Australian Government
Department of Foreign Affairs and Trade

Diplomatic Academy.

EDUCATION PATHWAYS

Foundation Level
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CONTENTS

ACRONYMS

ABE(T)   Adult Basic Education (and Training)

ICT   Information and Communication Technologies

ISCED   International Standard Classification of Education

PNG   Papua New Guinea

UNESCO   United Nations Educational Scientific and Cultural Organization

1 INTRODUCTION

The purpose of this module is to ensure staff members who engage in policy dialogue with international and domestic partners are informed about strategies to promote flexible, equitable and appropriate learning pathways and investment options to strengthen learning pathways.

It provides a foundation to engage in this topic and apply advice from staff with operational or expert levels of knowledge in education.

2 DEFINING EDUCATION PATHWAYS

'Pathways' is a metaphor used to describe the range of different routes that learners follow as they move into, through and out of an education and training system. Other metaphors used to describe the movement through an education system, include education 'ladders', 'streams' or 'tracks'.

Formal school structures

Pathways represent the reality that modern education systems have a range of different levels of institutions and types of learning programs, so that learners can follow very different routes through the various programs and institutions.

Levels of the education system?

There is a profusion of terms that have developed over the years in different systems to refer to education levels. The most widely accepted system to standardise levels is one developed by UNESCO and known as the International Standard Classification of Education (ISCED) which includes several "Levels" typically known as ISCED Levels.
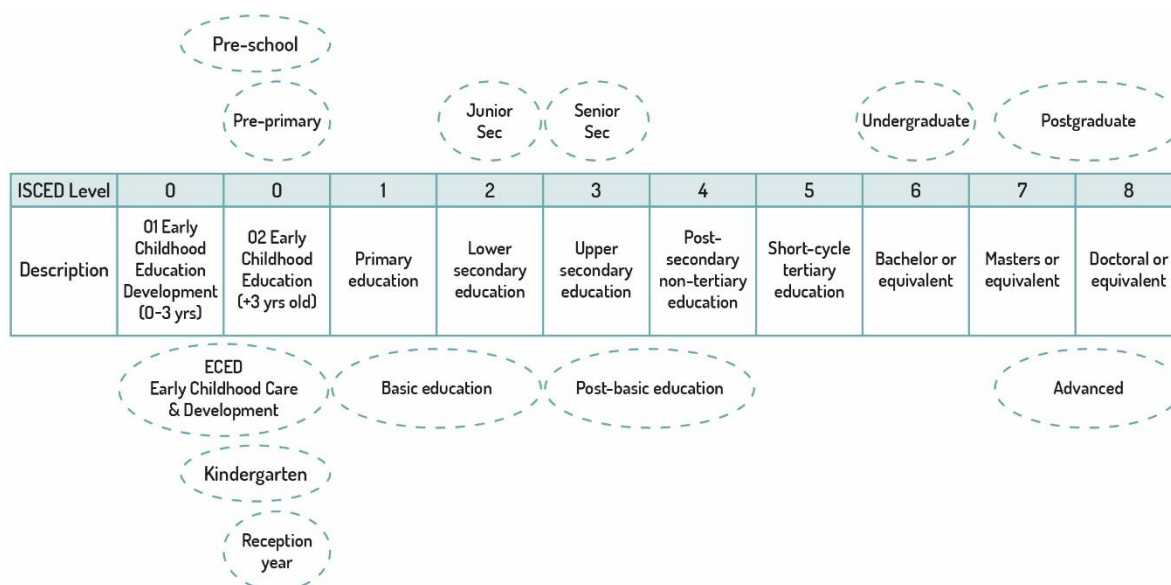
In the following diagram, you will see some of the many different terms for various stages used in different countries, positioned roughly against the relevant ISCED level/s. Bear in mind that these terms are used differently in different countries.

Figure 1 – ISCED education levels

ISCED Level	0	0	1	2	3	4	5	6	7	8
Description	01 Early Childhood Education Development (0-3 yrs)	02 Early Childhood Education (+3 yrs old)	Primary education	Lower secondary education	Upper secondary education	Post-secondary non-tertiary education	Short-cycle tertiary education	Bachelor or equivalent	Masters or equivalent	Doctoral or equivalent

An activity for you

Complete the following table to compare the names for the levels used in your country program or a developing country known to you, and add any new labels in appropriate places.

Once complete, review the number of years' duration of each level and how this varies from country to country in Figure 2, then complete the remaining questions after Figure 2.
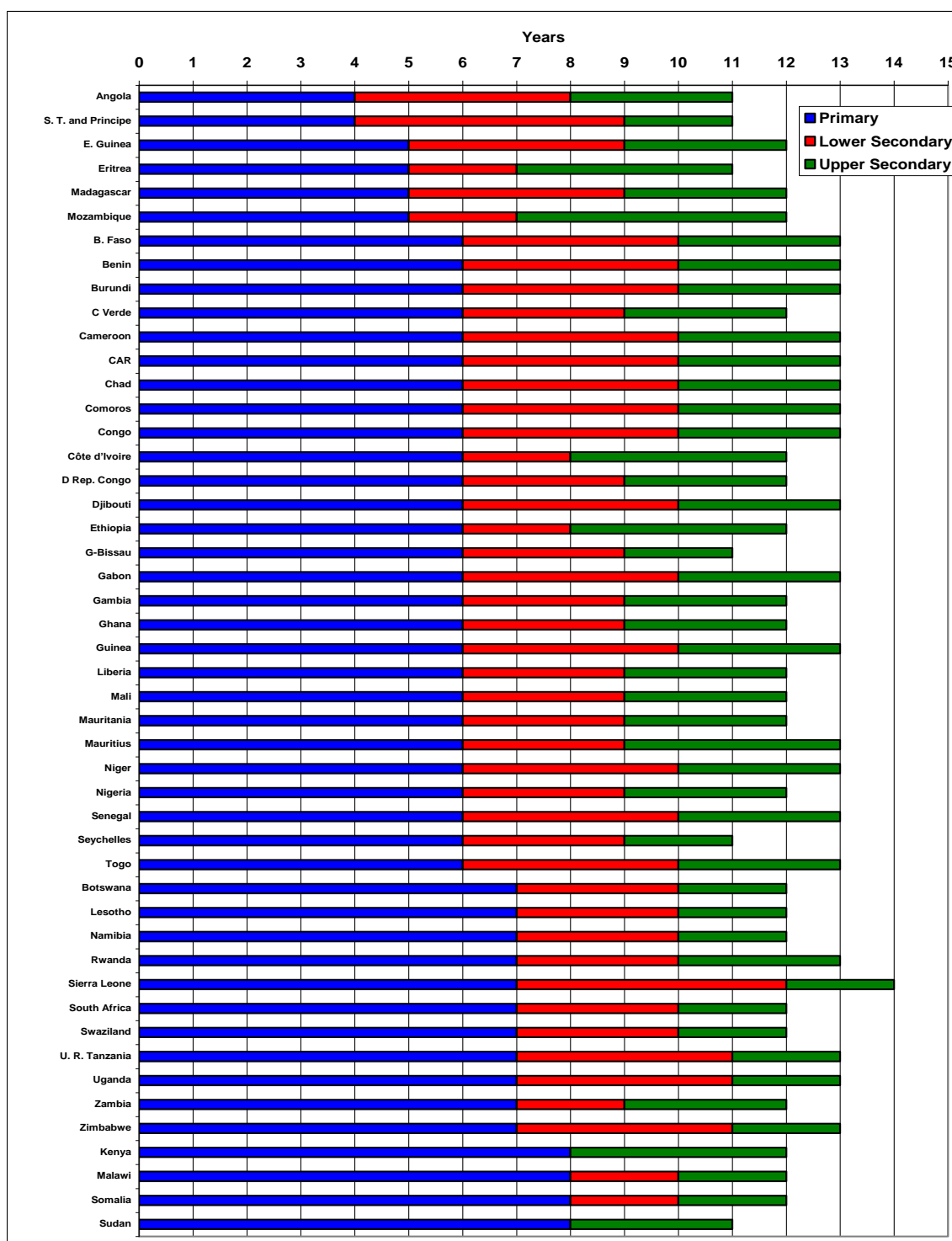
ISCED LEVEL	Description	Other labels
Level 0 (01) Early childhood educational development	Education designed to support early development in preparation for participation in school and society. Programs designed for children below the age of 3.	
Level 0 (02) Pre-primary education	Education designed to support early development in preparation for participation in school and society. Programs designed for children from age 3 to the start of primary education.	
Level 1 Primary education	Programs typically designed to provide students with fundamental skills in reading, writing and mathematics and to establish a solid foundation for learning.	
Level 2 Lower secondary education	First stage of secondary education building on primary education, typically with a more subject-oriented curriculum.	
Level 3	Second/final stage of secondary education preparing for tertiary education and/or providing	

Upper secondary education	skills relevant to employment. Usually with an increased range of subject options and streams.	
Level 4 Post-secondary non-tertiary education	Programs providing learning experiences that build on secondary education and prepare for labour market entry and/or tertiary education. The content is broader than secondary but not as complex as tertiary education.	
Level 5 Short-cycle tertiary education	Short first tertiary programs that are typically practically-based, occupationally-specific and prepare for labour market entry. These programs may also provide a pathway to other tertiary programs.	
Level 6 Bachelor or equivalent	Programs designed to provide intermediate academic and/or professional knowledge, skills and competencies leading to a first tertiary degree or equivalent qualification.	
Level 7 Master or equivalent	Programs designed to provide advanced academic and/or professional knowledge, skills and competencies leading to a second tertiary degree or equivalent qualification.	
Level 8 Doctoral or equivalent	Programs designed primarily to lead to an advanced research qualification, usually concluding with the submission and defence of a substantive dissertation of publishable quality based on original research.	

Source: UNESCO 2011, International Standard Classification of Education

Figure 2 – A table showing how duration of levels of schooling varies in Sub-Saharan African countries.

Note: for more detailed information on length of primary education see The World Bank Data website and UNESCO's Regional overview: Sub-Saharan Africa

An activity for you

Review the previous diagram (Figure 2) and answer the following questions.

Question 1: What is the most common length of primary schooling?

Question 2: Which countries have the longest and shortest school systems?

Question 3: Which of the following factors should determine the length of primary and secondary school cycles? Suggest an order of priority from 1 to 4 for these factors:

- curriculum design and judgements linked to child development

- cost and resource implications

- commitments to equity

- judgements about specialisation and tracking pupils into different streams.

Check your answers.

Question 1: Six years.

Question 2: The shortest are 11 years in total i.e. primary and secondary (Angola, Eritrea, Sao Tome and Principe, Guinea Bissau, Seychelles and Sudan) and the longest is 14 years (Sierra Leone). Shortest primary education is four years (Angola and Sao Tome and Principe) and the longest is eight years (Kenya, Malawi, Somalia and Sudan).

Question 3: There is no ideal answer, but the order in which the factors are listed here is fairly typical of the decision-making criteria used.

Streaming and tracking

For many students, movement through the education system is not simply a vertical progression from one level to the next. Education systems have generally provided differentiated education programs within levels, especially from lower secondary or post-basic levels upward. Many systems provide for different paths within the same levels – a choice of academic, technical or practical subjects is a common variation (often referred to as "tracking") as is a range of different "streams" for students of different abilities (often referred to as "streaming").

Some streaming and/or tracking can make it very difficult for students to change which path they are following, while other systems try to make it easier for students to move between paths, or to customise their own path using a combination of subject choices.

For education pathways, the significance of tracking and streaming is the extent to which

they influence how students are able to progress to the next level or into the labour market.

Note: 'Streaming' and 'tracking' are often used interchangeably, with subject grouping sometimes called 'streams' and ability groups sometimes called 'tracks'. The labels are less important than the concepts.
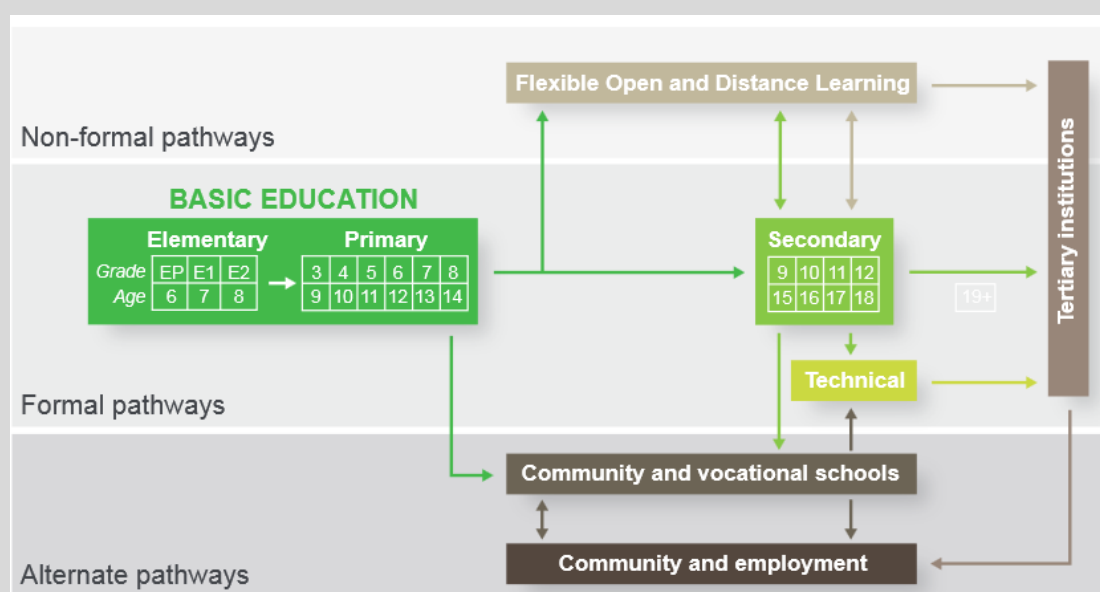
An activity for you

Typical education structures

Each country differs, but it is common practice to represent the structure of the education system in a graphic model. The diagrams below contain two examples of education structures.

Study the diagrams briefly and then note down some significant differences.
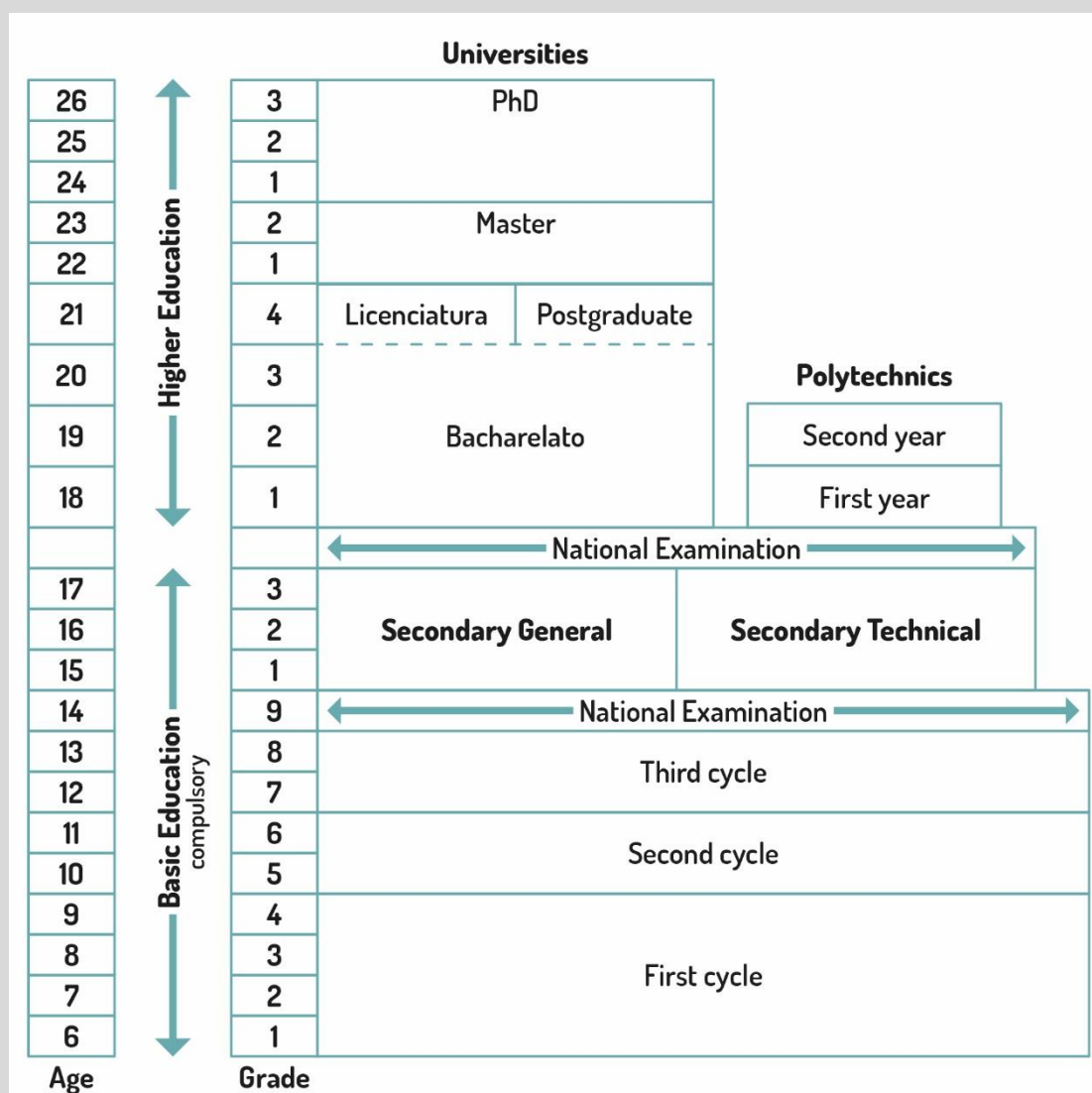
Check your answers after completion.

Figure 3 – Education structure in Papua New Guinea (PNG)

Source: Papua New Guinea Department of Education 2016, National Education Plan 2015-2019: Quality learning for all, p.25

Figure 4 – Education structure in Timor-Leste

Source: República Democrática de Timor-Leste Ministry of Education 2011, National Education Strategic Plan 2011-2030, p.42

Check your answers

Some key differences between the PNG and Timor-Leste systems are listed below.

- The Timor-Leste diagram includes typical ages of students at each level.

- The Timor-Leste diagram shows where examinations determine the path students will follow.

- The PNG diagram includes arrows, to show possible different routes through the system. Some arrows indicated possible movement in either direction.

- The PNG diagram provides a box for 'Community and employment', suggesting paths from schooling into (and out of) communities and/or employment.

- The PNG indicates an 'EP' (for Preparatory) as the first year of the 'Elementary' cycle, but neither diagram refers to any other kind of early childhood education.

- The PNG diagram includes a category of learning called Flexible, Open and Distance Learning which provides a bridge between a number of different levels and also reflects the geography, relative size and education accessibility challenges students face in a large, dispersed and mountainous country.

- The Timor-Leste diagram has a pyramid shape, suggesting that there are more students at the lower levels than the upper levels (although this is not related to the proportions currently enrolled). The PNG diagram does not reflect this dimension.

How does the PNG structure look in reality?

The PNG diagram is taken from the national education plan document and represents the system as it was envisaged. In reality, the system has a somewhat less precise form: Elementary schools are normally three years (grades EP-two), while grades three to six are usually taught in schools called Primary Schools. Schools offering grades seven and eight are often described as 'Pre-Secondary', and the whole cycle before 'Secondary as 'Basic Education.'

The learning from this is that policy may describe a new structure, but it can take many years for the institutions to reflect that structure. These institutional arrangements affect learning pathways.

A pathways approach

The pathways approach attempts to map out the different routes through education from early childhood through to employment. Most modern pathways recognise that different learners will follow different journeys through the various courses and institutions that make up the system. Increasingly, modern systems attempt to be as flexible as possible to

allow students to move through the system (to make their own 'paths').

The PNG system structure diagram, for instance, shows how a student could drop out from primary school into the community (or employment), and then later enter vocational school or transition to secondary school, then move into the post-secondary education and training sectors.

Another learner might enter at pre-school and follow a path straight through the system to university and employment. A third might move from primary to vocational education and then make his/her way to employment, then later through Open and Distance Learning acquire entry to technical and vocational education and training, and on to higher level employment.

Pathways planned and real

In reality, however, learners do not always follow the planned pathways in the orderly way the diagrams imply. Some never enter the system, some enter late, and many drop out (or are "pushed" out). Many repeat a year or more and some re-enter the system after a period away from education. Even within the system, learners may attend very infrequently or irregularly, or they may attend but are unable to learn (silently excluded – see the *Disability Inclusive Education Foundation and Practitioner level* modules for more information). The factors affecting actual pathways through the system and patterns of inclusion and exclusion is reviewed in the final section of this module.

3 TRADITIONAL PATHWAYS VS. ALTERNATIVE PATHWAYS

Traditional and alternative pathways

The notion of 'alternative pathways' implies that there are 'traditional pathways' from which they differ.

- A 'traditional pathway' usually refers to study at an official or formal educational institution (public or private), with students steadily climbing the education ladder from pre-school to primary to secondary, and potentially beyond. A traditional pathway represents a linear progression through the education system.

- In the most general sense, alternative or non-traditional pathways represent non-linear approaches through the education and training system. The PNG structure discussed earlier provides a good example of the multiple ways a student may enter, depart, re-engage and travel through the system. These are therefore, alternatives available to learners.

Mass education and the origin of pathways

As mass education systems became increasingly complex with greater diversities amongst their learners, the 'one-size-fits-all' traditional pathway has resulted in the drop-out, exclusion ('push-out') and grade repetition by more students. Some countries developed

dual-path systems, which 'tracked' or 'streamed' students into academic or vocational paths based on examination results, sometimes at an early age. This deterministic model came to be seen as overly rigid and a major barrier to socio-economic mobility. Over time and in many countries, a range of alternative institutions, programs and pathways have evolved.

Non-formal education

There is a common-sense understanding of formal education (what is learned in official schools teaching official programs) and informal learning (what is learned in the home and community in non-structured interactions). However, the term "non-formal education" is a highly contested term that is applied to a wide range of learning activities, and even to some institutions or programs. The UNESCO definition of non-formal education is:

> *'Any organised and sustained educational activities that do not correspond exactly to the definition of formal education. Non-formal education may therefore take place both within and outside educational institutions, and cater to persons of all ages. Depending on country contexts, it may cover educational programs to impart adult literacy, basic education for out-of-school children, life-skills, work-skills, and general culture. Non-formal education programs do not necessarily follow the 'ladder' system, and may have differing durations, and may or may not confer certification of learning achieved.'*

Source: UNESCO 1997, International standard classification of education: ISCED 1997

Recognition of non-formal education

Some governments now offer, or officially recognise, 'non-formal education' programs (or even qualifications), which makes them 'formal' under many definitions. Since there is no consensus on the definition of the term, it is usually helpful to understand more about the institutional context, the learning program and the linkages to other learning or employment, and to find other labels to describe them.

While most of the institutions and programs involved in providing 'non-formal education' would be described as such in most systems, some follow official curricula, issue recognised certificates, offer linkages to other institutions and programs, and are even offered in schools and government institutions. Thus, the term 'non-traditional' is preferable to non-formal, as it emphasises that these are simply alternatives to the mainstream education programs and institutions, and may be offered through both formal and non-formal channels.

The pages that follow describe a range of learning programs that are often called 'non-formal' education. Together, these learning programs constitute the most common elements of 'non-traditional' or alternative pathways. The below list is not exhaustive, but contains examples of some initiatives.

- **Second chance education programs**: programs that offer school completion for youth and adults who have not completed schooling. These are usually targeted at youths or adults who have dropped out or have been pushed out of school, and who wish to acquire a formal qualification. They are usually offered out of hours,

sometimes in school premises, and usually follow a version of the official curriculum providing either access back into the formal system, or a formal qualification.

- **Accelerated learning**: *'An approach to learning that compresses the time taken to teach and learn the basics of a certain curriculum using learner-centred teaching principles and practices.'*

    Source: USAID 2005, Accelerating Learning For Children In Developing Countries: Joining Research and Practice

    Accelerated learning in developing countries usually refers to programs run for learners who have missed out on a period of schooling. It provides learners with an intense program that enables them to catch-up to their appropriate age level, and often to then re-enter the formal system. It is often provided in separate institutions, but may be offered in schools during or after hours. It usually involves a 'compressed' curriculum, but generally requires enhanced learning strategies to enable students to cover the ground in a shorter period. It usually leads to a formal qualification or re-entry into the formal system.

- **Open and distance learning**: *'A way of studying that allows people to learn where and when they want, and to receive and send written work by mail or email'*.

    Source: Cambridge Dictionary

    Distance learning (also known as correspondence education) is usually undertaken in students' homes outside of formal institutions, although sometimes there are organised 'study groups' or tutorial sessions offered by schools (or entrepreneurs) to support students. Distance learning has made great strides through the use of information and communication technologies (ICT) which permits easier and faster interaction between tutor and learner. 'Open' sometimes implies that there are no minimum entry requirements for an educational program. Many programs have a mix of distance and institution-based learning, and are known as 'mixed mode'.

- **Adult non-formal education**: a wide range of education and training programs offered to adults. Adult non-formal education may be undertaken as evening, short term or full-time courses that focus on life-skills or technical or vocationally relevant skills, or simply satisfy personal interests and pastimes. Commonly offered in adult education centres or schools after hours, but also in a wide range of institutions, and may or may not lead to formal qualifications or certification.

- **Apprenticeship**: *'Method in which trainees learn a craft or trade by hands-on experience while working with a skilled worker, usually under a written agreement'*.

    Source: Business Dictionary

    An alternative to formal skilled training, a large proportion of learning occurs on the job-site, with instruction by a skilled worker. Apprenticeships usually follow a fairly structured program, and are often linked to part-time training in formal institutions. They're generally offered in traditional skills, provide payment and lead to formal, recognised certification. Internships represent less formal apprenticeships in which interns work (often unpaid) for companies or

organisations in order to develop skills and gain experience. Internships are usually less structured and often do not lead to certification.

- **Adult Basic Education (and Training) ABE(T)**: a form of catch-up education for adults, which usually follows the formal curriculum and leads to a basic education qualification.

Adult Basic Education (and Training) may be taught full-time or (more commonly) part-time or in evening classes, often by school teachers using school classrooms or community facilities. Instruction may be more or less formal in nature, and usually follows the formal basic education curriculum and leads to a qualification that is the same as, or equivalent to, the formal qualification for basic education.

Case study: Philippines distance learning

Mindanao is an island affected by decades of conflict where Muslim insurgent groups are seeking autonomy from the central government. This conflict has left Mindanao, home to most of the country's indigenous and Muslim populations, the poorest region of the Philippines. Conflict and instability have limited the government's capacity to provide education services so education participation rates are very low.

The distance learning program in the Philippines aims to reduce the drop-out rate of students, especially in schools situated in conflict-affected areas in Mindanao. Students are able to study at home using a simplified learning program designed to suit their needs.

Case study: Timor-Leste second chance education project

The development objectives of this Second Chance Education Project for Timor-Leste are:

- to increase the number of out-of-school youth and young adults who complete recognized equivalency programs

- to decrease the number and/or rate of leavers from each program and level, thus increasing internal efficiency of the program.

Source: World Bank 2017, Timor-Leste Second Chance Education Project

4 INCLUSIVE PATHWAYS?

Structures that shape formal education systems

The structures that shape formal education systems have to be understood alongside the flow of students through different grades. Access is firstly about the number of children who enter pre-school, and then progress to primary school. Access is an ongoing process – if a child is prevented from going to school, for whatever reason and at whatever stage, they no longer have access.
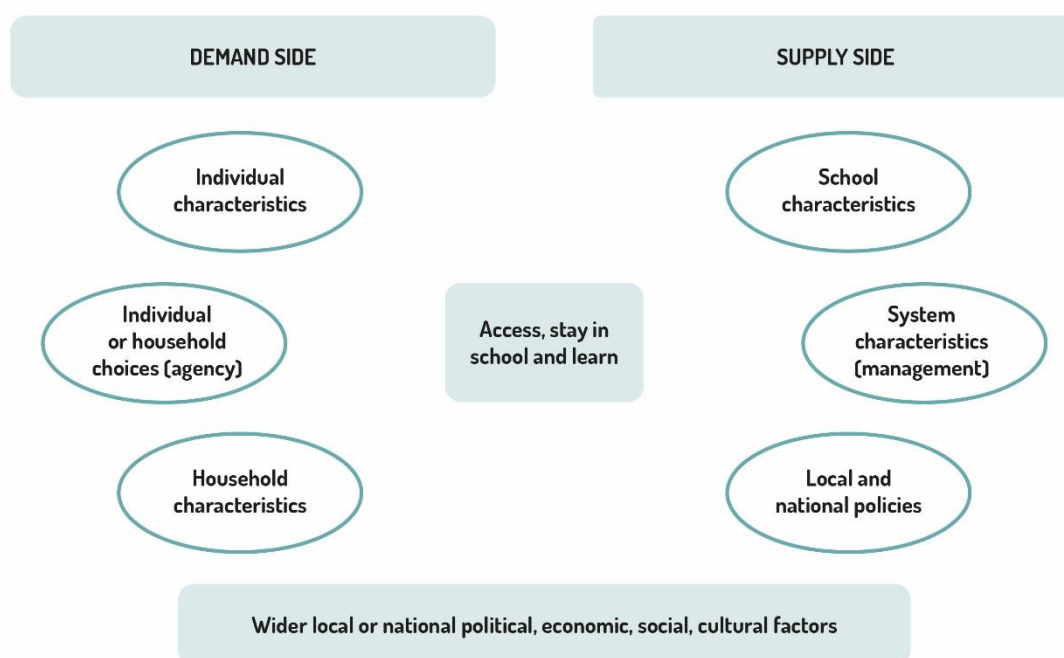
Key indicators that are used to measure student access and progress are **attendance** and **retention**. These are defined as the proportion of children who continue going to school, week by week (attendance) and from grade to grade (retention).

Other important indicators of access and inclusion are **survival rate** (the proportion of students who stay in the school system to the end of primary), and the **transition rate** (the proportion of students who make the transition from one education stage to another, such as the transition from primary to secondary school).

Factors that influence learning in the education system

The following Figure 5 illustrates some of the factors that are likely to influence how learners move through the education system. It also considers whether they are included or excluded as well as when and at what stage. This is shaped by factors on the demand side (children, households and communities who seek access to education) and the supply side (the learning opportunities provided either publicly or privately). Each factor is discussed in turn following.

Figure 5 – A diagram of the factors affecting pathways through education systems

- **Individual characteristics**: an individual's ability, interests or aspirations, age,

gender, position in the family, disability, financial status, cultural or social values can all impact on whether they have access to the education system, whether they stay in or return to it, and the level at which they progress while in the institutions or programs.

- **Household characteristics**: household characteristics are at least as important as individual characteristics. Household income, family size, social and economic status, location (e.g. rural/urban), gender, disability of family members, social, religious and cultural values are all important characteristics that affect access.

- **Individual or household agency**: the choices that individuals and households make are strongly influenced by individual and household characteristics, as well as powerful social, economic and political forces, and by the extent to which individuals and communities have a sense of 'agency' (knowledge and opportunity to make decisions, awareness of that knowledge and opportunity).

- **School characteristics**: the quality of the learning environment in each institution (facilities, personnel, learning materials), and the teaching/learning processes – both often determined by the leadership and management of the institution – have a major impact on inclusion and exclusion, as well as the relationship with the community.

- **System characteristics (management)**: the way in which decision-making authority is distributed, and decisions are made and monitored, together with the accountability systems, especially at the administrative level closest to the school (often the district level) has a strong influence on the access to and progress through the education system.

- **National and local policies**: national and local policies on admission, discrimination, promotion, repetition, exclusion, and national assessment policies (especially examination systems) have a powerful influence over whether, when and how individuals are included, progress or are excluded from institutions and programs.

Alternative pathways and learner-centred education

There are many programs that seek to promote educational reforms that support alternative pathways and learner-centred education, to provide combinations of:

- more effective teaching/instructional methods

- delivery systems that provide educational access to remote and difficult-to-reach populations

- various kinds of accelerated learning and bridging courses for dropouts to enable them to re-enter formal school systems.

Innovative practices and flexible approaches

There are a wide range of innovative practices that promote inclusion and reduce exclusion. These include:

- second chance systems

- remedial and accelerated learning pathways
- safety nets for the poorest women and girls, men and boys, and those with disability.

Alternative education programs

Many alternative education programs are relevant to both primary and lower secondary education. A list of some of the characteristics which are found in many alternative education programs include:

- community based teachers with minimum qualifications, supported by outreach trainers
- 'scripted' lessons planned over a cycle and supported by step-by-step materials and outreach trainers
- 'learning ladders' in core subjects linked to well-designed assessments and attainment targets
- flexible instruction approaches, adapted to learning readiness
- self-paced learning
- peer learning and child to child teaching/methods of instruction
- multi-grade teaching and materials
- curricula adapted to small schools (one to three teacher schools)
- restricted class sizes
- school timetables adapted to local seasonalities (e.g. planting and harvest cycles)
- fee free and cash linked incentives to attend (conditional cash transfers)
- special needs diagnosis and support
- gender equity interventions
- mother-tongue instruction.

5   TEST YOUR KNOWLEDGE

Assessment questions

Answer the following questions by ticking 'True' or 'False'. Once you have selected your answers to all the questions, turn the page to 'The correct answers are...' to check the accuracy of your answers.

Question 1

All countries organise their education systems with six years of primary school, three years of lower secondary school and three years of high school.

Is this statement true or false?   ☐ True   ☐ False

Question 2

The most common length of primary schooling in Asia and Pacific is six years and the most common length of the whole school system is 12 years.

Is this statement true or false?   ☐ True   ☐ False

Question 3

In countries with low performing education systems, less than half the children complete primary school successfully and many fewer go to secondary school.

Is this statement true or false?   ☐ True   ☐ False

Question 4

Pre-school and early childhood care and education are generally considered part of national education systems and are financed by the state.

Is this statement true or false?   ☐ True   ☐ False

Question 5

Access to education is primarily determined by there being enough schools to cover the needs of a population.

Is this statement true or false?   ☐ True   ☐ False

Question 6

Alternative education projects seek to replace formal schools with non-formal education.

Is this statement true or false?   ☐ True   ☐ False

The correct answers are...

Question 1

All countries organise their education systems with six years of primary school, three years of lower secondary school and three years of high school.

This statement is false. There is no standardised pattern, and education systems vary widely from country to country. The UNESCO International Standards for Classification of Education (ISCED) levels provide a basis for comparison between systems, but do not prescribe any individual system.

Question 2

The most common length of primary schooling in Asia and Pacific is six years and the most common length of the whole school system is 12 years.

This statement is true.

Question 3

In countries with low performing education systems, less than half the children complete primary school successfully and many fewer go to secondary school.

This statement is true.

Question 4

Pre-school and early childhood care and education are generally considered part of national education systems and are financed by the state.

This statement is false. Most low income and low enrolment countries have very incomplete coverage of pre-school and early childhood care. Much of what exists is fee paying, and is often organised and run by non-state entities.

Question 5

Access to education is primarily determined by there being enough schools to cover the needs of a population.

This statement is false. Meaningful access requires action on the supply side to ensure services are available (e.g. enough schools, with teachers and learning materials) and attention to the demand side to ensure that education services are attractive, appropriate and useful.

Question 6

Alternative education projects seek to replace formal schools with non-formal education.

This statement is false. There is no single objective for alternative education projects. Some seek to use innovative teaching methods, others have new methods of delivering education, and some seek to do both at the same time. There is a huge variety of alternative education approaches and most are complementary to formal school systems or seek to address the educational needs of those who have dropped out.

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Learn more about…

- UNESCO flexible learning strategies at this website:
  http://www.flexlearnstrategies.net/unesco-resources/

- Multi-grade approaches to learning and teaching at this website:
  http://multigrade.ioe.ac.uk/

- UNSCEO's Learning and Teaching in Multigrade Settings Paper at this website:
  http://multigrade.ioe.ac.uk/fulltext/fulltextLittle.pdf

- Activity Based Learning in Tamil Nadu, India by watching this video: http://activitybasededucation.blogspot.com.au/2011/07/british-council-unicef-abl-in-tamil.html

- UNICEF's Promoting Activity-based Learning in Tamil Nadu: Teachers as Catalysts of Change at this website: http://www.unicef.org/india/resources_2276.htm

- The School for Life in Ghana at this website: https://www.epdc.org/education-data-research/meeting-efa-ghana-school-life

- The USAID Alternative Education principles at this website: https://eccnetwork.net/download/accelerated-education-principles-guide-donors-practitioners-evaluators/

- The World Bank SABER: Systems approach to better Education Results at this website: http://saber.worldbank.org/index.cfm