



Policy briefing 1

Building a Science Nation: Considerations in the Next Curriculum Review

Pre-school education needs to develop all children's domains to contribute to their life-long creativity and adaptiveness. Its curriculum should be student-centric and dynamic, with literacy being only a part of it. The children should bear explorative skills and opportunities to apply them in their immediate environments. The current Zanzibar pre-school curriculum mostly emphasizes on literacy skills. Its content is saturated and in some cases duplicative. Pre-primary education is fundamental for life-long creativity in the era of knowledge-based economies. Forthcoming curriculum reviews should therefore declutter content, emphasise on exploration and application, and encourage collaboration to grow creativity

Background

Pre-school education needs to develop all children's domains to contribute to their life-long creativity and adaptiveness. Its curriculum should be student-centric and dynamic, with literacy being only a part of it. The children should bear explorative skills and opportunities to apply them in their immediate environments. The current Zanzibar pre-school curriculum mostly emphasizes on literacy skills. Its content is saturated and in some cases duplicative. Pre-primary education is fundamental for life-long creativity in the era of knowledge-based economies. Forthcoming curriculum reviews should therefore declutter content, emphasise on exploration and application, and encourage collaboration to grow creativity.

The Current Pre-school Curriculum in the Zanzibar Education System

The mission of the Zanzibar Education Policy of 2006 is provision of equitable access to quality education for all, and promotion of life-long learning. Also, one objective of the Ministry of Education and Vocational Training (MoEVT) is promoting acquisition and application of knowledge and skills for development of personality and improving life in the society. The MoEVT is one of the multi-sectoral bodies responsible for early childhood education, of which pre-primary education is part of.

The Revolutionary Government of Zanzibar is working to developing a science nation with a critical mass of innovative and problem-solving people, policy and decision-making environment that bases on evidence, and a knowledge-based economy. The pre-school phase of child growth, which is part of early childhood development, is a critical phase of intervention. A child

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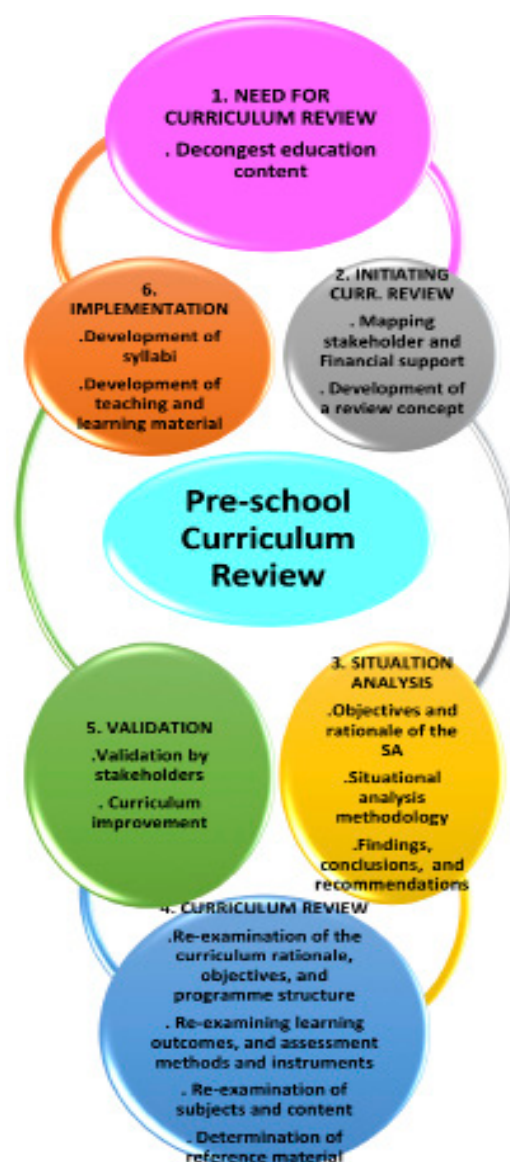


Fig. 1: The process of curriculum review in Zanzibar

provided with good nutrition, and stimulation will develop in the cognitive, affective, social, and psychomotor domains and be a life-long learner. The values, attitudes, norms, and taboos encoded in them during this phase will shape the children and nation permanently. The pre-school curriculum shaping the education of the child must therefore feature systematic, goal-directed interaction. The content should be holistic, co-operative, with multiplicity of interaction, and based on play. Education has to bring out and develop children's own skills, interests, and ambitions through a child-centred learning process.

The current pre-school curriculum of Zanzibar was developed in 2005 and is based on developing the '3Rs', that is Reading, Writing, and Arithmetic, preparing pupils for primary education. It is teacher and subject-centric. It is interactive, but largely focuses on developing children uniformly in various stages of learning. Such an approach is resource-efficient and accommodates teachers with limited formal education and experience.

The education system in Zanzibar has undergone several stages of restructuring. The most recent restructuring saw the reduction of classes from seven to six, and formalised pre-school education. The education content was redistributed within the six classes, and part of the content for the first grade found way into the pre-school classes. This inevitably added to the burden of the children's learning environment, deprives them of independent skills development, capacity to explore, and defaults them to rote learning. Content saturation inhibits creativity and problem-solving in these budding scientists. Given that it is during the pre-school phase when the children also have to study madrasa, it is then critical to restructure the curriculum to desaturate content and provide room for the children to bring out (educare) and develop talent, passion, and skills from within for life-long learning and lifestyle of their choice.

The need and approach to pre-school curriculum review

Curriculum review in Zanzibar is done every six to ten years under the co-ordination of the MoEVT. The last review was in 2012 by the Zanzibar Institute of Education (ZIE), a semi-autonomous organ of the MoEVT. The review begins with the conceptualisation of the need. In principal, the review follows the steps generally shown in Figure 1. review process A review of needs assessment and situational analysis is then conducted. Based on the findings on the assessment and situational analysis, a concept note on the review is developed. The terms of reference are also developed at this stage and evaluated. A report of the needs assessment is developed for action. The responsible institution (ZIE) forms a review team and oversees the development of the curriculum. After the curriculum is developed,

it is shared with stakeholders for review and corrections. Once approved, syllabi are developed with reference to the new curriculum. After the development of the syllabi, needs are assessed and scope and sequence established. Basing on the syllabi, the needs, and scope, textbooks and other teaching and learning material are developed.

It has been eight years since the last pre-school curriculum revision was done. Hindsight in the implementation of the resulting current curriculum shows it is saturated and emphasises on literacy skills. This defaults the pedagogy to rote learning. Therefore, the pedagogy has limited if any means to bring out and develop upon the children's own domains of curiosity, exploration, and application of skills in their immediate environment. Play, which is the children's learning by doing, is considered by many educators an antecedent to discipline and learning rather than it complementing the development of their psychomotor and affective domains. This is in addition to that of cognition, which literacy-based learning focuses on. The next curriculum edition should thus focus on decongesting the curriculum, promote student-centric learning by doing, and de-emphasise the literacy in the 3Rs.

RECOMMENDATIONS

A curriculum is an important element in the value chain that effects competency, problem-solving, and critical thinking in pre-primary school children. The previous sections have discussed some of the elements of priority in the review of the pre-school curriculum in Zanzibar. This is done to promote problem-solving students and a creative nation aspired in the Zanzibar education policy of 2006. The issues requiring immediate attention in this context are decongesting the curriculum content and de-emphasis of literacy teaching in the 3Rs. In addition, the content and pedagogy has to be student-centric and aim to bring out of the children the skills and passion to nurture. Pedagogy has to be collaborative and flexible, and include play. The children should bear explorative skills and opportunities to apply them in their immediate environments. How can this be done? Of course, the pre-school curriculum requires a substantial review. We offer recommendations for consideration to this effect.

- It is important to consider the good practices of countries that have implemented competency-based and problem-solving pre-school curricula successfully. ZIE of MoEVT needs to review the guiding documents and curricula review practices in Kenya, Uganda, and Finland and practically combine these with lessons drawn from the situational analysis for more informed reviews.
- The MoEVT and other stakeholders in the

curriculum review need to adapt the tested and refined curricula review framework of the National Council for Technical Education (NACTE) in addition to those already used. The NACTE framework aims to promote competency-based education. Importantly, the framework guides the systematic development of the curriculum from outcome level to specific outputs, assessment, and learning subjects. This eliminates content duplicity and decongests content.

- The situational analysis methods needs to apply a robust stratified sampling and cover diverse clientele in addition to the traditional stakeholders from government institutions. Additional stakeholders in the representative sample strata should include employers, practicing entrepreneurs, teachers, academicians, researchers, policy and economic planners, operators of innovation hubs and incubators, and mentors in the fields of sports, design, and popular art. The situation analysis reports should be robust.
- The subject content should be developed and served digitally to leverage the advantages of affordable devices and connectivity. Digital content in the form of e-books and multimedia is cheaper, highly interactive, and immediately deployable. Parents, teachers, and students can collaborate effectively in platforms such as Moodle in favour of children's better education.
- The curricula review should be done every five years and not up to ten years as it is now. Shorter iteration cycles enable accommodating the demands of a fast-changing economic and social landscape there is now.

FURTHER READING

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