The Role of Curriculum Objectives and Evaluation in Development of Instructional Efficacy in Special Needs Education among Primary Teacher Trainees in Kenya

Benedicta A. Tabot and Hilda N. Tuimur

ABSTRACT

The success of curriculum implementation in any country depends on the quality of the teacher with regard to the requisite knowledge, skills, and attitudes. In the move toward inclusive education in Kenya (ROK, 2005; ROK, 2009; ROK, 2012a; ROK, 2017), one of the strategies is the expansion of teacher education curriculum to include a component of special needs in order to develop the capacity of the teachers to support children with special needs in regular schools. This paper presents part of the findings of a survey of Primary Teacher Colleges in the Rift Valley region of Kenya on the integration of Special Needs Education (SNE) in the curriculum vis-à-vis instructional efficacy among the teacher trainees. It examines the integration of SNE in the objectives and evaluation elements of the Primary Teacher Education (PTE) curriculum and its role in the development of instructional efficacy among the teacher trainees. The findings revealed that the PTE curriculum did not provide adequate coverage and integration of aspects of SNE in the objectives and evaluation elements of the PTE curriculum and consequently inadequate development of instructional efficacy among the teacher trainees. The study recommends adequate coverage and complete fusion of aspects of SNE in the objectives and evaluation elements of the curriculum as a significant strategy for achieving instructional efficacy among teacher trainees.

Keywords: Evaluation, instructional efficacy, objectives, special needs, teacher education curriculum.

I. INTRODUCTION

The success of curriculum implementation in any country depends on the quality of the teacher with regard to the requisite knowledge, skills, and attitudes. In the move toward inclusive education in Kenya (ROK, 2005; ROK, 2009; ROK, 2012a), one of the strategies is the expansion of the teacher education curriculum to include a component of special needs in order to develop the capacity of the teachers to support children with special needs in regular schools. However, it has been noted that general teachers lack the necessary expertise to adapt the teaching/learning process in an inclusive classroom hence the need to build teacher competencies for inclusive practices (Buli-Holmberg & Jeyaprapathan, 2016).

The need to provide for learners with Special Education Needs (SEN) who may be found in the regular classroom in Kenya necessitated the integration of SNE in the Primary Teacher Education (PTE) curriculum in a bid to enhance instructional efficacy among the general classroom teachers. The underlying principle in curriculum integration is a complete fusion of the main concepts in the aspects of the curriculum in ways that would make learning meaningful to the learners leading to the acquisition of the desired competencies, in this case, instructional efficacy among the teacher trainees undergoing the PTE curriculum. Curriculum integration requires that aspects of SNE be incorporated in all the elements of the PTE curriculum namely objectives, learning experiences, and evaluation.

Despite the integration of SNE in the PTE curriculum (KIE, 1994) and the strengthening of SNE component in the Revised and Rationalized PTE curriculum (KIE, 2004) integration of learners with disabilities in normal schools was termed as professionally unachievable (ROK, 2012a). Though this is blamed on inadequate preparation of the general education teachers, the specific aspects of SNE which are required to provide instructional efficacy to the teacher trainees and how they have been integrated into the elements of the PTE curriculum are not evident in previous studies. The objectives and the evaluation elements of the curriculum are major determinants of the specific curriculum content and the points of emphasis during implementation (Boit et al., 2012; Lunenburg, 2011; Boit, 2010).

Information integration theory by Anderson (Anderson, 1971 cited in Horne, 1985), views individuals as information processors who assign weight to the information they have.
In this regard, instructional efficacy among teacher trainees is determined by the information they have concerning SNE based on what is integrated into the PTE curriculum which, in turn, is based on Tyler’s (1949) organizing elements of the curriculum; that is, objectives, learning experiences, and evaluation. These elements form the integrating thread of the curriculum (Nikolaraizi & Mavropoulou, 2005) and serve as the basis for determining the adequacy of SNE integrated in the PTE curriculum and consequently instructional efficacy.

The objectives, both general and specific, determine not only the nature of the learning experiences but the assessment for and of learning (RoK, 2017). Integration of SNE if reflected in the objectives would be portrayed in the content, learning activities, and methods of teaching as well as the instructional resources. The behavioral objectives reflect the expected learning outcomes (Lunenburg, 2011) and determine the mode of evaluation which has also been noted to determine what is taught (Boit, 2010) and even which objectives to emphasize in the teaching-learning process. An assessment of the extent to which SNE is integrated into the objectives and evaluation elements of the PTE curriculum provides insight into its adequacy in providing teacher trainees with instructional efficacy and guiding principles in the process of designing an effective teacher education curriculum for sustainable curriculum reform.

II. LITERATURE REVIEW

A. Introduction

Teacher education institutions facilitate the education of teachers through the curriculum which is regarded as an important instrument of education. In the Kenyan context, the curriculum is defined as a plan for providing learning opportunities and experiences to the learners in order to achieve the educational goals and specific objectives required by the society (Education Act, Cap 211 cited in RoK, 2012b). The curriculum defines the learning that is expected to take place in a program of study in terms of knowledge, skills, and attitudes, which is outlined in the objectives and reflected in the evaluation.

B. Integration of SNE in the Objectives of the PTE Curriculum

The objectives are expressed in form of what the learner is expected to do at the end of the course. Objectives, therefore, should be concerned with all aspects of the learners’ development, and the acquisition of knowledge, skills, and attitudes (Nicholls & Nicholls, 1978). The objectives should be clearly and precisely stated (Carl, 2012) in order to guide the teaching/learning process. It is based on the set objectives that curriculum planners can sequence the topics to be learned, choose the appropriate teaching methods, and select the necessary instructional resources (Lunenburg, 2011; Claxton, 1992) hence objectives form a rational basis for directing the activities in the classroom (Nicholls & Nicholls, 1978).

Integration of SNE in the PTE curriculum therefore should be reflected in the statement of objectives, as contained in the Education syllabus, since all classroom learning is limited to and guided by what is stated in the objectives (KIE, 2004). However, a study on Primary teacher education by Mwangi (2013) revealed that 92.9% of the lesson objectives were low order hence emphasizing rote learning and recall of learned content instead of learning for understanding. Though the study did not focus on the integration of special needs education, such low order objectives have implications on all aspects of the teaching/learning process as well as evaluation and may affect the development of instructional efficacy among the teacher trainees.

C. Integration of SNE in Evaluation in the PTE Curriculum

The PTE curriculum evaluates its candidates through both the National Mid-course examination and the Primary Teacher Examination which determine the progress and eventual graduation of the teacher trainees as well as their certification for practice as professional teachers (KIE, 2004). Evaluation reveals student mastery of the learning material and the extent to which the expected learning outcomes have been achieved (Poerwanti, 2019; Tyler, 1949). Assessment in PTE, however, has been heavily examination-oriented (Bunyi et al., 2013; Mwangi, 2013) and has been noted to have a backwash effect on teaching and learning in the colleges (Bunyi et al., 2013). The content of these examinations is therefore considered important and consequently affects and determines what is taught (Boit, 2010) and influence the approaches of teaching (Boit et al., 2012). In this regard, all areas that have been planned for (Boit et al., 2012) and skills required of teachers to respond to SEN in the pre-service training program should be taken into account during assessment as recommended in the Salamanca conference (UNESCO, 1994).

III. RESEARCH DESIGN AND METHODOLOGY

Based on a descriptive survey design, questionnaire, interview, and document analysis schedule were used to collect both qualitative and quantitative data from the teacher trainers and trainees in the Primary Teacher Colleges in Rift valley region of Kenya. Document analysis is a systematic examination of relevant documents to determine factors that explain specific phenomena (Kothari, 2004; Mugenda & Mugenda, 2003), was used in analyzing the coverage of SNE in the objectives and evaluation elements of the PTE revised syllabus for Education subject (KIE, 2004), and the past KNEC PTE Education examination papers. Data were analyzed using descriptive statistics whereby frequencies, percentages, and means were calculated using the SPSS computer program version 21 and presented using contingency tables and graphs.

IV. RESULTS AND DISCUSSION

The findings revealed that generally, aspects of SNE were rated inadequate in the statement of both general and specific objectives and the assessment items in the PTE curriculum.

A. Integration of SNE in the Objectives in the PTE Curriculum

General objectives express what the learner is expected to do at the end of the course (Lunenburg, 2011) and give a focus to the education program while specific objectives form

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a rational basis for directing the activities in the classroom (Nicholls & Nicholls, 1978) and reflect the expected learning outcomes (Lunenburg, 2011). Objectives, as outlined in the syllabus, guide the teaching/learning process. The responses of the teacher trainers on the adequacy of the statement of general and specific objectives on SNE in the PTE curriculum are presented in Table I.

### TABLE I: TEACHER TRAINERS’ RATING OF STATEMENT OF OBJECTIVES ON SNE IN THE PTE EDUCATION SYLLABUS

<table>
<thead>
<tr>
<th>Item</th>
<th>Extent of adequacy in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sex</td>
</tr>
<tr>
<td>General objective</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>10</td>
</tr>
<tr>
<td>M</td>
<td>11.8</td>
</tr>
<tr>
<td>Total</td>
<td>11.1</td>
</tr>
<tr>
<td>Specific objective</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>10</td>
</tr>
<tr>
<td>M</td>
<td>17.6</td>
</tr>
<tr>
<td>Total</td>
<td>14.8</td>
</tr>
</tbody>
</table>

As indicated in Table I, a total of 63% of the teacher trainers considered the general objectives in the Education syllabus inadequate while 25.9% indicated adequate. Though 11.1%, were ambivalent, the teacher trainers felt that the general objectives were inadequate, yet objectives play a crucial role in determining and regulating all other activities (Tyler, 1949) and act as a road map for the curriculum implementation process (Lunenburg, 2011). When the objectives are inadequate the other aspects of the curriculum are affected negatively.

An analysis of the PTE Education syllabus further revealed that out of the 11 general objectives of the Education subject outlined, only two (18.2%) general objectives dealt directly with expectations of the teacher trainee with regard to learners with SEN. This finding may account for the trainers’ consideration of the general objectives as inadequate. Further analysis of the syllabus (KIE, 2004) revealed that the two general objectives outlined, covered aspects of the child as the centre of learning, provision of suitable opportunities for children with diverse learning needs, and developing of the individual child’s potential abilities to their maximum through a variety of creative learning experiences as well as identifying and providing support for children with psycho-social difficulties. These objectives are cognizant of the differentiated abilities of learners (KISE, 2003) hence providing a focus on the teacher education programme with respect to learners with special needs and alluding to the need to furnish the teachers with the requisite competencies.

The specific objectives are outlined in the PTE syllabus (KIE, 2004) for every topic in each course of the Education subject to guide the teaching and learning process. The findings as shown in Table I indicate that 59.3% of teacher trainers rated the specific objectives inadequate while 14.8% rated very inadequate giving a total of 74.1% irrespective of the education course taught. An analysis of the Education syllabus was imperative given the importance of specific objectives in directing the teaching/learning process. The analysis per Education course revealed that in Foundations of education which comprise Philosophy of Education, History of Education, Sociology of Education, and Comparative Education, not a single objective was listed on SNE. This is despite the fact that the syllabus outlines various general education topics in which relevant aspects of SNE could be integrated. Such topics include “developments in education after independence as contained in various government documents” and “global trends in education” among others. Integration of SNE in these aspects of the PTE curriculum is the practice in other countries as noted during the Third Teacher Education Conference of 1994. The findings also showed that specific objectives on aspects of SNE are not outlined in the area of Educational Administration and Management, yet what is taught has been noted to be limited by the statement of objectives (Lunenburg, 2011). It is the objectives that determine the content to be taught. This explains why the teacher trainers considered the specific objectives, as stated in the syllabus, inadequate.

In Curriculum Studies and Educational Psychology, several specific objectives that directly relate to various aspects of SNE were identified in the syllabus (KIE, 2004). These include adapting resources to learners with diverse learning needs (in Curriculum Studies), identifying children with special needs in education, and the use of intervention measures to support children with special learning needs (in Educational Psychology). In the second year of study, there was only one specific objective on developing the student teacher’s ability to identify causes, effects, and management of various behavioral and emotional problems in Educational Psychology. All these objectives are precisely and clearly stated (Carl, 2012) and indicate the extent of the content. Moreover, the terminologies used in stating most of the objectives reflect high-level outcomes and stress on learning to ‘do’ which contradicts the findings of Mwangi (2013) and Claxton (1992) respectively. This, therefore, shows that objectives were adequately stated in only two subject areas which explains why the teacher trainers rated the objectives inadequate. This is in line with the findings of Tabot and Osman (2017) in which teacher trainees indicated that knowledge of procedures for identifying and assessing pupils with SEN and intervention measures for pupils with SEN in the general classroom were the least provided for by the PTE curriculum.

It is important to note that inadequate objectives on aspects of SNE and particularly specific objectives, limit the content and the learning experiences and consequently instructional efficacy for SNE among the teacher trainees. Lunenburg (2011) argues that behavioral (specific) objectives must be linked to content to be useful in teaching because the objectives reflect the expected outcomes.

### B. Integration of SNE in Evaluation in the PTE Curriculum

Evaluating the performance of teacher candidates in Cochran-Smith’s (2001) argument begins with the premise of a professional knowledge base that specifies what teachers and teacher candidates should know and be able to do. This implies that aspects of SNE integrated in the PTE curriculum should be contained in the PTE examination in proportion to the general aspects of education. In this regard, teacher trainers’ rating on integration of SNE in evaluation based on the Kenya National Examination Council (KNEC) PTE examination is as presented in the Fig 1.
Coverage of SNE in evaluation, as reflected in the KNEC PTE examination presented in Fig. 1, was regarded as inadequate and very inadequate by 48.2% and 29.6% of the teacher trainers respectively giving a total of 77.8%. This implies that items in the examinations that tested aspects of SNE were not adequate yet studies have shown that emphasis is placed on what is examined during the implementation of the curriculum (Boit, 2010). Moreover, it has been observed particularly in Kenya that the current system of summative assessment dictates the teaching/learning process towards examinations as opposed to learning (ROK, 2012b; Rop et al., 2013) although the single valid measure of a curriculum is the learning which takes place (Otunga et al., 2011).

An analysis of the past PTE examination papers for the years 2007 to 2013 during which time the current revised and rationalized syllabus (KIE, 2004) had been in operation confirmed the views of the teacher trainers. Each of the examination papers comprised a total of fifteen (15) questions presented in two sections. Section A consisted of eleven (11) structured items all of which were compulsory and four (4) structured essays in section B from which the candidates would answer any two questions. Generally, there were very few questions on SNE compared to the general aspects of teacher education as shown in Table II.

Aspects of SNE were not adequately taken into consideration in PTE examinations yet learners are noted to take seriously aspects of the course that are examined (Boit, 2010; ROK, 2012b).

Further analysis revealed that the question items on SNE were limited to a few content areas of special needs notably the provisions of the Children’s Act (2001) and the gifted and mentally talented learners. The latter apparently seemed to receive more emphasis than the other aspects of SEN because an item on the gifted and mentally talented learners appeared in three question papers for the years 2009, 2010, and 2013. There was variation though on the specific aspects ranging from identification and characteristics to support/assistance that could be accorded the gifted and talented in the regular classroom. This possibly could be due to the emphasis placed on this group of learners in the recommendations of the Koech Report (1999) and Sessional Paper No. 1, 2005. The Koech report indicated that the gifted and talented, though found in the regular classroom, are rarely identified and attended to when normal teaching takes place and as such, they may drop out of school hence most of them do not achieve their potential.

Aspects of learning in a curriculum, particularly on aspects of SNE, however, should correspond to the content of the examination as stressed by the Salamanca Framework for Action (1994). The Framework emphasized that the skills required of teachers to respond to SEN in pre-service training programs should be taken into account during the assessment of studies. Examinations should include all areas that have been planned for in the curriculum so that the educators and the trainees can take seriously every aspect of the curriculum (Boit et al., 2012). Otherwise taking into consideration the emphasis placed on examinations in the Kenyan education system in determining the progression of the learner (KIE, 2004), it implies that teacher trainees do not take seriously aspects of SNE because they are given less weight in the PTE examination.

There was variation in mark allocation depending on whether the item was in section A or B of the examination papers. In all the question papers as shown in Table II, the items on SNE were in Section A and were allocated between five (5) and fifteen (15) marks which translates to 5–15% of the total marks. This is with the exception of the question paper for the year 2013, in which, though allocated 25 marks, one of the items in section B (20 marks) was not compulsory hence a learner could opt not to attempt and consequently may not take seriously aspects of SNE during the teaching/learning process. Such a decision would affect adversely the acquisition of the desired competencies and instructional efficacy in SNE by the trainees. A comment by one teacher trainee in the open-response items suffices to exemplify this thus: ‘I am not serious (on aspects of SNE) because it is less tested’. This is in agreement with previous findings that what is tested is given more emphasis in the teaching/learning process (Boit, 2010) and vice versa.

Instructional efficacy is determined by the knowledge, skills, and attitudes attained hence the questions were further analyzed based on Bloom’s taxonomy of objectives. As shown in Table II, it was noted that the phrasing of the questions majorly tested the cognitive domain (knowledge) with little on psychomotor (skills) and none on the affective

### TABLE I: COVERAGE OF SNE IN KNEC PTE EXAMINATION PAPERS PER YEAR

<table>
<thead>
<tr>
<th>Exam Year</th>
<th>Total Items on SNE</th>
<th>Mark (%)</th>
<th>Domain</th>
<th>Level of Question (Active verb used)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>3(20.0)</td>
<td>15</td>
<td>Cognitive* Psychomotor</td>
<td>Give, Suggest</td>
</tr>
<tr>
<td>2009</td>
<td>1(6.7)</td>
<td>6</td>
<td>Cognitive</td>
<td>State</td>
</tr>
<tr>
<td>2010</td>
<td>1(6.7)</td>
<td>7</td>
<td>Cognitive</td>
<td>Give, Identify</td>
</tr>
<tr>
<td>2011</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2012</td>
<td>1(6.7)</td>
<td>6</td>
<td>Cognitive Psychomotor</td>
<td>Suggest, Identify</td>
</tr>
<tr>
<td>2013</td>
<td>2(13.3)</td>
<td>25</td>
<td>Cognitive Psychomotor</td>
<td>Explain, Describe</td>
</tr>
</tbody>
</table>

- No item.
- * Two items.

In each of the examination papers, only a few questions covered aspects of SNE in each of the years. The highest number of question items on SNE was three out of a total of 15 items in 2008. It is surprising to note that in the years 2007 and 2011 there was no single question item on aspects of SNE in the PTE Education examination.
(attitudes) yet teacher educators need to teach and assess for professional dispositions as well (LeBlanc & Gallavan, 2009). Most of the question items in section A in the knowledge and skill domains were low order questions that solicited recall responses which may be a reflection of low order objectives as revealed by previous studies (KIE, 2004; Mwangi, 2013). This is evidenced by the active verbs commonly used on the questions such as ‘give’, ‘state’, ‘outline’, and ‘identify’. Though higher-order questions were mostly used in section B as evidenced by the use of such phrases as ‘describe’, ‘explain’, ‘discuss’, and ‘suggest’, most of the questions on SNE were in section A. This is an indication that the emphasis is majorly on recall for purposes of passing examinations (Boit, 2010; Bunyi et al., 2013; Mwangi, 2013). This implies that evaluation in the PTE curriculum is oriented to learning “in order to know” rather than “in order to do” (Claxton, 1992) hence may not contribute to instructional efficacy. This finding is similar to that cited by Darling-Hammond (2002) where the teacher candidates could not always discuss how they would apply their understanding of responding to students with SEN to instructional practices and the findings of Tabot and Too (2017) that teacher trainees considered the PTE curriculum inadequate in providing them with skills.

VI. CONCLUSION

Despite the integration of aspects of SNE in the PTE curriculum, many aspects of SNE that required an inclusive teacher were not adequate in the objectives and evaluation elements of the curriculum and the coverage was mainly on learning to ‘know’ rather than learning to ‘do’. The general and specific objectives, though cognizant of the differentiated abilities of learners, were inadequate and limited to adapting learning resources and identifying children with SEN. Other important aspects of SNE such as developments in education and global trends in education as well as aspects in the area of educational administration and management were not captured in the specific objectives. Coverage of SNE in the evaluation as reflected in the KNEC PTE examination was inadequate with very few questions on SNE compared to the general aspects of teacher education. The question items were mainly on the provisions of the Children’s Act (2001) and the gifted and mentally talented learners. The PTE curriculum, therefore, did not provide adequate coverage and integration of aspects of SNE in the objectives and evaluation elements of the PTE curriculum. Consequently, the PTE curriculum was inadequate in providing the teacher trainees with instructional efficacy in special needs education.

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