Conceptual Mind Mapping of Webinar 1 Resource Pack

**Policies to smooth curriculum change**
- Change Management policy
- ICT Policy
- eLearning policy
- Professional development
- e/Textbook policy
- Curriculum policy

**Harmonising technical, social, economic, environmental and political dimensions**

**Theories underpinning CBC**
- Learning theories
- Understanding by design
- Jean Piaget’s Cognitive Development Theory
- Vygotsky’s Social Cultural Theory
- Multiple Intelligence Theory - Howard Gardner
- Instructional design theory

**Key Components of CBC Design**
- Identification of General & specific competencies
- Establish criteria for performance
- Creating learning experiences
- Assessing competency
- Evaluating effectiveness curriculum

**CBC Development Process**
- Current trends in CBC
- CBC vis-à-vis inclusiveness

**CBC Learning Methodologies**
- Inquiry-based
- Problem-based
- Project-based
- Interdisciplinary
- System thinking
- Acting on learning

**Webinar 1 – Plan, Design, develop CBC**

**CBC Designing Process**
- Establishing assessment modalities
- Conducting assessment
- Creating learning experiences
- Mastery learning in CBC

**CBC Planning Process**
- Why CBC right now? What is the problem
- Integrating National priorities & Global Agenda
- Identifying Issue/Problem/Need
- Establishing Team
- Identifying national priorities
- Conducting Analysis
- Conducting Assessment and Analysis

**Backward Design Methodology**

**Constructive Alignment**
- between competency-concept-TSFA-SA

**Key Components of CBC Design**
- Mastery in CBC
- CBA indicators
- 4 CBL
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Strategic

Planning

Designing

Developing

Competency-Based Curriculum
There is an increasing outcry on the quality of education all over the world, and especially in Africa, where it is recognised that children’s enrolment in schools has increased considerably but the quality of learning is unsatisfactory where learners attend schools but learn almost nothing (UNESCO UIS, 2017). 

**Problem Definition**

Acquire knowledge through memorisation of facts to pass tests/exams but without the ability to use the acquired knowledge to solve problems at hand.
### Conceptual Mind Mapping of Webinar 1 Resource Pack

#### Back Map

<table>
<thead>
<tr>
<th>SDG Goals</th>
<th>Education Linked to Other SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1</td>
<td>Education is critical to lifting people out of poverty.</td>
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<tr>
<td>Goal 2</td>
<td>Education plays a key role in helping people move towards more sustainable farming methods, and in understanding nutrition.</td>
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<tr>
<td>Goal 3</td>
<td>Education can make a critical difference to a range of health issues, including early mortality, reproductive health, spread of disease, healthy lifestyles and well-being.</td>
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<tr>
<td>Goal 5</td>
<td>Education for women and girls is particularly important to achieve basic literacy, improve participative skills and abilities, and improve life chances.</td>
</tr>
<tr>
<td>Goal 6</td>
<td>Education and training increase skills and the capacity to use natural resources more sustainably and can promote hygiene.</td>
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<tr>
<td>Goal 7</td>
<td>Educational programmes, particularly non-formal and informal, can promote better energy conservation and uptake of renewable energy sources.</td>
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<tr>
<td>Goal 8</td>
<td>There is a direct link among such areas as economic vitality, entrepreneurship, job market skills and levels of education.</td>
</tr>
<tr>
<td>Goal 9</td>
<td>Education is necessary to develop the skills required to build more resilient infrastructure and more sustainable industrialization.</td>
</tr>
<tr>
<td>Goal 10</td>
<td>Where equally accessible, education makes a proven difference to social and economic inequality.</td>
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<tr>
<td>Goal 11</td>
<td>Education can give people the skills to participate in shaping and maintaining more sustainable cities, and to achieve resilience in disaster situations.</td>
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<tr>
<td>Goal 12</td>
<td>Education can make a critical difference to production patterns (e.g. with regard to the circular economy) and to consumer understanding of more sustainably produced goods and prevention of waste.</td>
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<tr>
<td>Goal 13</td>
<td>Education is key to mass understanding of the impact of climate change and to adaptation and mitigation, particularly at the local level.</td>
</tr>
<tr>
<td>Goal 14</td>
<td>Education is important in developing awareness of the marine environment and building proactive consensus regarding wise and sustainable use.</td>
</tr>
<tr>
<td>Goal 15</td>
<td>Education and training increase skills and capacity to underpin sustainable livelihoods and to conserve natural resources and biodiversity, particularly in threatened environments.</td>
</tr>
<tr>
<td>Goal 16</td>
<td>Social learning is vital to facilitate and ensure participative, inclusive and just societies, as well as social coherence.</td>
</tr>
<tr>
<td>Goal 17</td>
<td>Lifelong learning builds capacity to understand and promote sustainable development policies and practices.</td>
</tr>
</tbody>
</table>

#### Two Examples of National Development Plans

- **Lesotho**
- **Namibia**
• National Curriculum Frameworks, National Assessment Frameworks
• National Constitutions, National Teachers’ Standards
• National Teachers Curriculum framework, Education Acts
• Policies on recruitment of subject panels and advisors
• National Disability Act, Early Childhood Care and Development Policy
• National Language Policies, National Book Policies
• National Qualification frameworks etc.
Social dimension
Social diversity including religion, culture and social groupings affects curriculum development because these characteristics influence the types of topics and methods for teaching information. Developing relevant curriculum takes into account society's expectations, accommodating group traditions and promoting equality.

Technical dimension
The computer technology of the 21st century influences curriculum development at every level of learning.

Environmental dimension
Learning will not be meaningful if what learners learn is not connected to their life, environment and surroundings impact of globalized world.

Political dimension
How politics influences curriculum design and development starts with funding. Both private and public educational institutions rely on funding for hiring personnel, building and maintaining facilities and equipment. Changes in government strategies and policies influence curriculum change. Curriculum is rarely the privilege of a professionally independent body. often curriculum change is a centrally dictated change. Certain agencies and individuals may be created to enforce change in schools and on teachers.

Economic dimension
The state of the economy affect curriculum and budgets for school programmes.
THE COPA MODEL FOR DESIGNING AND DEVELOPING COMPETENCY-BASED CURRICULUM

- **Core Practice Competencies**
  - Identify essential competencies for current practice

- **Competency Outcomes**
  - Create effective outcome statements that integrate the essential competencies

- **Interactive Practice – focus learning**
  - Identify and link effective learning strategies to the outcome statements

- **Competency Performance Examination and Assessment**
  - Identify and utilize effective performance assessment methods to validate the achievement of the desired outcomes

Competency Outcome, Performance Assessment (COPA) model
The firth step: creating learning experience. Once you have defined competencies and criteria for outcomes, think about how students will demonstrate these skills via learning experiences. There are multiple ways to demonstrate these skills, so make sure that the products of assessment – the students’ work – are varied and interesting.

Establishing key competences

The first step: define the purpose for establishing the key competencies and come out with a TOR. Collect information/data using a variety of techniques on the essential professional competencies and map them out into a competency framework.

The second step is to create effective competency outcome statements for the essential competencies (These are clearly worded performance statements or standards that describe expectations for specific professional practice.)

The third step is to identify critical elements within each competency outcome statements and come out with competency groups (milestones or benchmarks) for achieving each competency outcome statements.

The fourth step is establishing criteria for performance. For each of the competences/competencies, create the standards or rubrics by which you can measure the competence. Make sure to describe several levels that define positive and negative competence at this step.
Assessment Modalities

Assessment is done at two levels:

**Level 1: Evaluating the effectiveness of the curriculum**

As the curriculum gets implemented and students begin to develop their competence in various areas, there will be a lot of likely changes. It is therefore important to evaluate the curriculum’s efficacy to deliver competence, refine it to better meet the desired goals and then repeat the process to ensure ongoing effectiveness.

1. Assess the extent to which component competencies of the pilot curriculum were reflective of contemporary practices.
2. Assess the effectiveness of the wording of the competency statements and critical elements.

**The assessment questions**

1. Do the outcome competencies statements and critical element reflect all the essential competencies required for the course?
2. Are the competencies statements and critical elements written to most effectively articulate performance expectations?

**Level 2. Assessing student learning**

- A successful competency based curriculum will enable students to apply and execute knowledge, skills and abilities desired. (Competences)
- To bridge the gap between curriculum and assessment there is a need to structure it during designing.

When assessing the competencies you need to address two important questions.

- Do the students acquire the specified competences by the end of the program?
- If yes, was this acquisition of competences a result of the program?
- You need a variety of assessment methods here for assessing the program –level competencies including formative and summative assessment as well as self-assessment.
Competency indicators identify specific aspects of a competency that are transferable across subject areas or contexts. Competency indicators:

- Focus the scope of each competency
- Help educators determine which aspects of a competency are evident within learning outcomes, learning experiences or assessments
- Describe cognitive, affective or psychomotor behaviors to help identify situations where a competency may be applied or developed. One or more indicators may be used to identify situations that develop a particular competency.

<table>
<thead>
<tr>
<th>Competence</th>
<th>Indicator(s)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>• questioning and analysing evidence, assertions or assumptions</td>
<td>• I explain why I think, believe or act.</td>
</tr>
<tr>
<td></td>
<td>• demonstrating intellectual integrity, fairness and open-mindedness</td>
<td>• I take ethical responsibility for the implications of my thoughts or actions</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>• identifying what is known and what is required to clarify a problem</td>
<td>• I break problems into smaller or simpler parts.</td>
</tr>
<tr>
<td>I can see the table has only skills but should remember we assess, Knowledge, skills and attitudes</td>
<td>• assessing options to generate courses of action</td>
<td>• I choose between independent and collaborative problem-solving approaches.</td>
</tr>
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On the other hand, mastery learning is illustrated by the following scenario:

Mastery Learning Concept

Algebra Mathematics – ALM003
## Competency Group - Cognition

<table>
<thead>
<tr>
<th>Competency Title</th>
<th>Description</th>
<th>Performance statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis/Reasoning</strong></td>
<td>Examines data to grasp issues, draw conclusions, and solve problems.</td>
<td>See below</td>
</tr>
</tbody>
</table>

- Extract gathered data and arrange it in a structure ready for analysis
- Examine the similarity with the initial assumptions
- Compare the hypothesis and the outcomes of the analysis of the data
- Compile a narrative and synthesis reports
<table>
<thead>
<tr>
<th>Competencies/Outcomes</th>
<th>Concepts &amp; Skills</th>
<th>Teaching Strategies &amp; Formative Assessment</th>
<th>Assessment (Summative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21st Century Skill Development</td>
<td>Concepts:</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Skills:</td>
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Exhibit 1: Students require 16 skills for the 21st century
The Backward Design methodology looks at how the ideal graduate should look like, then think of what the learners will need first and targets assessment and instructional strategies around those needs (Wiggins and McTighe, 1998). Backward design starts first with the desired results.
• Decide on the structure of the curriculum, including the layout and how the curriculum elements are linked (aligned) to each other.
• During this process, you should start thinking about the development of learning materials following the design of the curriculum.
• Decide the technology to be used
• Decide the development of the other types of curriculum, including the intended, implemented and the layout of the attained curriculum.
END