

# DEVELOPMENT OF AN AGE-PERIOD-COHORT-EXPERIENCE MODEL FOR FILIPINO INTERGENERATIONAL DIVERSITY INQUIRY IN SCHOOLS

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## Abstract

*The purpose of this study is to develop a model to scrutinize intergenerational (IG) diversity in the workplace in response to current issues in IG diversity studies. These include the ambiguity of the definition of generation as the basis for understanding IG diversity and the overgeneralization of findings that could lead to generational stereotypes. The present study consists of two-phase developmental research. Phase One involved model development based on an integrative literature review. Phase Two focused on the validation of the model in the context of multigenerational colleagues in Philippine basic education schools. An Age-Period-Cohort-Experience (APCE) model was developed to explore IG diversity in the workplace. Validation showed the applicability of the model to obtain a contextualized understanding of IG diversity through the recognition of the overlapping and interrelated effects of age, period, cohort, and work experiences. The APCE model provided a useful lens for scrutinizing the IG diversity of the teachers in the workplace through qualitative research with limitations in terms of their age, period, cohort, and experiences. As such, said descriptions for each generation could only hold true while all four conditions are present. Until a strong basis for analysis is established, the separation of one effect from another will be difficult.*

**Keywords:** Age-period-cohort-experience; Intergenerational; Workplace diversity.

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## 1. INTRODUCTION

Globalization is making the world a more connected place through continuous developments in information and communications technology (Ertürk, 2015). Although, the world is becoming more and more interconnected, it is also becoming increasingly diverse (Saillant, 2017). Hence, it requires connections that are based on an understanding of diversity through the recognition of varied voices (Lin, 2019). Without a contextualized understanding of diversity, connections lack a necessary strong foundation. Hence, different aspects of diversity, one of which is intergenerational, have been the focus of many studies.

With the coexistence of multiple generations now, understanding generations has become more important in the process of understanding one another (McCrindle, 2014). This has been the case as well in the current workforce where at least four generational cohorts are working together. This coexistence presents challenges due to the potential clash brought about by diverse patterns of behavior, attitudes, expectations, habits, and motivational mechanisms (Čič & Žižek, 2017). However, IG coexistence could also present opportunities to the industries faced with challenges that require a combination of technical, analytical, and experiential skills (Gordon, 2018). The promise of IG opportunities has inspired the development of various models, strategies, and approaches to manage IG diversity in the workplace. However, it has been observed that some of these models and strategies were built on IG characteristics that were anchored to very specific contexts that are usually underemphasized. These research findings provide a shaky ground for the initiatives toward IG inclusivity. Hence, the understanding of IG diversity on which the said models and approaches have been built must be investigated to ensure that they indeed reflect the IG diversity of the people to whom the approaches would be applied. Otherwise, the attempts to accommodate IG diversity would be for naught.

This paper, therefore, responds to current issues in IG diversity studies that include ambiguity in the definition of generation as the basis for understanding IG diversity and overgeneralization of findings that could lead to generational stereotypes rather than intergenerational inclusivity. Specifically, this study seeks to develop a model for scrutinizing intergenerational diversity in the workplace, offering inputs on the analysis of IG diversity.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Intergenerational diversity in the workplace could be an asset to an organization, especially since many challenges in industry today require a combination of technical, analytical, and experiential skills that can be provided by a multigenerational workforce (Gordon, 2018). Furthermore, the findings of Cumming-Potvin and MacCallum (2010) indicate that social capital is built for both mentors and mentees in IG practices. However, IG diversity comes with challenges as well. Generations are different due to the overlapping and interacting effects of their age, period, and cohort (Pew Research Center, 2015). The differences are observed in their patterns of behavior, attitudes, expectations, habits, and motivational mechanisms (Čič & Žižek, 2017). With such differences,

diversity could lead to some clashes as each generation exhibits a different style of working, learning, and setting value priorities (Polat & Kazak, 2015).

The potential of IG diversity to present both challenges and opportunities has inspired much research that explores IG diversity and its management (Bolser & Gosciej, 2015; Čič & Žižek, 2017; Reyes & Norona, 2019; Sayers, 2006). Based on the understanding of IG diversity, various approaches, strategies, and models for management have been designed and employed (Axonify Inc., 2013; CBS, 2017; Čič & Žižek, 2017). However, the understanding of IG diversity on which the said models and strategies have been built must be investigated to ensure that they indeed reflect the IG diversity of the people to whom the approaches would be directed.

As social researcher Mark McCrindle warned, generational segmentation has its uses, but caution must be taken against making generational stereotypes. An example of a generational stereotype is the view of millennials as job-hoppers, which was challenged by Buckley et al. (2015). They claimed that this belief could be a misinterpretation of an age effect. They asserted that the attitudes of millennial adults until they settle down is fluid toward their employers, which was also observed among the baby boomer and Gen X cohorts. However, since the millennials entered the labor market and settled down much later in life, this job-hopping appeared to be observed much later. Further, they cited the incomplete entry into the labor market of the millennials, who may have been limited to temporary or seasonal work at that time. Hence, the description of millennials as job-hoppers stereotypes the cohort without consideration of the age effect.

Another concern with the existing understanding of IG diversity is the over-reliance and overgeneralization of western cohort labels and characteristics. Culture must be considered one of the factors that influence variety within generations. In fact, Ting et al. (2018) concluded that there are no baby boomers, Gen X, and Gen Y in Malaysian history. Instead, they proposed five generational cohorts based on significant events that were collectively experienced by Malaysians. Similar attempts to develop local generational cohorts have also been made in the Netherlands, China, and the Philippines. Salvosa and Hechanova suggested two generations, the political and technology generations, for the Philippine workplace (Salvosa & Hechanova, 2021). However, it can be observed that many of the existing local IG studies that were reviewed focused on the mainstream cohort categories (Aguirre & Faller, 2018; Alcasid et al., 2017; Delelis et al., 2018; Lituañas, 2017; Reyes & Norona, 2019; Tengco-Pacquing et al., 2019). This focus persists even though the significant events that had been the basis of these cohort categories are foreign for Filipinos. For instance, one of the significant events believed to have shaped Generation X is the high divorce rate and participation by mothers in the workforce. This developed the desire of Gen Xers to build the strong families they had missed in their childhood (Howe & Strauss, 2007). However, the Philippines has no such divorce legislation. Furthermore, family values remain highly important to Filipinos (Macapagal et al., 2013) across generations (Bongco & Abenes, 2019). Hence, the application of the same cohort descriptions to the Filipinos who were born between 1965 and 1980 would be misleading.

These generational stereotypes, which emerge because of the failure to consider multiple factors that affect IG diversity and the tendency toward overgeneralization, could compromise even the best intentions to embrace and maximize the opportunities of IG diversity. Hence, this study seeks to develop an integrative model for IG diversity inquiries for a more contextualized understanding.

### **3. METHODOLOGY**

#### **3.1. Research design**

This research is a two-phase developmental study. The study is developmental because it is intended to design a model for scrutinizing the intergenerational diversity in the workplace as an output. Phase One of the study focuses on model development through an integrative literature review. Snyder (2019) emphasized the power of literature reviews, explaining that the integration of various findings and perspectives from different sources enables a literature review to answer “research questions with a power that no single study has” (p. 333). Specifically, this study employs an integrative literature review that generates new conceptual frameworks.

Phase Two focuses on model validation. Validation is performed in the context of elementary education schools in the Philippines. The IG diversity of 20 multigenerational basic education teachers is scrutinized using the resulting model.

#### **3.2. Inclusion criteria**

This study engaged in a systematic literature search strategy through various databases and search engines, including the university online commons, Academia, and ProQuest. The keywords, “generation,” “intergenerational,” and “multigenerational,” were used for the literature search, which yielded 74 materials.

The materials were reviewed on the basis of the following inclusion criteria: (1) They should be published or made available from 2000 to the present; (2) they should focus on the generation(s) in the workforce; and (3) they must be research-based (published or unpublished, e.g., master’s theses or doctoral dissertations). The criteria exclude studies that employ the genealogical conceptualization of generation.

The initial review process eliminated 43 papers. One was a paper that employed a genealogical conceptualization of generation, 31 were not situated in a workplace setting, and 11 were not research-based. This left 31 articles for further analysis.

#### **3.3. Analysis**

The 31 articles included in this study were reviewed with a focus on the (1) subject, (2) nature, and (3) conceptualization of generation. Subject pertains to the group of individuals who are the focus of the study (e.g., teachers, telecommunications employees, general workforce). Nature concerns the research design used in the study (e.g., qualitative, quantitative, mixed-methods, analytic/developmental). Finally, the

conceptualization of generation pertains to how the study defined and employed the concept of generation (e.g., age, experience). This review included both the explicit and implied uses of generation.

### **3.4. Model validation**

The APCE model that was developed in Phase One of the study was validated by exploring the IG diversity of 20 basic education teachers in the Philippines. Analysis of the IG diversity looked into the participants' (1) motivations for building IG relations, (2) crises/issues, (3) communication style, (4) conflict resolution strategies, (5) role in the workplace, and (6) work values.

The selection of participants for validation was performed in two phases. First, the schools were selected using the following inclusion criteria: (1) They must be a public or private basic education school in the Philippine Central Luzon Region; (2) they must have at least three generations of faculty; and (3) they must have a male and female teacher representing each of the three generations. After identifying three schools for the study, Phase Two of the selection process tried to find one male and one female teacher of each generation through social networks. Generational categories for selection were based on age (young adults, 18–35 years; middle-aged, 36–55 years; older adults, 56 years and older). Qualitative data were gathered through semi-structured individual interviews and analysis of Facebook posts using instruments that were developed by the researchers and validated through expert validation and pilot testing.

## **4. RESULTS AND DISCUSSION**

This study is divided into three parts. The first part presents the findings of the integrative literature review of the conceptualizations of generation as a basis for understanding IG diversity. The second part presents the model that was developed on the basis of the integrative literature review. Finally, the last section discusses the validation of the model in the context of multigenerational basic education schools.

### **4.1. Conceptualizations of generation in IG diversity studies**

An integrative review of the literature shows different conceptualizations of generation that serve as bases in understanding IG diversity. These are not always explicit in the literature. In some studies, they are only implied. The literature review shows that generation was conceptualized in the literature in terms of (1) age, (2) experience, (3) cohort, (4) combination of effects, and (5) period. These will be discussed in detail in the succeeding paragraphs.

#### *4.1.1. Age*

Age has been used as a basis for identifying IG diversity in the workplace. This points to the individual's position in the life cycle (Pew Research Center, 2015). However, only one paper has been reviewed that focused primarily on generations according to age or life cycle. Barabaschi (2015) looked into the conditions of young and

old workers to analyze the intergenerational solidarity of European workers. She used the young and old to point to the workers' generations.

Although age has been used in many other studies as a basis for selection and grouping of participants, many of these studies either use age in combination with another conceptualization or use age only for selection purposes. Nonetheless, their conceptual/theoretical framework and analysis show a different focus.

The extensive use of age as a basis for selecting participants could be due to its potential to provide a systematic and a more standard means of classification compared to cohort where the cut-off is not an exact science (Dimock, 2019). While the contribution of nature and nurture in human development are both recognized (McLeod, 2017) the nature aspect allows more commonalities among human beings as their DNA guides them through the same developmental stages at about the same points in life (McLeod, 2017). Further, studies that employ generation based on life cycle conceptualization are very useful because they yield a more lasting impact in the industry due to the natural cycle of aging (Amarya et al., 2018). This natural cycle requires an informed understanding of the concerns of the age-based generations of workers because of a promise of more lasting significance, particularly in industries where the turnover rate is low.

#### *4.1.2. Experience*

Another basis for understanding IG diversity among workers is the length of experience in the field (Novotný & Brücknerová, 2014). This could also point to a more complicated "wealth" of experiences that is much more challenging to categorize than the more specific length of experiences.

Experience-based generations identify workers as beginners or seasoned, or as junior or senior employees (Löfgren et al., 2013; Tempest, 2003). Other studies have used this in combination with other conceptualizations. For instance, Aguirre and Faller (2018) looked at the struggles of mid-career teachers with millennial learners in the Philippines. In their paper, they considered the experience-based generation of mid-career teachers as they work with a cohort-based generation of millennial learners.

Where the employee turnover rate is low, experience-based understanding of IG diversity is important because of its potential for a lasting impact, especially with the cyclical process of generational change from junior to senior employees. Nonetheless, this conceptualization of generation is also important in industries where employee retention is low because turnover does not only mean more costs for the company, but it also has negative implications on productivity and quality of services (Löfgren et al., 2013; Mamun & Hasan, 2017; Slåtten et al., 2011). For instance, in the case of teaching in Europe, both junior and senior employees tend to leave the profession. Senior teachers retire early and junior employees leave the profession after a few years. This leaves the schools with the dilemma of untrained personnel due to the disruption of knowledge transfer among the employees as senior teachers take with them their expertise and knowledge of the school microculture when they retire. Hence, a systematic support is

called for to motivate employees to stay as long as possible and to participate in knowledge sharing (Löfgren et al., 2013) that can be multidirectional (Tempest, 2003). However, such systematic support must be based on an understanding of IG diversity that takes into consideration this conceptualization of employee generation.

#### *4.1.3. Cohort*

Seventy-four percent (74%) of the studies that were reviewed employed cohort as a basis for understanding IG diversity. Cohort pertains to the group of individuals who share an identity due to the influence of their shared experiences brought about by the historical timing of their births. Their shared identity is brought about by the significant events during the most impressionable years of their lives (e.g., adolescence, young adulthood). The effect of these significant events persists through an individual's life, thus giving the cohort a certain identity (Alwin & McCammon, 2003; Pew Research Center, 2015).

There is no general standard for generational cohort labels and cut-off dates. As Michael Dimock, the president of the Pew Research Center, explained, there is no agreed-upon formula for generational cohort spans and determining their cut-offs is not an exact science (Dimock, 2019). Nonetheless, it had been observed that most of the papers that were reviewed used the mainstream cohort categories, such as millennials, Generation X, and baby boomers.

It was also noted that because of so much interest in the cohort as a basis for IG diversity, different types of research (qualitative, quantitative, mixed-methods, and analytic/developmental) have been made based on this conceptualization, covering a wide range of subjects (e.g., teachers, telecommunication workers, tourism workers, general workforce).

The heightened interest in the cohort as a basis for understanding IG diversity could be due to its immense impact on the generational gap. As Howe and Strauss (2007) have pointed out, if one wishes to anticipate what 40-year-old individuals will be like 20 years from now, he/she has to look at the 20-year-old individuals now, not those in their 40s. This is because people from the same cohort have experienced certain events affecting their identity at almost the same point in their lifetimes.

While individuals from different generations could share lifetime and experience effects, people from one cohort can never be categorized under another cohort. For instance, due to the natural aging process, an older adult worker was once a young adult. Similarly, a senior worker was once a beginner, and a junior worker could eventually be a senior worker. However, a millennial employee will always be a millennial, regardless of the stage in life and level of experience he/she acquires. Hence, cohort generation (with its unique identity) is most likely to affect generational misunderstandings and conflicts (Tay, 2011). This, therefore, has to be understood to be managed effectively.

However, it has been noted that many of the studies that were reviewed readily embraced the western cohort labels (e.g., millennials, Gen X, baby boomers), which were

mostly based on western significant events. These cohort labels do not take into consideration that different cultures have had different events that made “significant” effects on the development of their cohort characteristics.

#### *4.1.4. Combination of effects*

Four of the 31 papers that were reviewed considered a combination of different effects (e.g., age, cohort, experience) as a basis for understanding IG diversity, particularly in the conceptual and theoretical frameworks. Nonetheless, it has been observed that analyses usually focus on one particular conceptualization.

Often, when a combination is used, one category is employed mainly for the selection of participants and categorization. Analysis, however, focuses on one basis, which is usually a cohort or experienced-based conceptualization (Geeraerts et al., 2018; Kazak & Polat, 2018; Novotný & Brücknerová, 2014). Nonetheless, the literature emphasizes the importance of considering the interacting and overlapping effects on IG diversity (Alwin & McCammon, 2003; Pew Research Center, 2015). These effects are so connected that the identification problem (Alwin & McCammon, 2003; Bell, 2020) has been one of the biggest challenges for researchers who consider the interacting effects of generations. As Alwin and McCammon (2003) have asserted, understanding the separate effects is so complicated that it is usually easier to concede that social change is one effect of many without distinguishing which is more influential. These overlapping and interrelated effects could explain the danger of attempting to characterize a generation without considering or “controlling for” other effects. For instance, the description of millennials as job-hoppers, according to Buckley et al. (2015), could be a misinterpretation of an age effect because millennials’ attitude towards their employers is fluid until they settle down, and the same has been observed among other generational cohorts. Further, they also point to period effects (although they did not label them as such) in asserting that job-hopping by millennials is related to the prevailing economic conditions. When the economy is good and there are many job opportunities, people are encouraged to move to another job. On the other hand, if the economy is shrinking, individuals hang on to their jobs. In fact, an analysis by Deloitte of US Census Bureau Quarterly Workforce Indicators data revealed that millennials and Generation X showed the same patterns of behavior at the age of 19–35, particularly in 2005, when the economy was growing, and in 2010, when was the economy was contracting.

These multiple overlapping and interrelated effects make IG diversity studies complicated. Hence, recognition of the different effects of IG diversity is important to minimize the chance of overgeneralizations that could lead to generational stereotypes that, in turn, could limit employee opportunities (Amayah & Gedro, 2014).

#### *4.1.5. Period as an implicit aspect of IG diversity*

Period events that surround the generations have never been used as a stand-alone basis for understanding IG diversity. Nonetheless, it has been observed that analyses of IG diversity are situated around distinct period events.



For instance, while Aguirre and Faller (2018) used teachers' experience and students' cohort generations as the basis of their generational categories (mid-career teachers and millennial students), it could be observed that the study was situated in the age of technology development, which affected the practices of teaching and learning. Nonetheless, information and communication technology as a period effect was not explicitly discussed.

Other significant period events are the knowledge era (Ivantsova & Sivén, 2016) and women's participation in the productive sphere (Jaros, 2010; PwC, 2015). All three papers used cohort as a primary basis in categorizing generations. Nonetheless, their analyses are shaped by distinct period events.

Most papers that operated under certain period events recognized these events as part of the context that had been significant in the analysis, but not as an aspect of IG diversity. Nonetheless, the literature recognizes the social, economic, technological, and political events that make a lasting impact on all generations as a period effect that influences IG diversity (Alwin & McCammon, 2003; Pew Research Center, 2015). This has also been emphasized in the Howe and Strauss (2007) generational diagonal, which emphasizes the interaction of age, birth timing, and era.

**Table 1. Summary of Literature Reviewed**

Conceptualization of Generation	Qualitative	Quantitative	Mixed-Methods	Analytic/Developmental	TOTAL
Age	0	0	0	1	1
Cohort	7	9	1	6	23
Experience	2	0	0	1	3
Age and Experience	2	0	0	0	2
Age, Cohort, and Experience	0	2	0	0	2
TOTAL	11	11	1	8	31

#### **4.2. APCE model**

An integrative review of the studies that explored IG diversity in the workplace revealed various conceptualizations of generation. These conceptualizations include generation seen in terms of age, experience, cohort, period, or a combination of these effects. However, the conceptualization of generation in these studies is not always explicit. Hence, the application of the findings may be challenging and prone to overgeneralization.

Some of the problems that lead to overgeneralization are the absence of an explicit definition of generation as a basis for understanding IG diversity and the failure to recognize other effects that influence IG diversity (Buckley et al., 2015). Hence, this study proposes a model that provides an explicit definition of IG diversity, while considering the interacting effects of four factors that influence IG diversity in the workplace.

Taking into consideration the overlapping effects of various factors is not new in IG diversity studies. Age-Period-Cohort (APC) analysis has already been used extensively in various studies in recognition of the three ways in which people and societies can change through time (Bell, 2020). Nonetheless, APC analysis, as used in quantitative research, is confronted with the identification problem. The exact collinearity between the three results is the challenge of estimating effects. Hence, a strong assumption about one of these effects is necessary to estimate the linear components (Bell, 2020). As Alwin and McCammon (2003) have asserted, understanding the separate effects is so complicated that it is usually easier to concede that social change is a result of all three effects without distinguishing which is more influential. As the effects are complicated to separate, an effort should be made to recognize all these effects to clarify the context of the analysis of IG diversity.

Hence, this paper offers the Age-Period-Cohort-Experience (APCE) Model (Figure 1), which recognizes the overlap and interaction of these four effects in shaping the IG diversity of individuals in the workplace. This provides detailed descriptions for each of the four effects to avoid overgeneralizations.



**Figure 1. Age-Period-Cohort-Experience Model for IG Diversity Inquiries**

In this model, age pertains to the individuals' place in the life cycle (Pew Research Center, 2015). This could pertain to categories such as young and old, or young adult, middle-aged, and late adult. Second, period pertains to a description of the social, political, economic, medical, scientific, and technological events that surround the generations and potentially make a lasting impact on them (Pew Research Center, 2015). Third, cohort pertains to the group of individuals who share an identity due to their shared experiences brought about by the significant events during their impressionable years, particularly during their adolescence and young adulthood (Alwin & McCammon, 2003; Pew Research Center, 2015). Finally, experience as a basis for understanding IG diversity pertains to the "length" rather than the wealth of the experiences of workers. This points

to junior or novice, and expert or senior workers (Löfgren et al., 2013; Tempest, 2003). Identification of the four effects is important because three of the four effects change over time. Age is developmental, experiences accumulate, and period events change. Even cohort effects are not identified immediately because the lasting impact of significant events on one cohort could be best seen through time. Hence, proper documentation of these variables is important to provide careful limitations to the analysis.

This model relies on the detailed description of each of the four effects to provide context for analysis and clear boundaries. Hence, if the model is employed to understand the behavior of young adults (age), millennials (cohort), and junior workers (experience), in terms of continuous professional development through online modes (period), the findings could no longer be applied to millennials if their age effects have already changed (e.g., if the millennials have become middle-aged adults or have become expert workers).

### **4.3. Model validation**

The initial model, which was developed on the basis of the integrative literature review, was validated through the exploration of IG diversity of 20 teachers employed in multigeneration basic education schools in the Philippines. The participants are 10 male and 10 female teachers who were selected on the basis of their life cycle generation (young adults, middle-aged, older adults). The analysis of IG diversity looked into the participants' (1) motivations for building IG relations, (2) crises/issues, (3) communication style, (4) conflict resolution strategies, (5) role in the workplace, and (6) work values. This analysis required a detailed description of the participants in terms of their age, period, cohort, and experiences. These descriptions set limitations on the applications of the study findings.

#### *4.3.1. Age*

The categories proposed by Erik Erikson (McLeod, 2018) were used in this validation. However, in consideration of the age of retirement in the Philippines, the older adult category was adjusted to 56 years. Hence, age generations are (1) young adult, 18–35 years old; (2) middle-aged, 36–55 years old; and (3) older adult, 56 years and older.

#### *4.3.2. Period*

In terms of period effects, the study considered the important period events in Philippine basic education that have the potential to make a lasting impact on the teacher generations: (1) K to 12 education program and (2) ICT developments in mobile technology and social networking sites.

#### *4.3.3. Cohort*

Due to the limitations of the local cohort categories in the Philippines, the cut-offs employed in the mainstream categories were based on those of the Pew Research Center. This is because these cut-offs take into consideration the significant events that had precipitated global effects. Hence, the cohort categories used were (1) younger cohort,

born in 1981–1996; (2) middle cohort, born in 1965–1980; and (3) older cohort, born in 1946–1964. Nonetheless, potential significant local events were considered for a contextualized analysis. In addition to the worldwide web (Boysen et al., 2016) democracy after martial law was considered a potential significant local event for millennials. In addition to AIDS and the market crash (Boysen et al., 2016), martial law during the Ferdinand Marcos era and the People Power Revolution (Macapagal et al., 2013) were considered potential significant local events for the middle cohort. Finally, in addition to television, the personal computer, and the rapid growth in world economies (Boysen et al., 2016), the Bell Trade Act and interest in Filipino national identity (Macapagal et al., 2013) were considered potential significant local events for the older cohort.

#### 4.3.4. Experience

Instead of the wealth of experiences, this study considered the “length or duration” of work experiences in identifying the experience generation of the participants. This is because the “wealth of experiences” would have to rely on the self-classification of the participants, which has been problematic because of the influence of other factors such as modesty and the effects of age, rank, or position. For instance, the hesitation of one adult male teacher to categorize himself as an expert was observed in his repeated emphasis on his rank as Teacher 1, despite his old age and length of experience. Hence, a standard classification for experience generation was based on that of Novotný and Brücknerová (2014) and Polat and Kazak (2015). Teachers were classified into the following generations according to their length of experience: junior (0–5 years), experienced (6–25 years), and senior (26 years or more).

All seven young adult participants fall under the millennial category. Similarly, all seven middle-aged participants fall under the middle cohort, and all six older adult participants fall under the older cohort. However, there are differences in experience generation within the younger adult and older adult groups. The existence of these subgroups emphasizes the existence of diversity based on experience generation. For a summary of the participants for the model validation, see Table 2.

**Table 2. Summary of Participants for the APCE Model Validation**

Cohort/Age	Experience Generation			Total
	Junior	Experienced	Senior	
Younger cohort/young adult	4	3	0	7
Middle cohort/middle-aged	0	7	0	7
Older cohort/older adult	0	3	3	6
TOTAL	4	13	3	20

Validation of the model shows IG diversity among Filipino basic education teachers in terms of (1) motivations for building IG

relations, (2) crises/issues, (3) communication style, (4) conflict resolution strategies, (5) role in the workplace, and (6) work values. The analysis of IG diversity using the resulting APCE model provides a picture of the generations of teachers in multigenerational schools. Their IG diversity is summarized in Table 3.

It has been found that teachers prefer friendships with colleagues of the same generation. However, they also seek to establish relationships with colleagues from other generations for both instrumental (work-related) and expressive (nonwork-related) content interactions. However, young and middle-aged teachers are primarily motivated by instrumental content interactions, while variation exists among older generations depending on their experience generation. The experienced older adult teachers' primary motivation is instrumental, while the expert older adults are motivated more by the expressive content of their IG relationships. This could be because the junior and middle generation workers are in need of support to remain in the profession and are in the process of building expertise (Löfgren et al., 2013; Novotný & Brücknerová, 2014). Meanwhile, senior teachers have already developed expertise (Löfgren et al., 2013). Further, because they are nearing retirement age, senior teachers are no longer as focused on instrumental content interactions as they are with expressive contents, such as friendships.

In terms of crises, self-doubt was observed only in the junior teachers. Career promotion appears to be the focus of the experienced young adult and middle-aged generations. This could be because the experienced generation teachers are in the phase of building expertise (Novotný & Brücknerová, 2014). Meanwhile, the older adults were struggling to make sense of the generation gap between themselves and the younger teachers, while adjusting to the period effects of the K to 12 program and ICT developments.

In terms of conflict resolution, the younger generation is more accommodative. Meanwhile, the middle generation is accommodative (especially toward the older teachers) but could also be confrontative. The accommodativeness could be due to the obligation felt by Filipinos to show great respect toward elders (Ota et al., 2007). Finally, older generation is both accommodative and confrontative in terms of conflict resolution. This consistent with the literature that describes Filipinos as individuals who have both accommodative and confrontative characteristics (Macapagal et al., 2013). Nonetheless, because of the importance that Filipinos give to smooth interpersonal relationships, accommodative strategies are the primary choice (Lynch, 1973, 1984, as cited by Macapagal et al., 2013).

The three generations also vary in terms of their roles in the workplace. The young generation is the follower and learner. The middle generation is the mentor and initiator of IG relations, and the older generation is the mediator in terms of conflict. This is consistent with the description of the middle-aged (according to Erikson's theory of psychosocial development) as individuals who aspire to be productive and engage in things that will outlast them, such as mentoring (McLeod, 2018). Meanwhile, the older adults' role in mediating conflicts could be seen in light of the Filipino value of obedience and respect to elders, who are seen as authority figures (Macapagal et al., 2013).

In communication, the young generation is more accommodative while the middle and older generations are both accommodative and confrontative, which is also illustrative of the great respect Filipinos show toward the elders (Ota et al., 2007). Finally, all generations value *pakikisama* (getting along with others) in the workplace. They believe that *pakikisama* equates with good character. This is very consistent with the description of Macapagal et al. (2013) that in Philippine society, an individual who conforms is seen as “good” while a person who does not is seen as “*walang pakisama*” and as a rebel.

**Table 3. IG Diversity Among Filipino Teachers using the APCE Model**

Period	Cohort	Age	Findings
K to 12 Program and ICT Developments	Younger cohort	Young adult	<p><i>Motivations for IG relationship building:</i> instrumental (integration to the school culture)</p> <p><i>Crises:</i> self-doubt (junior)</p> <p><i>Conflict resolution:</i> accommodative</p> <p><i>Role in the workplace:</i> learner and follower</p> <p><i>Communication:</i> accommodative</p> <p><i>Work values:</i> <i>pakikisama</i> (getting along) for smooth professional relationships</p>
	Middle cohort	Middle-aged	<p><i>Motivations for IG relationship building:</i> instrumental (mentoring)</p> <p><i>Crises:</i> career promotion</p> <p><i>Conflict resolution:</i> accommodative (to older) and confrontative</p> <p><i>Role in the workplace:</i> mentor and initiator of IG relationships</p> <p><i>Communication:</i> accommodative and confrontative</p> <p><i>Work values:</i> <i>pakikisama</i> (getting along) for smooth professional relationships and respect for senior colleagues</p>
	Older cohort	Older adult	<p><i>Motivations for IG relationship building:</i> instrumental (experienced) and expressive purposes (senior)</p> <p><i>Crises:</i> generational gap</p> <p><i>Conflict resolution:</i> accommodative and confrontative</p> <p><i>Role in the workplace:</i> mediator</p> <p><i>Communication:</i> accommodative and confrontative</p> <p><i>Work values:</i> <i>pakikisama</i> (getting along) for smooth professional relationships and respect for senior colleagues</p>

Findings in the following notes pertain exclusively to a specific experience-based generation: *junior* (junior teachers only), *experienced* (experienced teachers only), *senior* (senior teachers only).

The APCE model provided a useful lens for scrutinizing the IG diversity of the teachers in the workplace through qualitative research with limitations in terms of their age, period, cohort, and experiences. As such, descriptions for each generation can only

hold true while all four conditions are present. Until a strong basis for analysis is established, the separation of one effect from another will be difficult.

## 5. CONCLUSION

IG diversity promises opportunities, along with its challenges. Hence, strategies, approaches, and models have been developed to manage this diversity. Nonetheless, issues still surround IG studies, including the tendency to overgeneralize findings and the ambiguity of the conceptualization of generation. These issues compromise even the best attempts to accommodate and build on the potentials of IG diversity. Hence, a contextualized understanding of IG diversity is vital to provide a strong foundation for IG inclusivity initiatives. As such, this study offers a model to scrutinize IG diversity through the recognition of the interacting and overlapping effects of age, period, cohort, and work experiences on generational differences. This model provides an explicit definition of IG diversity and sets limitations on the application of findings to avoid overgeneralizations. The findings of the study strongly support the presented arguments of the research, and the applicability of the APCE model is strongly supported by the examined literature and current practices in the Philippine education landscape.

This study, therefore, offers the APCE model for IG diversity inquiries as a small contribution to the enormous task of building stronger connections based on a contextualized understanding of global diversity.

## 6. LIMITATIONS AND STUDY FORWARD

It must be noted that the model does not offer a remedy to the identification problem of APC analysis. It does not intend to separate the four effects to see which is more significant. Rather, it recognizes the interrelated and overlapping effects of the four. While further and in-depth analyses could provide insight on the possible separate effect of each component of the model, these are highly dependent on the existing repertoire of knowledge on the four components, which is still absent today. Further, it must be considered that the model was validated only in the context of Philippine multigenerational basic education schools with large populations (60 faculty members or more). This was to ensure equal representation of male and female teachers in the data. Further, the lasting impact of the period effects that were considered was not statistically measured but analytically assumed.

Hence, this study opens opportunities for further research. First, validation of the model could be made in other fields, particularly where the turnover rate is high. Second, the applicability of the model as a lens in analyzing IG studies that employ quantitative data gathering procedures could also be explored.

## REFERENCES

Aguirre, E. B., & Faller, Jr., S. D. (2018). Lived stories of mid-career teachers: Their struggles with millennial learners in the Philippines. *Journal of Educational and Social Research*, 8(1), 39-50. <https://doi.org/10.2478/jesr-2018-0005>.

- Alcasid, E., Peralta, L., Pinlac, M. A., Ramirez, E., & Shimada, M. (2017). *#FILLENIALS: Understanding the Filipino millennial generation*. [https://www.academia.edu/33733065/Understanding\\_the\\_Filipino\\_Millennial\\_Generation.pdf](https://www.academia.edu/33733065/Understanding_the_Filipino_Millennial_Generation.pdf).
- Alwin, D. F., & McCammon, R. J. (2003). Generations, cohorts, and social change. In J. T. Mortimer, & M. J. Shanahan, *Handbook of the Life Course* (pp. 23-49). Kluwer Academic/Plenum Publishers. [https://doi.org/10.1007/978-0-306-48247-2\\_2](https://doi.org/10.1007/978-0-306-48247-2_2)
- Amarya, S., Singh, K., & Sabharwal, M. (2018). Aging process and physiological changes. In G. D'Onofrio, A. Greco, & D. Sancarlo (Eds.), *Gerontology* (pp. 3-24). InTechOpen. <https://doi.org/10.5772/intechopen.76249>
- Amayah, A. T., & Gedro, J. (2014). Understanding generational diversity: Strategic human resource management and development across the generational “divide.” *New Horizons in Adult Education & Human Resource Development*, 26(2), 36-48. <https://doi.org/10.1002/nha3.20061>
- Axonify Inc. (2013). *5 training must haves for a multi-generational workforce: A knowledge series white paper*. Axonify Inc.
- Barabaschi, B. (2015). Intergenerational solidarity in the workplace: Can it solve Europe’s labor market and social welfare crises? *Journal of Workplace Rights*, 1-11. <https://doi.org/10.1177/2158244015621464>
- Bell, A. (2020). Age period cohort analysis: A review of what we should and shouldn’t do. *Annals of Human Biology*, 47(2), 208-217, <https://doi.org/10.1080/03014460.2019.1707872>.
- Bolser, K., & Gosciej, R. (2015). Millennials: Multi-generational leaders staying connected. *Journal of Practical Consulting*, 5(2), 1-9.
- Bongco, R. T., & Abenes, R. D. (2019). Clash of spheres – The paradox of being a female teacher in the Philippines. *Beijing International Review of Education*, 1(2-3), 443-459. <https://doi.org/10.1163/25902539-00102012>.
- Boysen, P. I., Daste, L., & Northern, T. (2016). Multigenerational challenges and the future of graduate medical education. *Ochsner Journal*, 16(1), 101-107.
- Buckley, P., Viechnicki, P., & Barua, A. (2015, October 16). *A new understanding of millennials: Generational differences reexamined*. <https://www2.deloitte.com/us/en/insights/economy/issues-by-the-numbers/understanding-millennials-generational-differences.html>
- CBS. (2017). *The challenges of managing a multigenerational workforce* [White paper]. CyQuest Business Solutions, Inc.
- Čič, Ž. V., & Žižek, S. Š. (2017). Intergenerational cooperation at the workplace from the management perspective. *Naše Gospodarstvo/Our Economy*, 63(3), 47-59. <https://doi.org/10.1515/ngoe-2017-0018>.
- Cumming-Potvin, W. M., & MacCallum, J. A. (2010). Intergenerational practice: Mentoring and social capital for twenty-first century communities of practice. *McGill Journal of Education*, 45(2), 305-323. <https://doi.org/10.7202/045610ar>



- Delelis, M. G., Talosig, G. C., Lardera, M. G., Sarmiento, S. J., & Macabaddad, R. C. (2018). E-gadgets of generation X and millennials: Their social life. *International Journal of Advanced Research in Management and Social Sciences*, 7(2), 78-94.
- Dimock, M. (2019). *Defining generations: Where millennials end and generation Z begins*. <http://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/> September 20, 2019
- Ertürk, E. (2015). A comprehensive approach to the role of information and communication technology (ICT) in globalization. *Journal of International Social Research*, 8(38), 359-365. <https://doi.org/10.17719/jisr.20153813652>.
- Geeraerts, K., Vanhoof, J., & Van den Bossche, P. (2018). Teachers' intergenerational advice and information seeking: Content matters! *Journal of Professional Capital and Community*, 3(4), 256-271. <https://doi.org/10.1108/JPCC-11-2017-0026>.
- Gordon, P. A. (2018). Age diversity in the workplace. In C. D. Aquino, & R. Robertson (Eds.), *Diversity and inclusion in the global workplace* (pp. 31-47). [https://doi.org/10.1007/978-3-319-54993-4\\_2](https://doi.org/10.1007/978-3-319-54993-4_2).
- Howe, N., & Strauss, W. (2007). The next 20 years: How customer and workforce attitudes will evolve. *Harvard Business Review*, 85(7-8), 41-52.
- Ivantsova, E., & Sivén, T. (2016). *Intergenerational knowledge sharing within two case studies* [Master's thesis, Åbo Akademi University, Turku, Finland].
- Jaros, S. J. (2010). *A comparative analysis of intergenerational conflict between women in the workplace* [Thesis, Seton Hall University, South Orange, New Jersey, USA]. <http://scholarship.shu.edu/theses/12>.
- Kazak, E., & Polat, S. (2018). School administrators' instructional leadership behaviors, intergenerational atmosphere, and intergenerational learning in schools. *Journal of Intergenerational Relationships*, 16(4), 441-462. <https://doi.org/10.1080/15350770.2018.1489330>.
- Lin, C. (2019). Understanding cultural diversity and diverse identities. In W. Leal Filho, A. Azul, L. Brandi, P. Özuyar, & T. Wall. (Eds.), *Quality education, encyclopedia of the UN sustainable development goals*, (pp. 1-10). Springer, Cham. [https://doi.org/10.1007/978-3-319-69902-8\\_37-1](https://doi.org/10.1007/978-3-319-69902-8_37-1).
- Lituañas, C. R. (2017). *An inquiry at the millennial youth spiritual identity: Experiences of DLSU students* (pp. 1-12) [Paper presentation]. The 10th DLSU Arts Congress De La Salle University, Manila.
- Löfgren, K., Niemi, E., Mäkitalo-Siegl, K., Mekota, A.-M., Ojala, M., Fischer, F., Kahlert, J., Cernochova, M., Achterberg, F., Haak, E., Peltonen, A., Prokysek, M., & Heikkinen, P. (2013). Meeting the challenges of generational change in the teaching profession: Towards a European model for intergenerational teacher collaboration. *Educational Research eJournal*, 2(2), 107-119. <https://doi.org/10.5838/erej.2013.22.03>.

- Macapagal, M. E., Ofreneo, M. A. P., Montiel, C. J., & Nolasco, J. M. (2013). *Social Psychology in the Philippine context*. Ateneo De Manila University Press.
- Mamun, C. A., & Hasan, M. N. (2017). Factors affecting employee turnover and sound retention strategies in business organization: A conceptual view. *Problems and Perspectives in Management*, 15(1), 63-71. [https://doi.org/10.21511/ppm.15\(1\).2017.06](https://doi.org/10.21511/ppm.15(1).2017.06).
- McCrinkle, M. (2014). *The ABC of XYZ: Understanding the global generations*. McCrinkle Research Pty Ltd.
- McLeod, S. (2017). *Developmental psychology*. <https://www.simplypsychology.org/developmental-psychology.html>
- McLeod, S. (2018). *Erik Erikson's stages of psychosocial development*. <https://www.simplypsychology.org/Erik-Erikson.html>
- Novotný, P., & Brücknerová, K. (2014). Intergenerational learning among teachers: An interaction perspective. *Studia Paedagogica*, 19(4), 45-79. <https://doi.org/10.5817/SP2014-4-3>.
- Ota, H., Giles, H., & Somera, L. P. (2007). Beliefs about intra- and intergenerational communication in Japan, the Philippines, and the United States: Implication for older adults' subjective well-being. *Communication Studies*, 58(2), 173-188. <https://doi.org/10.1080/10510970701341139>.
- Pew Research Center. (2015). *The whys and hows of generations research*. <http://www.people-press.org/2015/09/03/the-whys-and-hows-of-generations-research/>
- Polat, S., & Kazak, E. (2015). Primary school teachers' views on intergenerational learning. *Educational Sciences: Theory & Practice*, 15(5), 1189-1203. <https://doi.org/10.12738/estp.2015.5.2523>.
- PwC. (2015). *The female millennial: A new era of talent*. <https://www.pwc.com/female-millennial>.
- Reyes, J. J. C., & Norona, M. I. (2019). *An employee retention model for millennials in the Philippine telco industry* [Paper presentation]. Proceedings of the International Conference on Industrial Engineering and Operations Management, Bangkok, Thailand, March 5-7, 2019.
- Saillant, F. (2017). *Diversity, dialogue and sharing*. United Nations Educational, Scientific and Cultural Organization.
- Salvosa, H. C., & Hechanova, M. R. M. (2021). Generational differences and implicit leadership schemas in the Philippine workforce. *Leadership & Organization Development Journal*, 42(1), 47-60. <https://doi.org/10.1108/LODJ-08-2018-0314>.
- Sayers, R. M. (2006). *Australia's changing workplace: A generational perspective* [Doctoral dissertation, RMIT University, Melbourne, Australia].
- Slåtten, T., Svensson, G., & Svavi, S. (2011). Service quality and turnover intentions as perceived by employees: Antecedents and consequences. *Personnel Review*, 40(2), 205-221. <https://doi.org/10.1108/004834811111106084>.

- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>.
- Tay, A. (2011). Managing generational diversity at the workplace: Expectations and perceptions of different generations of employees. *African Journal of Business Management*, *5*(2), 249-255. <https://doi.org/10.5897/AJBM10.335>.
- Tempest, S. (2003). Intergenerational learning: A reciprocal knowledge development process that challenges the language of learning. *Management Learning*, *34*(2), 181-200. <https://doi.org/10.1177/1350507603034002002>
- Tengco-Pacquing, M. C., Bustamante, R. N., Cabanban, A. P. E., Cosare, M. B. M., & Gamez, V. A. C. C. (2019). Positive framing effect: A mixed method study on the buying behavior of Filipino millennials. *North American Journal of Psychology*, *21*(1), 151-164.
- Ting, H., Lim, T.-Y., de Run, E. C., Koh, H., & Sahdan, M. (2018). Are we baby boomers, Gen X and Gen Y? A qualitative inquiry into generation cohorts in Malaysia. *Kasetsart Journal of Social Sciences*, *39*(1), 109-115 <http://dx.doi.org/10.1016/j.kjss.2017.06.004>.