate of technical and vocational education intended to produce skilled and work-ready graduates for the labour market, the demand for strong, well-resourced TVET systems will only increase. With an increase in ‘modern’ apprenticeships, TVET education is not confined to traditional trades, but increasingly relevant to more service-oriented sectors such as hospitality, tourism, business, sales and marketing. However, with the majority of the reported TVET programmes on offer classed as ‘pre-vocational’, coupled with only partial access to practical training and limited formal internship opportunities, scores of TVET graduates will be ill-equipped to enter the labour market, reducing their employability and exacerbating a youth unemployment and skills shortage crisis.

Of note in this report is the reported lack of articulation pathways between TVET and post-school and higher education sectors. One means of addressing this issue is for countries to invest in comprehensive National Qualifications Frameworks (NQFs) so that sectors can be aligned, allowing for greater student and learner mobility, while enabling and supporting the principle of lifelong learning.

4.3.4 Lack of data

The availability of quality, reliable, and accurate data is an ongoing consideration. For many of the objectives under discussion in this report, and more broadly, for curriculum mapping and alignment activities at national, regional, and continent-level, greater volumes, and better quality data and means of collecting, analysing, and storing that data is a necessity. CESA strategic objective 11 aims to: *Improve management of the education system as well as build and enhance capacity for data collection, management, analysis, communication, and use.*



In terms of the broader African Curriculum Mapping activities, there is a need to increase the available data for purposes of benchmarking and comparison. This is vital for monitoring the progress of ACF activities and achieving the goals of a number of AU and international policies. We suggest that the survey issued as part of this mapping study be reissued in future (perhaps very two years) in order to collect additional data and to monitor progress at regional and country level. Moreover, the number of respondents needs to be expanded to include as many African countries as possible, to increase data collection, but also to increase awareness of the work and activities of the AU Commission, the African Curriculum Association (ACA), and monitor progress against the Continental Education strategy for Africa (CESA).

4.4 Looking to the future

4.4.1 Curriculum review and reform: the role of ACA

Interestingly, respondents from all 16 countries indicated that some type of curriculum review or reform is either planned, or currently underway. Many respondents cited Covid-19 and the impact of the pandemic as the catalyst for review of the curriculum, while interview data suggests review and reform efforts are undertaken at regular intervals. Respondents also reported the inclusion of 21st century skills into the curriculum and the adoption of competency-based education. In terms of curriculum policy, of interest was that 19 policies had been approved in respondent's countries in only the last three years (2018-2021).

This situation presents a clear and immediate opportunity for ACA to play a leading role in the harmonisation of African curricula. The sharing of best practices has in many ways become easier through the wider use of online formats, this could include training, the sharing of curriculum materials, and also strengthened relationships with other clusters at the African Union. ACA could also take a leading role in the move towards more digital platforms, data standards and collaboration across regions and the continent. The notion of an African Curriculum Framework has also been mooted and while this is still at an early stage, ACA is also well positioned to champion this cause.

4.4.2 Qualifications frameworks

In terms of qualifications frameworks and curriculum, it was encouraging to find that the majority of countries surveyed had an NQF in place. Respondents also reported frequent and regular cooperation between qualifications authorities and national qualifications or quality assurance agencies. Overall, this could indicate that there is good systemic coordination and cooperation between the various curriculum and quality assurance entities operating in the education sectors in the majority of countries surveyed. The ACQF process has gained good momentum between 2019 and 2021 and provides an incredibly rich platform for mutual learning and capacity building across both curriculum and NQF developments.

4.4.3 Suggestions for future mapping surveys

The limitations of self-reported survey such as the one being reported on here are numerous. As stated at the outset, this mapping study provides a basis from which future work can be undertaken. In this regard, we would suggest that a standardised survey instrument be used for the collection of longitudinal data - the instruments used during the mapping study could provide a starting point. It will also be wise to consider requesting an official (vetted) response per country, similar to the way UNESCO operates. Such an approach does come with several caveats, but it does promote consistency over years. The electronic administration should be continued as it worked relatively well, even during a time that countries were inundated with requests. Lastly, we would advocate for capacity within the ACA to develop, review and administer a survey of this nature at least every two years.





4.5 Concluding comments

This curriculum mapping survey conducted in 2021 has provided a first-of-its-kind overview of the state of play of curriculum developments in schooling and TVET, and to some extent also ECCDE, across the African continent. Policies and practices have been identified, as well as some trends, similarities and divergences. The interaction between curriculum and qualifications frameworks has also been made clear. This study is however only a starting point for more sophisticated studies that should follow as part of the implementation of CESA and Agenda 2063. The Covid-19 pandemic has starkly illustrated both the continent's vulnerability and its resilience. While at the same time, it is estimated that by 2100, Africa will account for 80% of the projected 4 billion increase in the global population (IMF 2014). Africa is well positioned to harness its youthful population in this future. Relevant and modern curricula will be the cornerstone of the continent's recovery in the coming decades, but also its future. Such generative curricula need to be as much embedded in global trends, as they are uniquely attuned to the rights of and cultural identity of African learners (Nsamenang and Tchombe, 2011).



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