Universal Journal of Educational Research 5(7): 1215-1232, 2017

DOI: 10.13189/ujer.2017.050714

# A Mixed Methods Study on Teachers' Perceptions of Readiness of Higher Education Institutions to the Implementation of the K-12 Curriculum

Imee C. Acosta<sup>1,\*</sup>, Alexander S. Acosta<sup>2</sup>

<sup>1</sup>Department of Fashion & Graphic Design, Virginia Commonwealth University, Qatar <sup>2</sup>Department of Administration, Philippine School Doha, Qatar

Copyright©2017 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Abstract The Philippine Educational System is undergoing a major overhaul that shifts from a 10-year education to 12 years known as Enhanced Basic Education Curriculum or K-12. The purpose of this mixed-methods sequential explanatory study was to identify factors that determine readiness of select higher education institutions to the full implementation of the K-12 program. Results were obtained through a survey questionnaire in the quantitative phase and followed up with semi-structured interviews from purposely selected participants. In the quantitative phase, five factors were found to be predictors of readiness, they are: eligibility, staffing guidelines, course streamlining, workforce surplus management, and alternative programs, while in the qualitative follow-up; the phenomenological inquiry yielded five essential themes related to readiness. namely: requalifying the teachers, retooling the teachers, realigning the curriculum, reclassifying the teachers, and redirecting professional development. Both, the quantitative and qualitative findings from the two phases of this study prove that the higher education institutions are ready for the new structure and demonstrate active involvement in ensuring a smooth transition and successful implementation of the new program. Implications and recommendations are provided for policy makers, concerned government institutions, higher education institutions, and teachers to consider in adopting the country's biggest education reform agenda.

**Keywords** Basic Education Reform, K-12 Curriculum, Higher Education Institutions, Readiness, Preparations, Mixed Methods, Sequential Explanatory

#### 1. Introduction

The Philippine constitution stipulates the right of every

Filipino to quality education at all levels. Education occupies a central place in Philippine political, economic, social, and cultural life. It has always been strongly viewed as a pillar of national development and a primary avenue for social and economic mobility [1]. A clear evidence of the value placed on education is the proportion of the national government budget going to the sector [2]. The Department of Education or DepEd is given the highest budget allocation among government agencies each year as required by the 1987 Philippine Constitution, Article XIV, Sec. 5, paragraph 5 [1]. The higher education sector of the Philippines also known as HEIs (Higher Education Institutions) is divided into public, private sectarian and private non-sectarian. All these tertiary level institutions are managed and supervised by the Commission on Higher Education or CHED [3]. However, a college graduate from the Philippines is short of qualifications as compared to graduates from other countries; the result of this, is that, it is not recognized internationally because of the country's 10 year cycle of basic education [4, 5]. A proactive strategy was initiated by the Philippine government through a reform in the educational system. This education reform resulted to implement the K-12 basic education curriculum which aims to address the onslaught of globalization and regional cooperation for the graduates of Higher Education Institutions to be globally competitive [6]. The proposed educational reform in the Philippines is primarily driven by the effort to meet the standards of education in the global world where our graduates with only ten years of basic education are disadvantaged [5] because of non-recognition of the college graduates and their degrees in the international labor arena, non-eligibility of high school graduates to enter overseas tertiary educational institutions, and the inadequacy of global standards [4]. In School Year 2012-2013, the Department of Education implemented the enhanced Basic Education Program or K to 12 also known as Republic Act No. 10533 which was signed into Law in May 15, 2013. This law institutionalized the program and enabled the nationwide implementation making K-12 as the legal framework of Philippine basic education system [7, 8, 9].

Under the new education program, the length of basic education has been expanded by adding two more years to the existing four years of secondary education plus one year of kindergarten; thus, making 13 years to complete basic education. This extension of basic education complements with other countries education system worldwide. The educational shift does not only focus on curriculum enhancement but also aims at producing holistically developed citizens equipped with 21st century skills essential for both life-long learning and employment [10]. DepEd is very optimistic that the K-12 program will augment the inadequacies of the Philippine Education System by enhancing the competitiveness of Filipino graduates and restoring the country's competitive edge over other countries in Asia and the rest of the world [11]. The implementation of the Enhanced Basic Education Program or K-12 posed positive implications to every Filipino college graduate as they will gain automatic recognition in the international labor arena. This change has caused the conduct of stakeholder consultations, policy discourses, and education summits to gather inputs and feedback. However, this remains an issue of inquiries on its implementation and effectiveness. It continuously solicits different responses among various individuals from educators, students, parents, industry leaders, and various stakeholders [7]. Dialogues between and among various agencies and other interest groups should be made to discuss issues and to explore interventions, assistance measures, and to create a unified transition fund in view of the expected losses that will be incurred during the transition period to guarantee smooth implementation of this new educational program.

Similarly, when a country launches a new educational policy, it is important to examine how the policy is interpolated with the existing thought on education. The K-12 curriculum puts a high-value on holistically developed citizen through a combination of education input and curriculum reform [4]. The new program helps Filipino students acquire knowledge, learn skills, and form values that are beneficial for them, whether they choose to proceed to go to further education, to the world of work, or to even start their own businesses after high school [10]. Although on the surface, this reform appears to be seeking the Philippines' inherent values, the outcome it is seeking implies that the K-12 program is ultimately connected to the globalization of education [4]. The Philippine Educational System is a clear example of a boat sailing in a body of changes and challenges. It has in fact followed the same pattern of education as that of the rest of the world [12]. This idea necessitates that by developing one's education means making improvements in the kind of education delivered. The quality of education depends on the clear directions set in the national curriculum which is geared

towards developing further the education of the people to attain economic progress [13].

This paper sought to determine the readiness of higher education institutions to the implementation of the K-12 program in the Philippine education system.

The quantitative phase of this study addresses the factors that influence readiness as to how the faculty-related variables and preparation plan variables, namely: eligibility, staffing guidelines, course streamlining, workforce surplus management, and alternative programs serve as predictors that determine readiness of higher education institutions to the K-12 implementation. The qualitative phase helps determine how the experiences of the participants support, elaborated, and help explain the quantitative dataset about how teachers think of their readiness in carrying out the K-12 curriculum. In this phase, the interview analysis generated essential themes, namely: requalifying the teachers, retooling the teachers, realigning the curriculum, reclassifying the teachers, and redirecting professional development that are found to complement and support the quantitative findings. Thus, to advance and optimize the preparation for the K-12 curriculum, data suggest that eligibility is determined by requalifying the teachers; creating staffing guidelines through retooling the teachers; streamlining courses by realigning the curriculum; managing surplus of workforce by reclassifying the teachers, and create alternative programs by redirecting professional development activities. The effect to which is that, through mixed-methods sequential explanatory approach, it surfaces insight into a new approach to enhance preparation for the K-12 curriculum.

## 2. Theoretical Perspective

The theoretical foundation of this study is based on three theories of readiness for change. On one hand, Prochaska and DiClimente's [14] The Transtheoretical Model (TTM) attends to the role of uncertainty toward change, noting that periods of readiness may be followed by periods of resistance or disengagement [15]. The model suggests that readiness to change is a process taking place over the course of six stages that leads to behavior change [16, 17, 18]. Precontemplation Stage (Not Ready) people in the precontemplation stage do not intend to take action in the foreseeable future. Contemplation (Getting Ready) is the stage in which people intend to change. Preparation (Ready) people plan to undertake change in the immediate future. Action stage, people make specific behavioral changes and actively pursue change. Maintenance stage, individuals strive to avoid resuming old behaviors. Finally, at the termination stage, people no longer worry about resuming old behaviors as the new behaviors have become habit [14, 15, 16, 19].

On the other hand, The Concerns Based Adoption Model (CBAM) Hall [20] and Loucks & Pratt [21] originated in

the field of education to help change agents assist districts, schools, and educators modify their practices. CBAM is a theoretical framework that describes and predicts potential teacher concerns and behaviors throughout the school change process [15]. Each person will respond to a new program with unique attitudes and beliefs, and each person will use a new program differently [22].

Completing these theories, Rogers' [25] Diffusion of Innovation Model seeks to explain how innovations spread through groups [26]. A growing interest in the diffusion of innovations occurred because getting a new idea adopted, even when it has obvious advantages, is often very difficult [25]. The Diffusion of Innovation model looks into how the individuals value and adopt innovation. The relative advantage of an innovation is a comparison of how much it improves the previous generation of similar innovations [15, 27, 28, 29, 30].

These three theories of readiness for change were chosen for a number of reasons; first, they resonate with the researcher's beliefs and understanding of readiness for change. Second, The Transtheoretical Model or TTM's view of readiness to undertake change is characterized by the preparation stage, at which point individuals have considered their options and made a decision to move forward with change, hence, making preparation plans. [15]. Third, The Concerns Based Approach Model showed readiness as an individual process, whereby, interventions, or actions taken to facilitate the change process, need to be targeted to the concerns of the individual [20, 21, 23, 24]. Fourth, in the diffusion of innovation model, readiness to adopt is related to one's relationship to a given innovation, characteristics of the innovation itself, and relationships with others who may or may not attempt to adopt the innovation. The decision to adopt to change is characterized as an "information-seeking and information-processing activity", where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation or change [15]. Importantly, central to these theories, is the recognition that successful implementation of a new program comes when a person decides to adopt change. However, these three models differed in their approach to readiness, but they shared similar elements that complement each other. The principle components of readiness in these models helped identify the factors in the preparation stage, such as staffing guidelines, course streamlining, workforce surplus management, alternative programs that contribute to readiness of the higher education institutions to the full implementation of the K-12 program.

### 3. Method

#### 3.1. Study Design

This study is utilizing Creswell's mixed methods approach which is anchored to a philosophical worldview; pragmatism [31, 32] that recognizes the value of different approaches about how to conduct inquiry [33] where the researcher draws liberally from both quantitative and qualitative assumptions [32]. The practicality of mixed methods research focuses on the notion that individuals tend to problem solve using both numbers and words [34]. The sequential explanatory mixed methods design adopted in this study typically involves two phases: (1) the quantitative phase followed by a (2) qualitative phase that builds directly on the results of the quantitative phase [35, 36]. The quantitative strand or first phase of this study utilized a survey design that provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population [37]. While the qualitative strand or second phase of the study employed a phenomenological design in which the researcher identifies the essence of human experiences about a phenomenon as described by the participants [38, 39, 40]. The researcher was not simply collecting and analyzing both kinds of data; but also involved the use of both approaches in tandem so that the overall strength of a study is greater than either quantitative or qualitative research [41] or of equal importance.

In this design, the quantitative or numeric data is collected and analyzed first, while the qualitative or text data is collected and analyzed second in sequence, that helps explains, elaborates on, or extends the quantitative results obtained in the first phase [36]. In this study, the emphasis was on the second qualitative phase because the researcher used the quantitative information to identify and purposely select participants for follow-up. The in-depth interviews go "beyond the numbers" that were recorded in the quantitative analysis in order to see the richness of real social experience [42]. The two phases of the study were connected in the intermediate stage of the study which is the selection of the participants for qualitative study [36, 41]. The full integration of the findings occurred after both phases have been completed and was elaborated during the discussion of the outcomes of the entire research study. A diagrammatic representation of the mixed methods sequential explanatory design procedures in the study is illustrated in Figure 1.

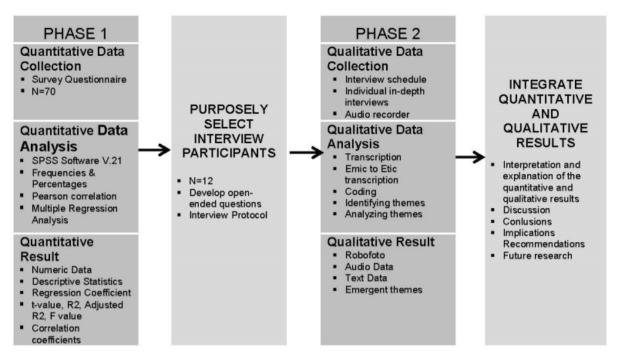


Figure 1. Visual model of the data gathering produces for mixed methods sequential explanatory design (Adapted from Creswell, 2003)

#### 3.2. Research Participants

The research participants were college faculty members or college teachers from different tertiary level or higher education institutions in the Philippines. Purposive sampling technique was utilized wherein the participants were chosen because they are the persons who can provide the needed information by virtue of knowledge and experience [43, 44, 45, 46]. In the quantitative phase, seventy (n=70) college teachers answered the survey questionnaire. The sampling frame in this phase was derived from Miller and Kunce [47] and Halinski and Feldt [48] that when using multiple regression, a ratio of 10 to 1 is sufficient to provide minimal shrinkage of R2. Having ten observations for each independent variable using six or more predictors in regression equations is a conservative ratio but was reported optimal and appropriate [49, 50, 51]. In the qualitative phase, twelve (12) teachers were selected from the 70 participants in the first phase to participate in the semi-structured interview. It is noted that participants in this phase should be purposely selected to be able to help explain in detail and expand the quantitative results [37, 41].

#### 3.3. Quantitative Phase

#### 3.3.1. Quantitative Data Collection

Data were collected through a survey questionnaire. The survey questionnaire was self-created and the survey items were developed based on the analysis of related literature and other secondary source data, such as news articles and journals [52, 53]. The survey items include: faculty-related factors along length of service, eligibility, and courses

taught; preparation plans along course streamlining, staffing guidelines, workforce surplus management, and alternative programs; and readiness. The survey questionnaire was composed of closed questions where respondents were asked to choose from a fixed number of options. These are considered to be efficient because data are easy to collect, code and analyze [54, 55]. The potential problem with this type of questionnaire is that, this does not allow the respondent the opportunity to give a different response to those suggested [56]. To counter this tendency, the survey questionnaire should be reviewed by a diverse group, hence, a panel of experts including the researcher's local adviser were used to analyze the applicability and usefulness of the content and format of the questionnaire. Extra care was taken to see that all the possible response alternatives are included and that these alternatives do not overlap [54, 55]. Data collection started by obtaining permissions from the Deans or Department Heads through a letter that explained the purpose of the study and requested for voluntary participation in the survey. Following the Deans' or Department Heads' acceptance to participate in the study, the faculty respondents who are going to answer the questionnaire were chosen by the dean or department head. The survey was administered onsite.

#### 3.3.2. Quantitative Data Analysis

Data gathered were analyzed with descriptive, correlation, and multiple regression statistical techniques using the Statistical Package for the Social Sciences (SPSS) Software V21 x64. Data analysis of the study was conducted in three distinct steps. Firstly, descriptive statistics using frequencies and percentages were calculated for the demographic information for all participants and the respondents'

perception on readiness. Secondly, Pearson correlation was used to compute the correlation of all key variables associated with regression. Thirdly, a series of stepwise multiple regression analyses were calculated to determine the best predictive model of readiness among the variables assessed.

#### 3.4. Qualitative Phase

#### 3.4.1. Qualitative Data Collection

The main source of data in the qualitative phase was the responses of the respondents' interview that provide access to feelings, perceptions, and opinions that are effective for gaining insight to the problem being investigated [57]. Prior to the interview of the respondents, a written permission was sent to the Deans of colleges and universities. When the endorsement was sought, it was forwarded to the heads of the departments who gave the go signal to schedule the interviews of the research participants, then, the appointment of time and place for the interview was arranged [31,32]. Semi-structured interviews consist of several key questions that help to define the areas to be explored, but also allows the interviewer or interviewee to diverge in order to pursue an idea or response in more detail [58, 59]. They also allow participants the freedom to express their views in their own terms and can provide reliable, comparable qualitative data [60]. Fontana and Frey [61], described interview as one of the most powerful ways in which we try to understand our fellow human beings using a semi structured questionnaire. Information from interviews were recorded using audio tape and by making handwritten notes [31, 46]. The qualitative strand was designed so that it follows from or connects to the results of the first quantitative phase [41] to ensure in depth explanation of the statistical results.

#### 3.4.2. Qualitative Data Analysis

Research flow is empirically observed using the following steps in data analysis: (1) transcription of data; (2) emic to etic transcription by reading and re-reading the transcripts to surface the essence of the phenomenon; (3) coding the data by segmenting, comparing, and labeling the text; (4) identifying themes by comparing and grouping similar codes; (5) verifying the themes through interrater reliability check to ensure credibility and reliability of the themes; (6) analyzing the themes by reviewing the data within the themes until an understanding of each theme was reached. To validate and increase the trustworthiness and rigor of the qualitative findings, triangulation, member checking, peer review, rich and thick descriptions of the themes, and research advisor's auditing were the strategies used

[36,41,62-64].

#### 4. Results

#### 4.1. Quantitative Phase

#### 4.1.1. Frequencies and Percentage Analyses

#### 4.1.1.1. Demographic Information of Survey Respondents

Faculty members from selected higher education institutions were the respondents of this study. When grouped according to length of service, 40.0% (n=28) have served the college and/or university for 2 to 10 years; 37.1% (n=26) have served for 11 to 20 years; 12.9% (n=9) have served for 21 to 30 years, 7.1% (n=5) have served for 31 to 40 years; and 2.9% (n=2) have served the institution for 40 years and above. As to eligibility, 60.0% (n=42) are LET/PBET licensed holders, while 38.6% (n=27) hold a Civil Service license and licenses from other fields such as Engineering, Architecture, Accountancy, Nursing, Pharmacy, Laws, etc. and 1.4% (n=1) does not hold any professional license. Lastly, when grouped according to courses taught, among the 70 respondents, 51.4% (n=36) are teaching General Education subjects while 48.6% (n=34) are teaching Specialized or Major Subjects.

#### 4.1.1.2. Respondents' Perception on K-12 Readiness

Based on the respondents' responses pertaining to K-12 readiness, 74.3% (n=52) believed that they are ready for the implementation of the K-12 program; 18.6% (n=13) indicated that they are not ready; 2.8% (n=2) expressed that they are uncertain and partially ready; and 4.3% (n=3) did not give any comment. These results define the college teachers' attitude as to their perception of readiness to the implementation of the new K-12 curriculum. They believe that they are ready and prepared since they are equipped with the right qualifications and skills needed for the new program and they are positive that the new program will be successful and effective in achieving its goals.

#### 4.1.2. Correlational Analyses

Pearson correlation matrices were conducted for all the variables associated with regression. The variables were eligibility, length of service, courses taught, the four preparation plan categories, along staffing guidelines, course streamlining, workforce surplus management, and alternative programs, and readiness. The total group intercorrelations are presented in the table below.

	1	2	3	4	5	6	7	8
	r	r	r	r	r	r	r	r
1 Eligibility		.078	132	.398**	.260*	.020	.178	.263*
2 Length of Service	.078		.096	.143	.162	.539**	.070	.259*
3 Courses Taught	132	.096		175	.082	.150	.101	.077
4 Course Streamlining	.398**	.143	175		.561**	.264*	.382*	.777**
5 Staffing Guidelines	.260*	.162	.082	.561**		.490**	.524**	.867**
6 Workforce Surplus Management	.020	.539**	.150	.264*	.490**		.570**	.664**
7 Alternative Programs	.178	.070	.101	.382**	.524**	.570**		.725**
8 Readiness	.263*	.259*	.077	.777**	.867**	.664**	.725**	

Table 1. Intercorrelations between Variables

p = .05 \*p = .01

The three demographic variables revealed non-significant intercorrelations with (r) ranging from .078 to -.132 and (p)ranging from .275 to .522. The four preparation plan categories revealed significant intercorrelations ranging from (r) .264 to .570 and (p) ranging from .000 to .043 described as slight to moderate intercorrelations. Between and among the demographic variables, preparation plan categories, readiness, and eligibility showed a slight correlation with staffing guidelines (r=.260 and p=.036), a moderate correlation with course streamlining (r=.398 and p=.001), and a slight correlation with readiness (r=.263) and p=.046). Length of service also showed a moderate correlation with workforce surplus management (r=.539 and p=.000) and a slight correlation with readiness (r=.259 and p=.050) but no significant correlations with course streamlining, staffing guidelines and alternative programs. Courses taught showed non-significant intercorrelations with all the preparation plan categories and readiness. The preparation plan categories and readiness also revealed significant intercorrelations as indicated by the computed correlation coefficients. Course streamlining, workforce surplus management, and alternative programs showed a high correlation with readiness (r=.777, .664, .725)respectively and (p=.000), while staffing guidelines showed a very high correlation with readiness (r=.867 and p=.000).

As stated earlier, eligibility is correlated with course streamlining, staffing guidelines and readiness which could be attributed to the integration of the college's general education courses to the senior high school core courses of the new basic education curriculum as mandated by the Commission on Higher Education, CHED Memorandum Order 20, s. 2013. The revision of college curriculum have led to decrease in faculty workload and more teachers with less workload [65], thence, tertiary education administrators are urged to provide opportunities to the college teachers to upgrade their skills to be able to handle specialized subjects in the senior high school [6,66]. College teachers who are transferred to teach in the senior high school must be eligible or board passer, but, the Department of Education allows

non-licensed faculty to teach in the senior high school only on a temporary basis since there is an existing condition that requires them to pass the Licensure Examination for Teachers within five years. This provision is in placed to ensure that the enhanced basic education program meets the demand for quality teachers and its hiring policy grants full-time permanent teaching status to teachers who passed the Licensure Examination for Teachers [10, 67]. Therefore, eligibility plays a critical role in securing readiness among college teachers to embrace the enhanced basic education curriculum and its anticipated impact.

Length of service is also correlated with workforce surplus management and readiness which suggest that job security can be acquired through length of service or seniority [68, 69]. One of the downsizing effects of the implementation of the K-12 program is its implication to the employment of the employees of the higher education sector. There is an underlying assumption that many college teachers will be displaced, retrenched, and unemployed since the new program created a gap or a time when there are no students entering college [8, 9, 70, 71, 72]. Based on an employee's length of service, preference can be accorded to him or her in such areas as layoff, promotion, transfer, shift assignment, scheduling, vacation accrual, and recall after temporary layoff [68, 73].

Preparation plan categories along course streamlining, staffing guidelines, workforce surplus management, and alternative programs are highly correlated with readiness. Preparation is the stage when individual or individuals plan to adopt the new program and undertake change in the immediate future. In this stage, people have considered the rationale, processes, and anticipated outcomes of the reform and made a definite decision to engage in change [16]. The ability to plan for change and coordinate among various participants is also important to the ultimate effectiveness of new endeavors [15]. With the full implementation of the latest educational reform agenda or K-12, some colleges and universities have already prepared for the effective implementation and smooth transition of the program.

Regression Coefficient					
В	Beta	t value	Sig		
18.238					
5.032	.263	2.036	.046		
	B 18.238	B Beta 18.238	B Beta t value 18.238		

Table 2. Regression of Demographic Variables and readiness

R - .263 R<sup>2</sup> - .052 F - 4.147 Sig. F - .046

**Table 3.** Regression of preparation plans and readiness

IV	Regression (	Coefficient		
	В	Beta	t value	Sig
Constant	9.216			
Staffing Guidelines	1.053	.419	9.982	.000
Course Streamlining	1.225	.386	10.406	.000
Workforce Surplus Management	1.088	.231	5.984	.000
Alternative Programs	1.110	.215	5.514	.000

R - .976 R<sup>2</sup> - .949 F - 259.787 Sig. F - .000

#### 4.1.3. Regression Analyses

Findings revealed that the influence of eligibility on readiness is significant, that is, F=4.147, p=0.46. Eligibility accounts for 5.2% ( $R^2$ =.052) of the variance of readiness; hence about 94.8% could be explained by other factors not mentioned in the study. The beta coefficient is .263, t=2.036, p=.046, therefore, eligibility is a significant predictor of readiness among college educators. College faculty members who passed the licensure examination for teachers are more prepared and ready for the full implementation of K-12 since their license makes them eligible to teach in the Senior High School program of the K-12 curriculum [10]. Thus, teacher licensure matters in the implementation of the basic education reform in the Philippine Education system [74] since it is the key requirement that allows teachers to engage in the teaching profession [75]. In addition, passing the teacher licensure examination is important because this ensures that teachers are well trained before entering the classrooms [76] and it is a defining attribute of a high quality teacher [77].

The influence of course streamlining, staffing guidelines, workforce surplus management, and alternative programs on K-12 readiness is significant that is F=259.787; p=.000. These four preparation plan variables account for 94.9% of the variance of K-12 readiness, hence 5.1% could be attributed to other factors not mentioned in the study. The *beta-coefficients* for staffing guidelines (.419), course

streamlining (.386), workforce surplus management (.231), and alternative programs (.215) are all significant p=.000, therefore, these variables are good predictors of K-12 readiness among higher education institutions. Universities and colleges should formulate appropriate policies and procedures, and study different options in terms of appropriating faculty to provide equal opportunity for employment and to ensure the promotion and protection of the rights, interests, and welfare of all employees in the higher education sector, particularly the "would-be affected" faculty members.

#### 4.1.3.1. Staffing Guidelines

Staffing guidelines refer to a set of human resource criteria that is specially made to determine the profile and qualifications of the college faculty during the transition period when there will be less college enrollees. The Commission on Higher Education is tasked and mandated to implement strategies to protect higher education institutions and their employees from severe losses during the transition. CHED shall partner with DepEd, TESDA, PRC, and DOLE to develop contingency plans given that the low number of graduates during the transition period will mean reduced human resources. It should uphold educational institutions and their employees to ensure that "the rights of labor as provided in the Constitution, the Civil Service Rules and Regulations, Labor Code of the

Philippines, and existing collective agreements," as well as "the sustainability of the private and public educational institutions, and the promotion and protection of the rights, interests and welfare of teaching and non-teaching personnel" are prioritized [10, 67, 71, 78].

#### 4.1.3.2. Course Streamlining

Course streamlining refers to the revised academic and degree programs being offered in colleges and universities in response to the implementation of the K-12 curriculum. This change in the basic education system has integrated the General Education courses of the higher education program to the senior high school core courses, hence, creating a window for the revision of the current college general education curriculum. Colleges and universities are making adjustments in their curricular programs and course offerings to align with the pedagogies of the K-12 program. [67, 79, 80]. This proactive strategy of streamlining or restructuring the curriculum provides a roadmap of planned educational experiences conferred to the learners by their teachers [81]. The curriculum adjustments and course streamlining made by the higher education institutions are indications of support to the country's educational reform agenda that is primarily driven by the effort to address the onslaught of globalization and regional cooperation for the graduates of the Higher Education Institutions to be globally competitive [6]. It also aims at meeting the standards of education in the global world where our graduates with only ten years of basic education are disadvantaged [5]. This new program puts a high-value on holistically developed citizen through a combination of education input and curriculum reform [4].

#### 4.1.3.3. Workforce Surplus Management

Workforce surplus management refers to the various contingency plans needed if the institution has greater number of employees than is necessary. The labor implication of the K-12 program on college workers is one of the bases of the critics' opposition to the implementation of the program. The latest figures from the Commission on Higher Education showed that 13,634 teaching staff and 11,456 non-teaching staff from higher education institutions may be displaced because of the program [8, 9, 67, 71]. This is based on the latest data from CHED's survey of higher education institutions and their faculty in November 2014. This also takes into account the latest data from Department of Education, wherein 637 higher education institutions will open and operate senior high schools (as of May 31, 2015). This means they will continue to have enrollees and can keep their personnel through the transition period, and may even need to hire more teachers later on. However, these numbers do not include employees from State Universities and Colleges (SUCs), because the SUC budgets for the transition years are enough to cover all the people who would otherwise be displaced, nor does it include permanent workers from Local Universities and Colleges (LUCs), because these employees cannot be retrenched during the transition period (except on grounds of incompetence or immorality). It was also taken into account that 25 percent of General Education (GE) subjects are taught in third and fourth years which means that not all faculty who teach GE will be displaced [65, 67]. This is precisely why CHED, DepEd, DOLE (Department of Labor and Employment) and the Higher Education Institutions have designed responses to provide support to those who may lose their jobs [6, 67, 80, 82, 83].

#### 4.1.3.4. Alternative Programs

Alternative programs refer to the additional and alternate actions necessary to keep the employment of affected faculty. The Commission on Higher Education has created a transition plan for college teachers who will be displaced by the introduction of Senior High School in AY 2016-2017 [84, 85]. CHED, for its part, has designed development packages for faculty and staff who will experience a much lower workload during the transition, with the view of not only curbing the adverse effects of the transition but also, and more importantly, upgrading higher education in the country. There will be scholarships for graduate studies and professional advancement. CHED will give a total of 15,000 scholarships to higher education personnel for 8,000 to complete master's degrees and another 7,000 to finish doctorate degrees. There is also a provision of development grants for faculty and staff who may not wish to go on full-time study may still avail of grants that will allow them to retool, engage in research, community service, industry immersion, and other programs throughout the transition period. Innovation grants for institutions are available. Higher education institutions are given the opportunity to apply for innovation grants to fund the upgrading of their programs through: (1) international linkages, (2) linkages with industry, (3) research, or (4) the development of priority, niche, or endangered programs [10, 67]. Likewise, Department of Labor and Employment will provide income support for a maximum duration of one year, employment facilitation that matches their skills to the current job market, and training and livelihood programs in case the affected personnel may want to pursue entrepreneurship. Policies that determine qualifications, requirements, and modes of disbursal for the Development Packages and DOLE's income support are made to ensure that all applicants will adhere to the required standards and procedures. With strategic actions from HEIs, CHED, DepEd, DOLE and concerned agencies the impact of K-12 implementation will be cushioned [8, 67].

#### 4.1.4. Hypotheses

In this study, hypothesis 1 stated that eligibility, length of service, and courses taught would influence readiness. This hypothesis is supported because length of service is significantly correlated with readiness, and eligibility would create the best model for predicting readiness among college educators. Hypothesis 2 stated that course streamlining, staffing guidelines, workforce surplus

management, and alternative programs influenced readiness. This hypothesis is supported because these variables are correlated with readiness and would create the best model for readiness of higher education institutions.

#### 4.2. Qualitative Phase

Qualitative evidence through the articulations, musings, and verbalizations of the respondents in this phenomenological inquiry revealed five themes related to readiness of higher education institutions to the full implementation of the new K-12 curriculum that are pivotal, namely: requalifying the teachers, retooling the teachers, realigning the curriculum, reclassifying the teachers, and redirecting professional development.

#### 4.2.1. Theme 1: Requalifying the Teachers

The K-12 Implementing Rules and Regulations (K-12 IRR) stipulated that college teachers who passed the Licensure Examination for Teachers (LET) are eligible to teach in the K-12's senior high school program and acquire a full time permanent position. However, non-LET passers are also given the chance to teach in the senior high school provided that they pass the LET within five years after their date of hiring. If such teachers opted to teach on part-time basis only the provisions of LET shall no longer be required. Confirmatory statements related to this are verbalized by these respondents:

"We will need to shift some of our teachers to Senior High School, but we also consider only those who are LET passers, tenured, and with good evaluation. MA qualification is only second. We are really considering the LET passers. If the teacher meets the qualifications and is willing to take the position, we will offer the job." (R1)

"There is a moratorium that allowed non-licensed teachers to teach in the secondary education level for five years until they pass the board exam or get a license. Actually, we are preparing some of our faculty to take and pass the licensure exam for teachers." (R12)

In addition, the Department of Education and private educational institutions may hire practitioners with expertise in the specialized learning areas offered by the enhanced basic education curriculum to teach in the senior high school level provided that they teach on part-time basis only as mentioned by this respondent:

"Mostly, our part-timers are practitioners with expertise in learning areas offered in our college. They are the senior superintendents, chief superintendents, and senior inspectors of the police department, who are specialized about police matters." (R2)

These narratives are unequivocal recognition of the

significance of requalifying teachers to allow them to teach legally under the rule of law as required by the Department of Education and the government. This qualification requirement also ensures that the enhanced basic education program meets the demand for quality teachers.

#### 4.2.2. Theme 2: Retooling the Teachers

Under the new college general education curriculum, undergraduate students are exposed to various domains of knowledge and ways of comprehending social and natural realities, intellectual competencies, and civic capacities. Upgrading faculty skills is necessary to improve teacher quality and make the faculty be aligned with the goals of the new K-12 curriculum. The accounts of the respondents support this:

"There will be no more two-year course because it is already offered in the Senior High School. Those professors who are teaching the two-year course are re-tooled. They have to learn other subjects or skills so that they have something new to teach their students." (R5)

"The proposal is to have the teachers in the college to undergo retooling. This means that you are going to study other skills or enroll in other programs that are required for the K-12 curriculum." (R3)

The move to retool the teachers is indications of support to the country's educational reform agenda that is primarily driven by the effort to meet the standards of education in the global world. The verbalization of the respondent affirmed to this:

"In our department, those faculties handling the major subjects are required to have the National Certificate. So, we send our teachers for training including the part-timers, especially now that TESDA (The Technical Education and Skills Development Authority) is offering scholarships to teachers of TechVoc oriented schools." (R6)

#### 4.2.3. Theme 3: Realigning the Curriculum

The implementation of the enhanced basic education program has required the higher education institutions to review their college offering to align with the context of the K-12 curriculum. Statements below confirmed:

"In the education department, the Dean told us in one of our meetings that we are going to make a new syllabus and course prospectus because we have to link the college curriculum to the K-12 curriculum. So, in 2016, we will be following the new curriculum already." (R5)

"What we are doing right now is first we identified the different strands of the K-12 curriculum: the HUMMS, ABM, and STEM and

then we identified the curriculum under the 3 strands. Then, we look at the subjects and identified the core subjects and the specialized subjects and we asked the teachers to prepare the syllabi." (R1)

These statements are affirmations that the school administrators and educators are working together to review the school's existing college offering so that it should be designed and reengineered in line with the new curriculum that warrants a smooth transition to the new educational system. This is evident in this statement:

"In terms of program and instruction specific of the curriculum, we made prepartions by attending a lot of workshops, a lot of trainings, and a lot of sessions regarding curriculum realignment. A lot of faculty effort was invested before it was finalized. The new college curriculum has already been presented to the faculty and staff, so, in terms of instruction and specific offering, we are almost prepared for that." (R12)

#### 4.2.4. Theme 4: Reclassifying the Teachers

When the senior high school curriculum under the K to 12 program was implemented nationwide, high school graduates have entered senior high school's grade 11 in 2016 and grade 12 in 2017. Hence, a drop of college enrollment is expected in colleges and universities beginning school year 2016-2017 all the way to school year 2021-2022, which means loss of income for higher education institutions and loss of job to some college faculty, particularly those who are teaching general education subjects. To ensure the sustainability of higher education institutions and the promotion and protection of the rights, interests, and welfare of teaching faculty, colleges and universities with secondary education can move some of their faculty members to teach in the senior high school. Statements below confirmed:

"In terms of faculty, we are preparing them for the transition to temporarily teach in Senior High School." (R12)

"I am favorable of the plan to let the teachers teach in the senior high school." (R9)

"On my part as Dean of the College, as much as possible, we give assurance to our teachers who are transferred to the senior high school that they can still teach in the tertiary level when 2021 comes. When everything is back to normal, they will be transferred automatically to college. They will be given priority over the new applicants." (R1)

Reassigning the displaced faculty members to teach in the senior high school, due to the lack of freshmen and sophomore college students, is a viable move to maintain and sustain the higher education institutions, especially those that are tuition-dependent.

#### 4.2.5. Theme 5: Redirecting Professional Development

Colleges and universities have created a transition plan for college teachers who are displaced when the senior high school of the K-12 program was introduced in June 2016. They have redirected professional development activities to empower the affected teachers by encouraging them to pursue graduate studies or do research work. Several respondents mused:

"We are actually encouraging our teachers to pursue graduate studies in 2016 because this is the time when there will be lesser enrollment. Those teachers who opted to pursue their graduate studies, especially the regular or full-time employees will be given a study leave. They will still be paid in full aside from the scholarship grants that they enjoy." (R8)

"Our university is requiring every faculty to do an individual or collaborative research work during the transition period because the school will be paying them for that work. The other option is to avail of the projects from the local government and the Commission on Higher Education because they are also offering a budget for research outputs." (R2)

"The teachers really wanted to pursue their graduate studies and it is a perfect timing for me because I had been planning to continue and finish my Ph.D., in fact I have already informed my Dean about it." (R9)

These statements affirmed that pursuing graduate studies or doing research work is not just about filling the gap during the transition period, it is about maintaining relevance and alleviating the teaching profession.

#### 4.3. Elaboration of Themes

#### 4.3.1. Realigning the Curriculum

Increasing the Basic Education from 10-12 years requires a re-programming or re-aligning of the curricula [79]. Realigning the curriculum is the process of creating revisions and adjustments to the old college curriculum through streamlining by removing obsolete and redundant courses/subjects/contents to align with the enhanced basic education program since the context of the K-12 curriculum is presumed on the fact that students are ready for college [79, 86]. It involves thorough examination of topics and skills being taught [87]) and features an essential mechanism determining the suitability of what is taught [81]. The CHED's Memorandum Order number 20, series of 2013 provides the framework and rationale of the revised GE curriculum as a paradigm shift and in the context of the K to 12 curriculum based on college readiness standard

(CHED CMO 20, s. 2013). Hence, this new program revised the college general education curriculum by removing some units or subjects which comprise a year's worth of general education subjects and at least two years of major subjects [65]. From 63 units for humanities and social science majors and 51 units for science, engineering, and math majors, the new curriculum will just require 36 units for all students. The 36 units are divided into 24 units of core subjects, nine units of electives, and three units of the Rizal course as required by law [66]. The new college's General Education curriculum exposed undergraduate students to various domains of knowledge and ways of comprehending social and natural realities, developing in the process, intellectual competencies, and civic capacities [67]. Realigning the curriculum would make the country's education system be at par with the demands of the fast globalizing world [5, 65, 79] and meets the challenges of the 21st Century [88].

#### 4.3.2. Regualifying the Teachers

Requalifying the teachers is the process of making the teachers become eligible to teach in the senior high school program of the K-12 curriculum. The Department of Education has formulated guidelines on how the displaced college teachers can teach Grade 11 and 12 students [10, 66] which is supported by Section 10 of House Bill 6643, approved on third reading, stipulates: "Notwithstanding the provisions of Sections 25, 27 and 28 of Republic Act No. 7836, the faculty of higher education institutions (HEIs) shall be allowed to teach general education subjects in the secondary education: Provided. That the faculty must be a holder of a relevant Master's degree: Provided, further, that they pass the LET within five (5) years after their date of hiring." This qualification requirement is intended for college faculty with Bachelor of Education degree qualification. [82]. Allowing a non-licensed teacher education graduate to teach in K-12's Senior High School program is provisionary eligibility [74] with a condition that the teacher must obtain the teacher license within 5 years. For industry practitioners they can be brought into the classrooms only on part-time basis. They are only granted temporary eligibility [74] to teach because they lack the necessary qualifications to become a certified professional teacher. Graduates of technical-vocational courses can also teach in the specialized learning areas offered by the K to 12 Program as part-time teachers but they must have the necessary certification issued by TESDA and undergo training to be administered by DepEd or HEIs. [10, 11]. Full eligibility [74] is granted to applicants with a Professional Regulation Commission teaching license and/or appropriate certification. They are given permanent full-time status [71]. This Teacher licensure requirement was promulgated and mandated by the Philippine Teachers Professionalization Act of 1994 [75].

#### 4.3.3. Retooling the Teachers

Retooling is the process of equipping the teachers to play

their part to meet the objectives of the new curriculum [89]. This retooling strategy is focused on developing skills that will help teachers teach rather than developing them as learners [90]. Their skills are topped-up to augment existing practices and meet changing situations [91]. The move to retool teachers is an approach to replenish the need of senior high school teachers to be able to handle subjects in the academic tracks [66]. This situation is similar to the case in New York City wherein the school board decided to retool existing teachers to fill-in the most difficult-to-staff disciplines. This approach is simple, direct, and has overcome the high cost of initiating new teachers into the system [92]. In like manner, some universities in the Philippines have started retooling their faculty since 2011 and after the retooling stage the schools have identified the respective faculty members to be assigned in the different areas of the enhanced basic education program [66, 70]. Thus, retooling is very much based in a practical view of teaching, in which relevance and immediate application within classrooms is the prime objective [90].

#### 4.3.4. Reclassifying the Teachers

The implementation of the new K-12 program is causing a drop of college enrollment due to college enrollment gaps starting SY 2016-2017 until the flow of students in a 4-year course is seen to normalize in SY 2021-2022 [93]. This implies that the absence of college enrollees mean less manpower requirements [66]. In view of this, a group of college teachers from various colleges and universities expressed their fear that the employment of thousands of private school teachers nationwide may be affected [93, 94]. Hence, reclassifying qualified higher education faculty to teach general education subjects in the senior high school is one of the remedies to secure the employment of the affected college teachers [70, 72, 93]. This remedy is considered practical, doable, and effective. Reclassifying the college teachers is a strategy that allows them to teach in another level according to their professional competencies [95]. The National Comprehensive Center for Teacher Quality affirmed that re-assigning qualified teachers ensures that students are taught by experienced and knowledgeable teachers [95] in addition to securing their employment and retaining their college posts [80, 84, 85].

#### 4.3.5. Redirecting Professional Development

One of the intervention measures to mitigate the impact of K-12 implementation to the employment of college teachers is the provision of redirecting professional development activities [10]. These are activities designed to empower the teachers to improve their quality through paid study leave to pursue graduate or post-graduate studies [10, 93] and grant of research work [10, 70, 93, 94]. These redirection activities can create opportunities for teacher learning and transformation [90]. Engaging teachers to research makes teaching an evidence-based profession [96] reclaiming research as a legitimate means of gaining

knowledge and insights about teaching and learning [97]. In developing research projects specifically tailored to the needs of a particular learning community, teachers are empowered to find localized practical solutions required for effective change to take place. [98]. Moreover, allowing teachers to pursue graduate or post-graduate studies is an excellent move to advance teaching career and enhance the status of the profession [99, 100]. According to Murnane [101] voluntary participation in postgraduate education may be a sign of high motivation which is considered by school administrators to be crucial to teaching success. Pursuing graduate studies and engaging in research work are just few of the many redevelopment activities for teachers with the goals of gaining insights into teaching and learning, becoming more reflective practitioners, effecting changes in schools, and improving the lives of the students [97]. Hence, the provision of redevelopment activities would be considered to redirect teachers in advancing professional development as one of the best measures to support them during the transition period.

#### 5. Discussion

Generally, the purpose of this mixed methods sequential explanatory study is to create a clear picture about factors that determine readiness of selected higher education institutions in the Philippines to the implementation of the K-12 curriculum as perceived and relayed by the college faculty members as empirically treated in both quantitative and qualitative phases. In the quantitative phase, the regression analysis yielded a model that identifies the variables as attributes of readiness among select colleges and universities. These five predisposing factors are identified as; eligibility, staffing guidelines, course streamlining, workforce surplus management, alternative programs. These indicators were further explored qualitatively through gathering information and perceptions by means of semi-structured interviews that help gain insights into the respondents' lived-world views, personal knowledge, and experiences [102, 103, 104] that support and explain further the quantitative dataset. The follow-up component revealed that realigning the curriculum, requalifying the teachers, retooling the teachers, reclassifying the teachers, and redirecting professional development are pivotal points that signify the preparedness of higher education institutions and teachers in the advent of the K-12 program. These qualitative findings pave the way to understanding the respondent's in-depth feeling which is beyond the metrical measures of controlled variables.

#### 5.1. Eligibility and Requalifying the Teachers

In the quantitative phase, eligibility was identified as a factor that determines readiness of the college faculty to the

implementation of the K-12 program. This indicated that college educators who are education graduates and passers of the Licensure Examination for Teachers (LET) are more prepared and ready for the K-12 program since college teachers who are transferred in the senior high school are qualified to teach and acquire a permanent full time teaching position in the K-12's Senior High School (SHS) program as stipulated in the Department of Education's hiring policy under the new curriculum [10, 67]. The qualitative analysis revealed that the process of requalifying the college teachers makes them eligible to teach in the senior high school program of the K-12 curriculum. This teacher licensure requirement was promulgated and mandated by the Philippine Teachers Professionalization Act of 1994 [75]. Section 10 of House Bill 6643 [82], Department of Education, and K-12 Implementing Rules and Regulations [10, 66] that requires the senior high school teachers to be board passers to qualify them to teach in the K-12's senior high school program. Thus, eligibility and requalifying the teachers play a critical role in securing readiness among college teachers to embrace the enhanced basic education curriculum and its anticipated impact. This qualification requirement also ensures that the enhanced basic education program meets the demand for quality teachers.

# 5.2. Course Streamlining and Realigning the Curriculum

The quantitative result indicated course streamlining as determinant of readiness of higher education institutions to the implementation of the K-12 curriculum. Colleges and universities are making adjustments in their curricular programs and course offerings to align with the pedagogies of the K-12 program. [67, 79, 80]. In the follow-up interview, participants believed that creating revisions and adjustments to the old college curriculum through streamlining will align the previous curriculum with the enhanced basic education program that would make the country's education system be at par with the demands of the fast globalizing world [5, 65, 79, 86] and meet the challenges of the 21st Century [88]. The move made by the higher education institutions to realign the curriculum or streamline courses are indications of support to the country's educational reform agenda that is primarily driven by the effort to address the onslaught of globalization and regional cooperation for the graduates of the Higher Education Institutions to be globally competitive [6].

#### 5.3. Staffing Guidelines and Retooling the Teachers

Staffing guidelines is a factor of readiness to the implementation of the new program of which a set of human resource criteria are specially made to determine the profile and qualifications of the college faculty during the transition period when there will be less college enrollees. The formulation of staffing guidelines protect the higher

education institutions and their employees from severe losses during the transition, likewise, ensuring the promotion and protection of the rights, interests and welfare of teaching and non-teaching personnel [10, 67, 71, 78]. Given that the low number of graduates and reduced college enrollees during the transition period, the in depth interview revealed that retooling the teachers is one of the approaches to keep the employment of displaced college teachers and replenish the need of senior high school teachers [66]. Retooling the teachers will equip them to handle subjects in the academic tracks and be able to play their part to meet the objectives of the new curriculum [89]. Retooling the teachers, as one of the staffing guidelines, is very much based in a practical view of teaching, in which relevance and immediate application within classrooms is the prime objective [90].

## 5.4. Workforce Surplus Management and Reclassifying the Teachers

the quantitative analysis, workforce management came out to be a determinant of readiness to the implementation of the K-12 program, which refers to the various contingency plans needed if the institution has greater number of employees than is necessary during the transition period. The latest figures from the Commission on Higher Education showed that 13,634 teaching staff and 11,456 non-teaching staff from higher education institutions may be displaced during the full implementation of the K-12 curriculum [8, 9, 67, 71]. This is precisely why the Commission on Higher Education, Department of Education, and Department of Labor and Employment, and the Higher Education Institutions have designed responses to provide support to those who may lose their jobs due to drop of college enrollees and reduction of faculty workload by designing responses, such as reconfiguring faculty appointments and assignments to manage the anticipated workloads [6, 67, 80, 82, 83]. The qualitative follow-up revealed that that to manage surplus of workforce in the higher education sector, reclassifying qualified higher education faculty to teach general education subjects in the senior high school is one of the remedies to secure the employment of the affected college teachers [70, 72, 93]. This resolution is considered practical, doable, and effective. Reclassifying the college teachers is a strategy that allows them to teach in another level according to their [95]. professional competencies The National Comprehensive Center for Teacher Quality affirmed that reassigning qualified teachers ensures that students are taught by experienced and knowledgeable teachers [95] in addition to securing their employment and retaining their college posts [80, 84, 85].

# 5.5. Alternative Programs and Redirecting Professional Development

Alternative programs significantly determine readiness of higher education institutions to the implementation of the new K-12 curriculum, in the quantitative phase. Alternative programs consist of development packages designed by the Commission on Higher Education for faculty and staff who will experience a much lower workload during the transition, with the view of not only curbing the adverse effects of the transition but also, and more importantly, upgrading higher education in the country ([10, 67]. In the follow-up interview, participants believed that one of the intervention measures to mitigate the impact of K-12 implementation to the employment of college teachers is the provision of redevelopment activities that redirected professional development activities [67]. These are activities are designed to empower the teachers to improve their quality through paid study leave to pursue graduate or post-graduate studies [67, 93] and grant of research work [67, 70, 93, 94]. The provision of alternative programs and redevelopment activities would redirect teachers in advancing professional development and would considered as one of the best measures to support them during the transition period.

The quantitative and qualitative findings created a clear picture of readiness of higher education institutions to adopt change that were consistent with the basic ideas of Prochaska and DiClimente's The Theoretical Model (TTM), which claimed that readiness to undertake change is characterized by the preparation stage at which point the individuals or institutions have considered their options and made a decision to move forward with change [14, 15]. In addition, the ideas of the Concerns Based Adoption Model (CBAM) also supported the findings of this study although its principle components of readiness are an individual process whereby people interact progressively with change ([21, 23, 24]. This model is specifically tailored for an individual person but it shared similar elements that complement readiness to embrace change. However, the findings of readiness in this study is argued by Rogers' [25] Diffusion of Innovation Model which claimed that getting the new idea adopted, even when it has obvious advantages, is often very difficult (Rogers, 1962). Thus, successful implementation of the new program comes when a person decides to adopt the change. These theories; The Theoretical Model (TTM) of Prochaska and DiClimente [14], Concerns Based Adoption Model (CBAM) of Hall [20], and Rogers' [25] Diffusion of Innovation Model, were found to be useful and appropriate for application to readiness to adopt to a new curriculum. The constructs of these theories are interwoven into the context of preparations and readiness in this study. Mixing both the quantitative and qualitative metric in determining readiness select colleges and universities to the implementation of the basic education reform or K-12 curriculum is considered underexplored or under researched; thus, timely and pressing most especially in the Philippine setting where the new K-12 curriculum is still the bone of contention by

people in all walks of life. Impliedly, the quantitative and qualitative findings play an important role in generating an improved understanding of the issue being investigated that strengthens the rigor of the research findings.

#### 6. Conclusions

This study elucidates the factors that determine readiness among selected higher education institutions in the Philippines to the implementation of K-12 curriculum. Assessing readiness will serve as an impulse for enhanced implementation strategy and craft alternative interventions and measures for any anticipated negative impact. The sustainability of the successful implementation of the government's program efforts rests on the willingness and readiness of the education sector and stakeholders to embrace change. By understanding how readiness is related to eligibility or requalifying the teachers; staffing guidelines through retooling the teachers; streamlining courses by realigning the curriculum; managing surplus of workforce by reclassifying the teachers, and creating alternative programs by redirecting professional development activities; there is no doubt that the current education reform agenda is geared toward the attainment of quality, excellence, and equity.

This study provides only one perspective of the implementation of the basic education reform in the Philippine education system, particularly, readiness of college teachers and higher education institutions to adopt and embrace change. Also, the marginal population size and restraint of faculty related variables to length of service, eligibility, and courses taught are recognized as the limitations to the related findings. Being one of the few researches on readiness to the basic education reform in the Philippines, this study leaves some unanswered questions and opens a door for future research for in-depth exploration of the new K-12 program, such as the readiness and preparations of other educational sectors affected by the basic education reform program and the evaluation and assessments to the effectiveness of the K-12 program in all areas as in order to address the issues, concerns, and dilemmas; thus strengthening the government's education reform agenda. The results would be productive for colleges, universities, and other educational institutions, teachers, Department of Education, Commission on Higher Education, Technical Education and Skills Development Authority (TESDA), Department of Labor and Employment (DOLE) and the society.

## 7. Implications and Recommendations

The basic education reform agenda of the Philippine government has brought a plethora of concerns relative to college enrollment gaps, curriculum adjustments and employment of college teachers. The results of this study

are aimed at creating a panorama of interwoven factors that determine the effect of the K-12 program to higher education institutions and college teachers as basis for crafting implications and recommendations fully addressed to various stakeholders: policy makers, educational administrators, school management, educational planners, college faculty and staff, and teachers from other levels.

- 1.) On teacher eligibility and requalifying the teachers. It is highly recommended that teachers should take and pass the Licensure Examination for Teachers. Obtaining the required license makes the educators professional teachers who are highly qualified, and eligible for employment as teachers both in private and public schools.
- 2.) On course streamlining and realigning the curriculum. Higher Education Institutions need to review their college offering to align their programs with the revised college general education curriculum that complements with the pedagogies of the K-12 program.
- 3.) On staffing guidelines and retooling the teachers. Higher education institutions should formulate appropriate policies and procedures, and study different options in terms of staffing guidelines, particularly in the enhancement of faculty skills in order to provide equal opportunity for development. Retooling teachers to learn new skills that certainly enable them to handle specialized subjects in the senior high school.
- 4.) On workforce surplus management and reclassifying the teachers. Higher education institutions and other concerned agencies should strengthen initiatives to ensure the protection, interest, and welfare of the affected college faculty. To remain employed reclassifying the faculty to teach in the senior high school level is a viable move.
- 5.) On alternative programs and redirecting professional development. College and universities should give and provide equal opportunity to all affected faculty in terms of redevelopment activities for teachers to be redirected in their teaching career, such as, funded graduate and post-graduate studies, research grants, and collaborative research projects, in order to upgrade teacher quality in the higher education sector of the country.
- 6.) For a successful transition and implementation of the new curriculum the researcher recommends to all college faculty and higher education institutions to take their part in the adoption of the new program so that all can benefit from the new opportunities presented by the government's education reform agenda and that elevate the Philippines to the international education standards.

#### Note

The quantitative aspect of this study was reported at the Universal Journal of Educational Research 4(10): 2447-2462, 2016.

#### REFERENCES

- [1] UNESCO (2008). Philippine Education for All 2015: Implementation and Challenges. UNESCO Global Monitoring Report. Available on: https://goo.gl/0EqwYq
- [2] UN Report (2008). Allocation for basic education averages 85 percent of the total education budget according to an unpublished UN Country Report. Available on: https:// goo.gl/ofyS8Z
- [3] Arcelo, Adriano A. (2003). In Pursuit of Continuing Quality in Higher Education Through Accreditation: The Philippine Experience. International Institute of Educational Planning, UNESCO, Paris. Available on:http://unesdoc.unesco.org/images/0013/001336/133645e.p df
- [4] Okabe, M., & 岡部正義. (2013). Where does Philippine education go?: the" K to 12" program and reform of Philippine basic education. Available on: https:// goo.gl/EZMvKQ
- [5] Tabora, Joel (2012). Challenges in Implementing K-12 and Transformative Education, 3rd COCOPEA-Mindanao Congress, General Santos City. Available on: goo.gl/1VLyvP
- [6] UP System Information Office (2013). UP Gears up for the Impact of the K-12 Curriculum and ASEAN Economic Cooperation 2015. Available on: https://\goo.gl/Na9rPp
- [7] Cabansag, M. G. S. (2014). Impact Statements on the K-12 Science Program in the Enhanced Basic Education Curriculum in Provincial Schools. *Researchers World*, 5(2), 29.
- [8] Flores, H. (2014). DepEd moves to minimize displacement of teachers due to K-12. The Philippine Star. Available on: https://goo.gl/quig52
- [9] Tan, K. (2014). Consultations ongoing for 85,000 that will lose jobs due to K-12. Available on: https://goo.gl/N2yHgN
- [10] Official Gazette (2013). Implementing Rules and Regulations of the Enhanced Basic Education Act of 2013. Available on: http://www.gov.ph/2013/05/15/republic-act-no-10533/
- [11] DepEd (2010). Discussion paper on the enhanced K+12 basic education program. Department of Education. Available on: http://goo.gl/siiMgc
- [12] De Guzman, A. B. (2003). The dynamics of educational reforms in the Philippine basic and higher education sectors. *Asia Pacific Education Review*, *4*(1), 39-50.
- [13] Magno, A.C. (2011). Analysis of the Basic Education of the Philippines: Implications for the K to 12 Education Program. SEAMEO-INOTECH, Philippines. Available on: https://goo.gl/mvvvS0
- [14] Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. Psychotherapy: Theory, Research & Practice, 19(3), 276.
- [15] Howley, C. (2012). Readiness for Change. White Paper. *ICF International (NJI)*. Retrieved from: https://eric.ed.gov/?id=ED535400
- [16] Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American journal of health* promotion, 12(1), 38-48.

- [17] Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (1999). A critical examination of the application of the Transtheoretical Model's stages of change to dietary behaviours. *Health Education Research*, 14(5), 641-651.
- [18] Lach, H. W., Everard, K. M., Highstein, G., & Brownson, C. A. (2004). Application of the transtheoretical model to health education for older adults. *Health Promotion Practice*, 5(1), 88-93.
- [19] Lenio, J. A. (2006). Analysis of the Transtheoretical Model of behavior change. *Journal of Student research*, 5, 73-87.
- [20] Hall, G. E. (1975). The Effects of Change on Teachers and Professors--Theory, Research, and Implications for Decision-Makers. Available: http://files.eric.ed.gov/fulltext/ED128338.pdf
- [21] Loucks, S., & Pratt, H. (1979). A concerns-based approach to curriculum change. *Educational Leadership*, *37*(3), 212-215.
- [22] Hord, S. M. (1987). Taking charge of change. ASCD, 125 N. West St., Alexandria, VA 22314-2798. Retrieved from: http://files.eric.ed.gov/fulltext/ED282876.pdf
- [23] Loucks, S. F., & Hall, G. E. (1981). Investigating Program Implementation: A Field Perspective. Research on Concerns-Based Adoption. Available on: https://eric.ed.gov/?id=ED226453
- [24] Evans, L., & Chauvin, S. (1993). Faculty developers as change facilitators: The concerns-based adoption model. Available on: https://goo.gl/2x0BUU
- [25] Rogers, E. M. (1962). Library of Congress Cataloging in Publication Data. *Innovation*, 11(2).
- [26] Kautz, K., & Pries-Heje, J. (1996). Research directions on diffusion and adoption of information technology. In *Diffusion* and Adoption of Information Technology (pp. 3-7). Springer US.
- [27] Rogers, E. M. (2003). Diffusion of innovations (5th Ed.). New York: Free Press.
- [28] Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.
- [29] Sahin, I. (2006). Detailed review of Rogers' Diffusion of Innovations theory and educational technology-related studies based on Rogers' theory. The Turkish Online Journal of Educational Technology, 5: 2.
- [30] Robinson, L. (2009). A summary of diffusion of innovations. Enabling change. Available on: http://goo.gl/0C4kjOcontent\_copyCopy\_short\_URL
- [31] Creswell, J. W. (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 2nd Edition. Sage Publications Inc. Thousand Oaks, CA.
- [32] Creswell, J. (2007). Qualitative Inquiry & Research Design: Choosing Among Five Approaches. Sage Publications, Inc. Thousand Oaks, CA.
- [33] Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045-1053.
- [34] West, C. P. (2012). A mixed methods sequential explanatory study of the impact of chronic pain on family resilience. James Cook University, Australia.

- [35] Wisdom J and Creswell JW (2013). Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. Rockville, MD: Agency for Healthcare Research and Quality. AHRO Publication No. 13-0028-EF.
- [36] Ivankova, N.V., & Stick, S.L. (2007). Students' persistence in a distributed doctoral program in educational leadership in higher education: A mixed methods study. *Research in Higher Education*, 48(1), 93-135.
- [37] Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 3rd Edition. Thousand Oaks, CA: Sage Publications, Inc.
- [38] Moustakas, C. (1994). Phenomenological research methods. Thousand Oaks, CA: SAGE Publications, Inc.
- [39] Giorgi, A. (2012). The descriptive phenomenological psychological method. *Journal of Phenomenological psychology*, 43(1), 3-12.
- [40] Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods*, 3(1). Article 4
- [41] Creswell, J. W., Plano Clark, V.L. (2006). Designing and Conducting Mixed Methods Research. 2nd Edition. Sage Publications Inc. Thousand Oaks, CA.
- [42] Schutt, Russell K. (2011). Investigating the Social World: The process and practice of research 7. Thousand Oaks, CA: Sage Publications, Inc.
- [43] Landreneau, K. J., & Creek, W. (2009). Sampling strategies. Available on: http://www.natco1. org.
- [44] Teddlie, C., & Yu, F. (2007). Mixed methods sampling a typology with examples. *Journal of mixed methods research*, *I*(1), 77-100
- [45] Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. Available on: http://hdl.handle.net/10125/227
- [46] Bernard, H.R. 2002. Research Methods in Anthropology: Qualitative and quantitative methods. 3rd edition. AltaMira Press, Walnut Creek, CA
- [47] Miller, D. E., & Kunce, J. T. (1973). Prediction and Statistical Overkill Revisited. *Measurement and evaluation in guidance,* 6(3), 157-163.
- [48] Halinski, R. S., & Feldt, L. S. (1970). The selection of variables in multiple regression analysis. *Journal of Educational Measurement*, 7(3), 151-157.
- [49] Knofczynski, G. T., & Mundfrom, D. (2008). Sample sizes when using multiple linear regression for prediction. Educational and Psychological Measurement, 68(3), 431-442.
- [50] Barlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information technology, learning, and performance journal*, 19(1), 43.
- [51] Van Voorhis, C. R. W., & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology*, 3(2), 43-50.

- [52] Siniscalco, M. T., & Auriat, N. (2005). Questionnaire design. Quantitative research methods in educational planning. UNESCO International Institute for Educational Planning, Paris.
- [53] Meadows, K. A. (2003). So you want to do research? 5: Questionnaire design. *British Journal of Community Nursing*, 8, 562-570.
- [54] Fink, Kosecoff J (1996). How to conduct surveys. A step by step guide. *London*: Sage Publications.
- [55] American Statistical Association (2012). Common Pitfalls in Conducting a Survey. Fairfax County Department of Neighborhood and Community Services. Virginia, USA.
- [56] Crawford, I. M. (1990) Marketing Research Centre for Agricultural Marketing Training in Eastern and Southern Africa. *Harare Zimbabwe*.
- [57] Laforest, Julie (2009). Guide to Organizing Semi-Structured Interviews with Key Informants. Institut national de santé publique du Québec. Available on: https://goo.gl/V0P8GU
- [58] Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*, 204(6), 291-295. http://dx.doi.org/10.1038/bdj.2008.192
- [59] Harrell, M. C., & Bradley, M. A. (2009). Data collection methods. Semi-structured interviews and focus groups. RAND National Defense Research Institute, *Santa Monica*, CA.
- [60] Cohen, Deborah J., & Benjamin F. Crabtree. E. (2008). Valuative criteria for qualitative research in health care: controversies and recommendations. *The Annals of Family Medicine*, 6(4), 331-339. http://dx.doi.org/10.1370/afm.818.
- [61] Fontana, A., & Frey, J. (1994). The art of science. *The handbook of qualitative research*, 361-376. Available on: http://jan.ucc.nau.edu/~pms/cj355/readings/fontana%26frey.p df
- [62] Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. School psychology quarterly, 22(4), 557.
- [63] Olive, James L. (2014). Reflecting on the Tensions between Emic and Etic Perspectives in Life History Research: Lessons Learned [35 paragraphs]. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 15(2), Art. 6.
- [64] Franklin, K. (2009). Etic and Emic Stories, GIALens, vol. 3, no. 2, pp. 1-11. Retrieved from: http://www. gial. Edu/images/gialens/vol3-2/Franklin-Etic-emic-Stories. Pdf
- [65] Lauraya, F.P., Mascariñas, A., Amano, L., Bercasio, R., Cortez, C. Jr., Torres, E. (2013). Bicol SUCS after K-12 and Beyond: An Ex-ante Analysis of the Impact of K-12 Program to HEIs, Higher Education Summit 2013 Oriental Hotel, Legazpi City, Philippines
- [66] Bongcales, Irene (2014). School workers affected by K to 12 face an uncertain future. Available on: https:// goo.gl/VAXKIF
- [67] CHED (2015). Impact on Higher Education: The role of CHED. Commission on Higher Education. Available on: https://goo.gl/Dfx9Vp

- [68] MacLeod, K., & Queen's University (Kingston, Ont.). Industrial Relations Centre. (1987). The seniority principle: is it discriminatory? (No. 11). Industrial Relations Centre, Queen's University.
- [69] Pudelko, M. (2006). The seniority principle in Japanese companies: A relic of the past?. Asia Pacific Journal of Human Resources, 44(3), 276-294.
- [70] Lacamiento, Grace Melanie I. (2014). K to 12: The effect on teachers, The Freeman. Available on: http://www.philstar.com/cebu-news/2014/06/27/1339633/k-1 2-effect-teachers
- [71] Geronimo, Jee (2014). College professors fear massive retrenchment due to K to 12. Available on: http://www.rappler.com/nation/60428-college-professors-fear -massive-retrenchment-k12
- [72] Arcangel, Xianne (2014). DepEd to need 81k teachers for senior high school by 2016, GMA News. Available on: https://goo.gl/4txG3e
- [73] Kraft, M. A. (2013). Teacher Layoffs, Teacher Quality and Student Achievement: The Implementation and Consequences of a Discretionary Reduction-in-Force Policy. Society for Research on Educational Effectiveness.
- [74] Acosta, A. S., & Acosta, I. C. (2016). Does Teacher Licensure Matter? Basic Education Reform in the Philippine Education System. *International Journal of Education*, 8(4), 73-91.
- [75] Aquino, A. and Balilla, L. (2015). Pre Service Teachers' Licensure Examination Plans and Content Knowledge. Asia Pacific Journal of Education, Arts and Sciences, Vol. 2 No. 2.
- [76] Riney, M. R., Thomas, C., Williams, G., & Kelley, B. (2006). National Implications: Teacher Education Students' Perceptions of State Licensure Requirements and Pedagogical Training. In National Forum of Teacher Education Journal (Vol. 16, No. 3, pp. 1-7).
- [77] Boe, E. E., Shin, S., & Cook, L. H. (2007). Does teacher preparation matter for beginning teachers in either special or general education? *The Journal of Special Education*, 41(3), 158-170.
- [78] Shahani, L.R. (2015). The challenges of basic education: dealing with K-12. Available on: goo.gl/fbWHnB
- [79] Gauuan, J. (2015). K+12 Policy Framework: Pessimistic, Optimistic or Realistic? COCOPEA North Luzon Consultation. Baguio City, Philippines. Available on: https://goo.gl/WQ0FWh
- [80] Coronado, A. (2013). Ateneo prepares for K-12. Ateneo De Manila University. Available on: http://www.ateneo.edu/news/ateneo-prepares-k-12
- [81] Watermeyer, R. (2011). Challenges for university engagement in the UK: Towards a public academe?. *Higher Education Quarterly*, 65(4), 386-410.
- [82] Cruz, Isagani (2013). College teachers in 2016. Available on: https://goo.gl/zmlsjB
- [83] Miriam College (2014). Miriam College is K-12 Ready. Available on: https://www.mc.edu.ph/
- [84] Cruz, Isagani (2015). Pros & Cons in the K+12 Basic Education Debate. Available on: https://goo.gl/Sn3iqA

- [85] Cruz, Isagani (2015). Investing in college teachers. Available on: https://goo.gl/0PFLjn
- [86] Lacorte, Germelina (2014). More teachers to lose jobs due to K-12 program. Available on:http://newsinfo.inquirer.net/631487/more-teachers-to-lose -jobs-due-to-k-12-program
- [87] Biggs, John (2002). Aligning the curriculum to promote good learning. Constructive alignment in action: imaginative curriculum symposium, *LTSN Generic Centre*, Vol. 4
- [88] Matshe, Phillip FA & Mahlangu, Vimbi P (2014). Realigning the Curriculum for the Societal's Needs in the 21st Century. *Mediterranean Journal of Social Sciences*, 5(27), 291-297.
- [89] Navalta, C. (2012). Retooling Faculty towards Outcome-Based Instruction: The MIT Experience. Philippine Association of Colleges and Universities. Seminar on Enabling HEIs to Prepare for Quality Assurance Framework. Available on: https://goo.gl/NUVstM
- [90] Sachs, J. (2007, January). Learning to improve or improving learning: the dilemma of teacher continuing professional development. In *Proceedings of the 20st Annual World ICSEI Congress* (pp. 3-6).
- [91] Loveless, A. (2008). 'Retooling or renaissance?': teacher education, professional knowledge and a changing landscape. Education Research Centre, School of Education University of Brighton, UK. Available at: http://www.pef.uni-lj.si/tepe2008/papers/Loveless.pdf [Accessed: 26 January, 2010].
- [92] Cooper, B. (1987). Retooling Teachers: The New York Experience. *The Phi Delta Kappan*, 68(8), 606-609. Retrieved from http://www.jstor.org/stable/20403443
- [93] Casiple, Rex (2014). K-12 implementation: Its effect on teaching and non-teaching personnel in school. The Daily Guardian. Available on: http://www.thedailyguardian.net/
- [94] Marcelo, Elizabeth (2014). Thousands of professors expected to lose jobs with K-12 implementation. Available on: https://goo.gl/Afe1h1
- [95] Perlman, C. L., & Redding, S. (2011). Effective Implementation of School Improvement Grants. Center on Innovation and Improvement. Lincoln, IL. Available on: https://goo.gl/uhVhCs
- [96] Hemsley-Brown, J., & Sharp, C. (2003). The use of research to improve professional practice: A systematic review of the literature. *Oxford Review of Education*, 29(4), 449-471.
- [97] Stremmel, A. J. (2002). Teacher research: Nurturing professional and personal growth through inquiry. YC Young Children, 62-70.
- [98] Hine, G. S. (2013). The importance of action research in teacher education programs. *Issues in Educational Research*, 23(2), 151-163.
- [99] Holmes Group (1986). Tomorrow's Teachers: A Report of the Holmes Group. East Lansing, MI.: Author. Retrieved from: http://goo.gl/znUWUZ
- [100] Wise, E. (1988). On the S<sup>3</sup> Paradox in Education. *Education Week*, pp. 24, 36.

- [101] Murnane, R.J. (1981). Interpreting the evidence on school effectiveness. *Teachers College Record*, 83(1), 19-35.
- [102] Lester, S. (1999). An introduction to phenomenological research. Available on: https://www.researchgate.net/publication/255647619\_An\_int roduction to phenomenological research
- [103] Starks, H., & Trinidad, S. B. (2007). Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative health research*, 17(10), 1372-1380
- [104] Cooney, A. (2010). Choosing between Glaser and Strauss: an example: Adeline Cooney looks at the reasons for choosing either Glaserian or Straussian grounded theory when conducting research and why she made her choice in a recent study. *Nurse researcher*, 17(4), 18-28