

Estimating Vulnerability in Promoting Inclusive Education in the Philippines

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Abstract Inclusive education ensures that all children have access to an appropriate, relevant, affordable and effective education within their community. Yet, inclusive education is found difficult to build in poorer developing countries. The study looked into the challenges of inclusiveness for teacher education along policy, curriculum, materials, and methodology of State Universities and Colleges (SUCs) in the Philippines offering teacher education programs to estimate their vulnerability. Descriptive survey method of research was employed with the aid of questionnaire checklist which was administered to 89 Deans of the College of Teacher Education of SUCs in the country. Principal component analysis model was obtained and used to determine the coefficients of resilience and vulnerability indices. The study revealed that teacher education institutions in the country were intensely vulnerable in the challenges on policy, curriculum, materials, and methodology. This necessitates that inclusive education policy should be part of the broader dynamics and processes of the policy-making body. Teachers should be learning about, experiencing, and practicing inclusive approaches to teaching and learning throughout their professional development to promoting inclusive education. The needs to be matching revision of the materials used in teacher education programs should be seen essential, and inclusive teaching methodology should be intrinsically linked to and mutually supportive of inclusive curricula.

Keywords: *vulnerability, policy, curriculum, materials, methodology, principal component analysis model*

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1. Introduction

Inclusive teacher education throughout the world is a forefront of open educational discussion. Some countries have been successful in promoting inclusive teacher education that extinguish barriers and create conditions which provided access to education for all. However, in poorer developing countries, some of them are vulnerable to the process of creating an inclusive system due to lack of available funding, administrative and policy level support, and trained personnel like teachers. As a result, some countries face challenges and prefer to begin the process by focusing on single grouping of learners with the long-term goal which eventually include all excluded groups, thus, dragging the promotion of inclusive education.

According to United Nations Educational, Scientific and Cultural Organization [7], inclusive education is a process of addressing and responding to the diverse needs of all learners by increasing participation in learning and reducing exclusion within and from education. This means that all children have the right to a quality education that caters, to the extent possible, to their individual needs. Inclusive education also means that all students attend regular classes and are welcomed by their neighborhood schools in age-appropriate and are supported to learn,

contribute and participate in all aspects of the life of the school [1]. It is pointed out further that inclusive education system must develop and design quality schools, classrooms, programs and activities so that all students regardless of status in life learn and participate together.

Reference [2], however, asserted that inclusive education is difficult to build in poorer developing countries. The disparity stems from the barriers that may be linked to ethnicity, gender, social status, poverty, disability, government funding/support and the like [7]. Likewise, a lack of capacity building opportunities for teachers in accommodating children with disabilities in inclusive settings is a big factor [8]. Hence, the challenge for educators is to find ways of sharing expertise and provide wider educational opportunities for the full implementation of inclusive education [4].

Imbued with the above premise, it is imperative to determine the vulnerability of State Universities and Colleges (SUCs) in the Philippines to promoting inclusive teacher education. In so doing, pre-service teachers are made aware and prepare of the implementation of inclusive education in the country. It is for this reason that this study was conducted to determine the vulnerability estimates of the challenges of inclusiveness for teacher education of SUCs in the country based on the Association of Southeast Asian Nation (ASEAN) experience for the calendar year 2016 along the domains challenge on policy, challenge on curriculum, challenge

on materials, and challenge on methodology. In the end, SUCs could have the basis to advocating inclusiveness for teacher education in the country as conceptualized in the schematic diagram below.

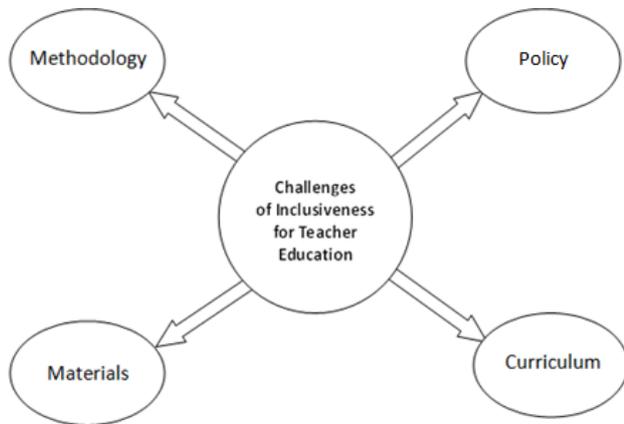


Figure 1. The Conceptual Framework of the Study

2. Methods and Materials

This study used the descriptive survey method of research with the aid of the questionnaire checklist adopted from [5] Promoting Inclusive Teacher Education Series. The questionnaire was sent to 112 Deans of the College of Teacher Education of SUCs in the country through emails to gather data needed in the study from which 89 Deans sent back the responded instrument.

Principal component analysis was employed to determine the coefficients of resilience of the challenges of inclusiveness for teacher education based on challenge on policy, challenge on curriculum, challenge on materials, and challenge on methodology, and the percent of variance of resilience. Resilience was obtained as follows:

$$R = c_1 \text{Pol} + c_2 \text{Cur} + c_3 \text{Mat} + c_4 \text{Met}$$

where: R = Resilience

c_1 = Coefficient of resilience for Policy

c_2 = Coefficient of resilience for Curriculum

c_3 = Coefficient of resilience for Materials

c_4 = Coefficient of resilience for Methodology

Pol = Policy

Cur = Curriculum

Mat = Material

Met = Methodology

Mean was used to determine the overall percent of resilience of the respondents and standard deviation was obtained to determine how far the overall percent of resilience deviate from the mean. Moreover, vulnerability is inversely related to the resiliency on challenge on policy, challenge on curriculum, challenge on materials, and challenge on methodology. Respondents are vulnerable to challenges of inclusiveness for teacher education to the extent that they are not resilient to the challenges. Hence, vulnerability indices of the respondents were calculated based on the formula:

$$V = 1 - R$$

where: V = Vulnerability index

R = Resilience

Mean was also used to determine the overall percent of vulnerability indices of the respondents and standard deviation was obtained to determine how far the overall percent of vulnerability indices deviate from the mean.

3. Results

Figure 2 reveals that inclusiveness for teacher education among State Universities and Colleges (SUCs) in the Philippines experienced insufficient coordination and collaboration within and between government ministries/departments as the top challenge. There was also insufficient coordination between different non-governmental and inter-governmental organizations, government departments, and teacher education institutions. In totality, about 78 percent of the teacher education institutions in the country (77.7%) indicated that the institutions faced challenges on policy of inclusiveness for teacher education. This means that policy of inclusiveness for teacher education is misunderstood as part of a dynamic process.

Figure 3 shows that almost 96 percent of the teacher education institutions in the country (95.5%) indicated that inclusive education is not an integral part of pre-service teacher education curricula which is treated as a stand-alone topic. Likewise, pre-service curriculum weaknesses lead to reliance on in-service teacher education for inclusive education and there is confusion between the concept of special need education and inclusive education. In general, about 62 percent of the surveyed teacher education institutions (61.9%) indicated that they faced the challenges on curriculum of inclusiveness for teacher education. This means that teacher education institutions in the country failed to contextualize the curriculum for educating pre-service teachers of inclusive education.

Figure 4 discloses that teacher education materials promoted negative stereotypes around gender and documenting and sharing of practical experiences remained challenging. Similarly, materials often did not reflect a broad understanding of inclusive education and there was poor recognition of diversity in teacher education materials. On the average, about 82 percent of the teacher education institutions (81.6) in the country faced challenges on materials of inclusiveness for teacher education. This means that teacher education institutions in the country recognize and view that materials are important in any teaching and learning situation.

Figure 5 divulges that teacher education institutions in the country were lack of a systematic approach to welcoming diversity and identifying barriers to inclusive education, lack of relevant formative continuous and authentic assessment, and poor supervision and support of inclusive education. However, only about 34 percent of the teacher education institutions (33.9%) in the country indicated that they faced challenges on methodology of inclusiveness for teacher education. This supports the fact that most teacher education institutions emphasized how teaching and learning is planned, organized, conducted, and assessed within teacher education institutions and schools, yet uncertainly in inclusive education.

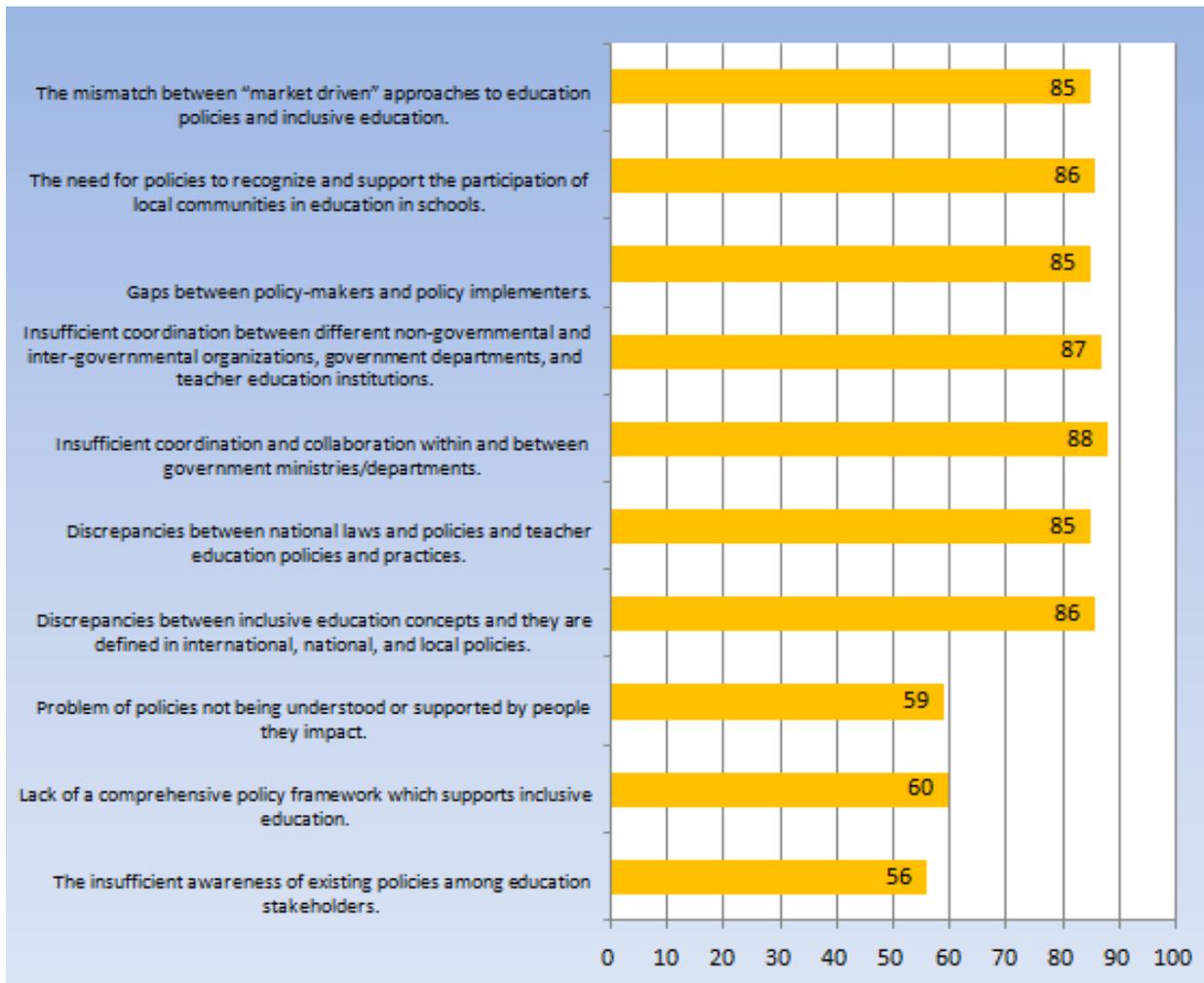


Figure 2. Challenges on Policy of Inclusive Teacher Education

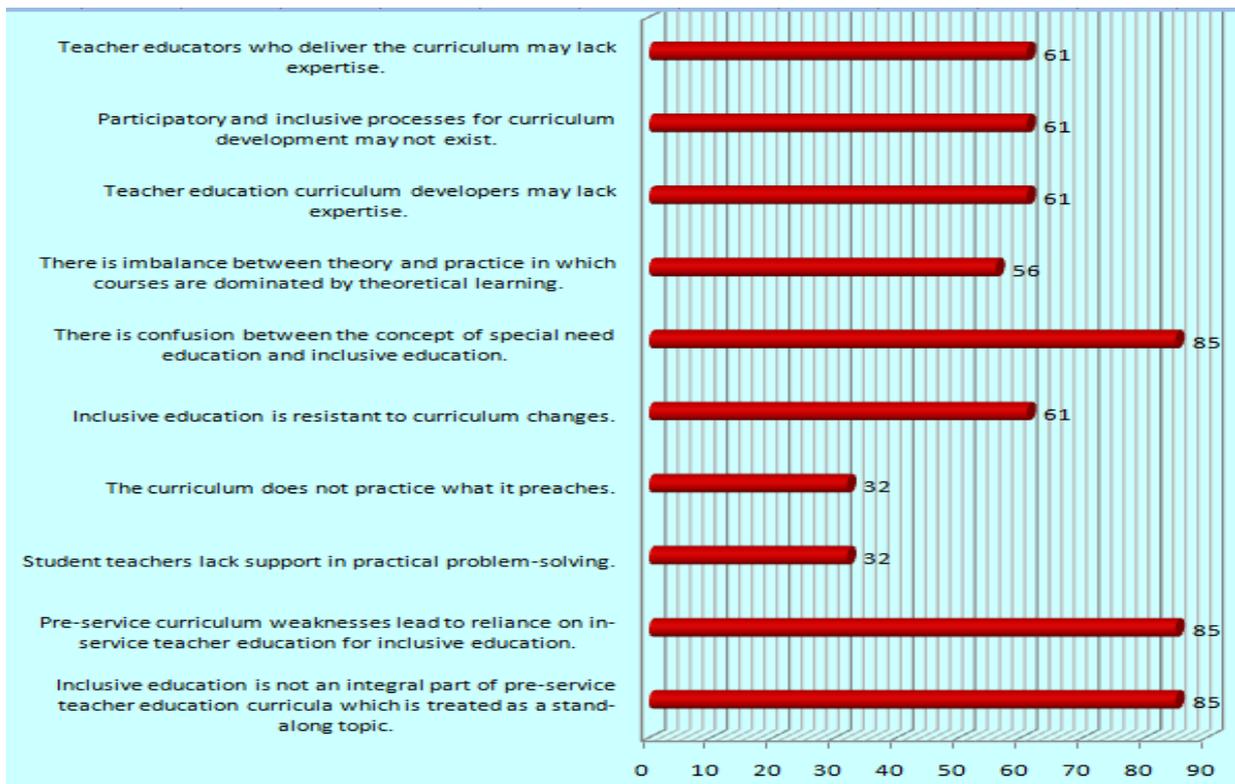


Figure 3. Challenges on Curriculum of Inclusive Teacher Education



Figure 4. Challenges on Materials of Inclusive Teacher Education

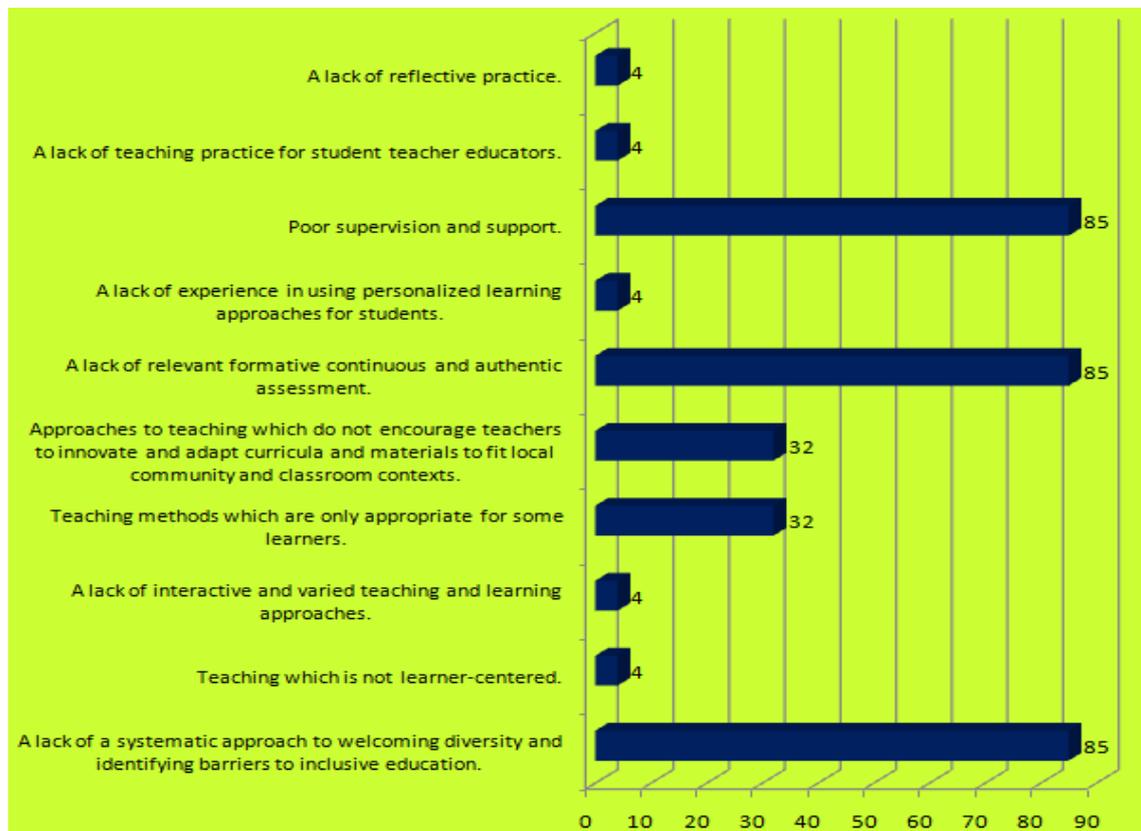


Figure 5. Challenges on Methodology of Inclusive Teacher Education

Table 1. Coefficients of Resilience of the Challenges of Inclusiveness for Teacher Education

Principal Components	Policy (Pol)	Curriculum (Cur)	Materials (Mat)	Methodology (Met)	% of Variance of Resilience
First	-.0706	-0.048	-0.705	0.042	49.9
Second	-0.009	0.707	0.004	0.707	90.7

Table 2. Resilience of the Challenges of Inclusiveness for Teacher Education

Principal Components	Mean	Standard Deviation
First	-12.801	2.114
Second	-7.568	2.306

Table 3. Vulnerability Indices of the Challenges of Inclusiveness for Teacher Education

Principal Components	Mean	Standard Deviation
First	132.00	5.29
Second	81.079	5.764

The principal component is based on finding which variables are most strongly correlated with each component, that is, which of these numbers are large in magnitude and the farthest from zero in either positive or negative direction. In this study, a correlation/resilience value of above 0.5 is deemed important (Online Course, 2014).

Table 1 shows that the first principal component was strongly correlated with the challenges on policy and materials. The table shows further that the first principal component increased with the decreasing challenges of inclusiveness for teacher education along policy and materials. This means that challenges on policy and materials among teacher education of SUCs varied together. However, challenges on materials decreased due to the decreased in the challenges on policy. This follows that teacher education of SUCs in the country would tend to have resiliency on policy and materials and obtain greater opportunity in the implementation of inclusiveness for teacher education compared to curriculum and methodology.

On the other hand, the second principal component increased with increasing challenges of inclusiveness for teacher education of SUCs in the country based on curriculum and methodology. This means that SUCs offering teacher education with high challenges on curriculum also tend to have high challenges on methodology. This supports the fact that curriculum contains the content of what is to be taught along with an overall methodology of how that content is to be taught.

Table 2 reveals that teacher education of SUCs in the Philippines was resilient to none of the challenges of inclusiveness for teacher education along policy, curriculum, materials, and methodology. This means that teacher education of SUCs could not able to implement inclusiveness for teacher education when challenges of inclusiveness for teacher education continue to exist.

A vulnerability index is a measure of the exposure of a teacher education institution to the challenges of inclusiveness for teacher education. The first and second principal components disclosed intensely vulnerable indices (Table 3). Results mean that teacher education institutions of SUCs under survey were intensely vulnerable to the challenges of inclusiveness for teacher

education along policy, curriculum, materials, and methodology. This confirms to the above finding that teacher education of State Universities and Colleges in the Philippines was vulnerable to the challenges to the extent that they (teacher education institutions) were not resilient to them (challenges).

4. Discussion

Thinking about a policy involves more than just thinking about the texts that describe rules, laws, and principles. It also involves thinking about the discussions, debates, and interactions among people, through which the meanings of the concepts and ideas that make up the policy are shaped. According to [5], a policy should not be considered static, rigid or fixed in stone rather it should be understood as part of a dynamic process. In education policy issues and inclusive education specifically, it is necessary to always keep in mind that an education policy is not a standalone area of action but it is part of the broader dynamics and processes of economic and social policy-making. The development of inclusive education is intimately intertwined with inclusive social and economic development. Together, they form the essential basis of inclusive societies.

In the same vein, curriculum is a way of organizing and sequencing learning experiences with the aim of achieving specified learning outcomes. It guides what will be learned, and why and how this learning is facilitated. The curriculum reflects connections between society, politics and schools/teachers, thus, the development of inclusive curricula reflects a desire to develop an equitable and non-discriminatory society [5]. Most importantly, the curriculum followed in teacher education, especially during pre-service programs, shapes teachers' attitudes, knowledge and competencies, and influences their subsequent work with their own students. If inclusive education is to be promoted, therefore, it is vital that teachers are learning about, experiencing and practicing inclusive approaches to teaching and learning from day one of and throughout their professional development.

On the other hand, it is often viewed that, in any teaching and learning situation, materials are important.

For student teachers, materials offer valuable insights into key theoretical concepts, and should convey practical, real-life experiences that help to put the theories into context. In an ideal situation, teacher educators are supporting the development of new teachers who think critically and independently, and who read materials but are also able to draw their own conclusions about the relevance and applicability of what they are reading. Even when student teachers are confident at critiquing what they read, however, it is still important that teacher education materials are student-friendly, high quality, contextually relevant and accessible [5]. Therefore, alongside of any efforts to reform teacher education curricula to prepare teachers for inclusive education, the needs to be matching revision of the materials used in teacher education programs are seen essential.

Moreover, methodology is directly concerned with how inclusive education is actually engaged with in the real world of teacher education institutions, schools and communities [5]. In a broader sense, inclusive teaching methodology is intrinsically linked to and mutually supportive of inclusive curricula. In this context, an inclusive curriculum provides the overall framework within which inclusive teaching methodology is enacted. However, although one may have a curriculum which “ticks all the boxes” in regards to inclusive education content and structure, without an approach to teaching methodology which is itself inclusive, inclusive education is not possible in the classroom realities.

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