

**IMPACT ASSESSMENT FOR TEACHERS' PEDAGOGICAL CONTENT
KNOWLEDGE FOR TEACHING ENGLISH CONDUCTED BY THE COLLEGE OF
EDUCATION, CENTRAL MINDANAO UNIVERSITY, MARAMAG, BUKIDNON,
PHILIPPINES**

**Jenyliza T. Ucang¹, Anecil S. Quijano-Pagutayao², Freddielyn B. Pontemayor³,
Vida V. Villanueva⁴, Ma. Mea Stephanie G. Salubo⁵**

^{1,3,4,5}College of Education, Central Mindanao University, Bukidnon, Philippines

²College of Agriculture, Central Mindanao University, Bukidnon, Philippines

Abstract

This research assesses the effect of the community extension programs implemented by the College of Education of Central Mindanao University, Philippines, to improve the pedagogical content knowledge (PCK) of Valencia City English teachers. Attuned to the university's vision of providing quality instruction, research, extension, and production, the program aimed to contribute to the integrated development of educational stakeholders through focused capacity building interventions. In particular, the research was sought to (1) present the demographic and work profiles of the teacher-participants, and (2) evaluate the perceived effects of the extension activities on improvements in knowledge, teaching capabilities, attitudes, values, social behavior, gender sensitivity, economic empowerment, and environmental awareness.

A descriptive research design was utilized, utilizing a pilot-tested and validated survey questionnaire with added structured interviews and focus group discussion. Nineteen responding teachers who had participated in the extension program were respondents. Descriptive statistics such as frequency and percentage distributions were utilized to examine participant profiles, while comparative analysis was done to assess changes across key domains pre- and post-intervention.

Results indicated marked improvements in all areas measured. Participants indicated greater mastery of pedagogical approaches, raised professional values and attitudes, greater confidence in advancing inclusive and gender-sensitive instruction, and increased commitment to sustainable classroom practice. Most importantly, the program also aided their economic progress through professional development and career mobility. These findings highlight the potential of university-based extension programs in fostering teacher growth and improving instructional quality in underserved educational contexts

Keywords: Impact Assessment, Knowledge, Attitudes & Values, Skills, Gender, Economics, Extension Program, Program Evaluation

INTRODUCTION

State universities and colleges (SUCs), and even more so state higher education institutions (HEIs), are not only tasked with furthering instruction and research but also community change through responsive extension and production services. Central Mindanao University (CMU), a state comprehensive university in Maramag, Bukidnon, Philippines, actualizes this quadruple mandate by concerted academic and community-focused efforts that ensure inclusive growth. Of these, the university's extension programs—based on the disciplines of education, agriculture, science, and the arts—are critical vehicles for knowledge sharing, stakeholder interaction, and social innovation.

CMU extension work goes well beyond traditional service provision. Based on the values of empowerment and co-education, these programs focus on participatory knowledge sharing, experience, and best practice transfer between the academe and the community. Based on the Institute of Forestry (n.d.), this facilitation focuses on self-reliance through empowering communities to determine their own needs, learn appropriate knowledge, and grow transformative attitudes and behaviors. University-community partnerships, therefore, become vehicles for individual and collective agency.

The strategic importance of extension programs in SUCs is supported by national policy. The Commission on Higher Education (CHED), in Memorandum Order No. 52 (2016), calls for the institutionalization and reorientation of extension activities to cater to inclusive development objectives. Similarly, Republic Act No. 7722 charges HEIs with mobilizing educational specialist expertise in redressing socio-economic inequalities through localized and

sustainable interventions. Literature supports this call: Holland, Jones, and Kardan (2015) posit that participatory extension approaches heavily contribute to the success and sustainability of development initiatives. Lauzon (1997) also highlights that non-formal, community-level educational activities play a significant role in developing self-help capacities and strengthening resilient communities.

CMU's extension thrusts of the College of Education are evidence-based and interdisciplinary in nature. Extension projects are well-designed and delivered in keeping with the vision, mission, and institutional objectives of the university as well as national and regional development priorities. Academicians from ten universities collaborate with local government units (LGUs), non-governmental organizations (NGOs), and other partners. This multi-sectoral collaboration allows for the sharing of competence and resources to create holistic, context-based solutions to urgent educational and societal issues.

An excellent example of this collaborative extension is the provision of pedagogical content knowledge (PCK)-based teacher training programs for public school teachers, especially those with specialization in English instruction. These programs are not only formulated to strengthen teachers' subject competencies but also to foster comprehensive professional growth in affective, cognitive, social, and environmental areas. Redfearn, Parsons, and Drewnoski (2016) maintain that extension teams for interdisciplinary applications play a vital role in addressing intricate, community-based issues by combining multiple perspectives and approaches.

Nevertheless the large scope and coverage of CMU's extension programs, there is an ongoing need to conduct rigorous impact evaluation in order to ascertain their effectiveness, relevance, and sustainability (Tan, et al., 2025). Without systematic monitoring, the transformational value of such programs may be limited to anecdotal or remain untapped. To this end, the current research was conducted to assess the impacts of the College of Education extension programs, specifically those focused on building the pedagogical capacity and civic involvement of secondary English teachers in Valencia City, Bukidnon. The research aims to contribute empirical data regarding how these programs affect learning acquisition, skill building, professional values, gender responsiveness, economic empowerment, and environmental care among teacher-beneficiaries.

Methodology

Research Design

The research used a descriptive research design, which is suitable for studying the characteristics of participants and assessing the effects of a community-based extension program. The ultimate purpose was to determine the effect of the program on participants' pedagogical content knowledge (PCK) and professional growth in various domains, such as cognitive (knowledge), psychomotor (skills), affective (values and attitudes), social, gender, economic, and environmental aspects.

Quantitative information was collected via a systematic survey tool on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to ascertain perceived change in participants' knowledge, skills, and behaviors prior to and after the intervention. The tool was thoroughly validated by experts in content and pilot tested with non-participant educators to attain reliability and contextual appropriateness.

For statistical analysis, descriptive statistics like frequency counts and percentages were utilized to profile participants, whereas Wilcoxon signed-rank test were utilized to examine differences between pre- and post-intervention responses, with the significance of the extension program's effect determined.

In order to triangulate the quantitative results and investigate into richer insights, focus group discussions (FGDs) were carried out with purposively selected participants. The FGD sessions provided an opportunity for participants to narrate stories, comment on shifts in their pedagogical approaches, and assess the wider personal and professional impact of the extension activities. These qualitative stories enriched the survey information and provided an in-depth comprehension of the program's impact.

All data-gathering activities were strictly done in compliance with ethical research practices, upholding informed consent, confidentiality, voluntary response, and cultural sensitivity. The questionnaire was given in both English and Cebuano to allow participants to give their preferred language and to enable easy comprehension of all statements.

Locale of the Study

The research was undertaken in Valencia City, which is in the province of Bukidnon, a landlocked region in Northern Mindanao, Philippines. Bukidnon is famed for its productive highland terrain and socio-economic composition of indigenous groups, small farmers, and rural communities. The province has a rolling plateau with a mean elevation of 915 meters above sea level and well-suited for diversified agriculture. Its geographic position unites it with Davao in the south and Misamis Oriental in the north, making it accessible and useful as a location for educational outreach.

Valencia City, centrally located in Bukidnon, covers an area of 63,126 hectares, more than half of which is used for agriculture. Rice, corn, sugarcane, and other industrial products are major crops. The socio-economic characteristics of the region, such as high poverty levels and restricted access to professional development for teachers, make it a relevant setting for the administration and evaluation of education-centered extension programs.

This area was chosen due to its designation as one of the university's extension adopted communities, along with its expressed need for capacity-building projects within English language teaching at the secondary level.

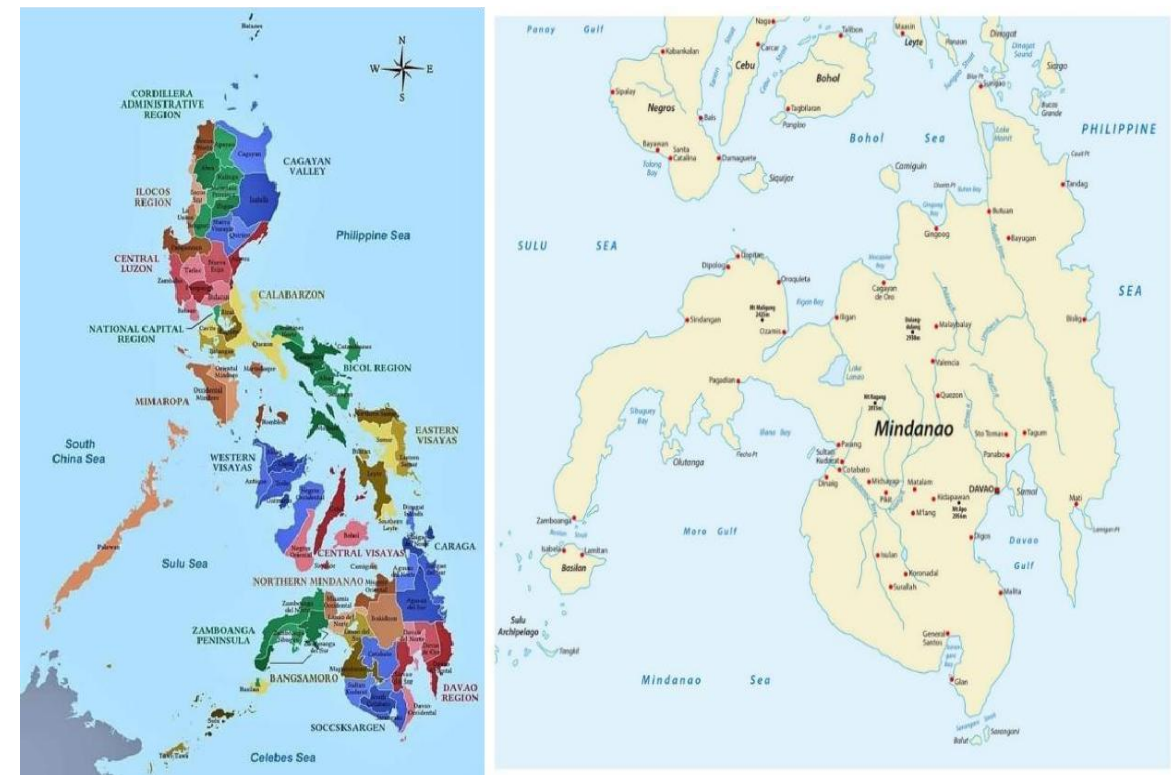




Figure 1. Map of the Philippines and Bukidnon showing the locale of the study

RESULTS AND DISCUSSION

Personal Profile of the Participants

Table 1 presents the demographic profile of the 19 teacher-participants from Valencia City, Bukidnon. Most (68.4%) came from Valencia National High School, considering the concentration of project beneficiaries within this central public school. The others were dispersed in Guinoyoran, Tongantongan, Batangan, Banlag, and Lurugan National High Schools. With regard to teaching experience, the largest group (21.1%) had 10 years of experience, followed by the rest having a broad range between 2 and 35 years.

Age-wise, the majority of participants were in the 21–30 and 31–40 age ranges, indicating a majority of early- to mid-career teachers. This demographic makeup is different from that found by Mapala (2022), where younger mean ages were reported among workers at daycare centers, suggesting more extensive professional involvement in the present sample. The participants were ethnically mostly Cebuano (78.9%), which is in accordance with the cultural and linguistic population of Northern Mindanao (Ucang et al., 2022; PSA, 2010). Educational institutions also mirrored professionalism, with 63.2% possessing a bachelor's degree and 36.8% having attended graduate school.

All these traits indicate that the participants were appropriately placed to take advantage of capacity-building interventions, having adequate teaching experience and level of education to turn training into quality classroom practice.

Table 1. Distribution of the participants according to Personal Profile

Characteristics	Frequency	Percentage
School		
Valencia National High	13	68.4
School	2	10.5
Guinoyoran National High	1	5.3
School	1	5.3
Tongantongan National	1	5.3
High School	1	5.3
Batangan National High		
School		

Banlag National High School		
Lurugan National High School		
Years in Teaching		
2	1	5.3
4	1	5.3
10	4	21.1
11	1	5.3
12	1	5.3
13	1	5.3
14	1	5.3
15	3	15.8
16	1	5.3
19	1	5.3
27	2	10.5
34	1	5.3
35	1	5.3
Age		
21-30	6	4
31-40	6	17
41-50	3	61
51-60	3	9
61-70	1	9
Ethnic Origin		
Cebuano	15	78.9
Ilocano	4	21.1
Educational Attainment		
College Graduate	12	63.2
MS Graduate	7	36.8

Impact Assessment of the Extension Services

The influence of the Pedagogical Content Knowledge (PCK) seminar series was measured against seven dimensions: knowledge, skills, values and attitudes, social, gender, economic, and environment. The subsequent subsections present in-depth analyses of each dimension.

Acquired Knowledge

The statistics reported in Table 2.1 reveal that the participants overall have a positive self-perception of having learned a good solid base of knowledge in teaching English, as supported by a weighted mean of 4.36, classified under the category of "Agree". Interestingly, the most approved item is the comprehension of the principles of the teaching and learning process by the participants with a mean of 4.52, that is under "Strongly Agree." This indicates a strong theoretical basis, most probably emanating from teacher education through formal means. Other measures, including pedagogies, content knowledge, and language components (means from 4.26 to 4.47), indicate firm pedagogical content knowledge (PCK), corroborating Shulman's model which highlights content integration and pedagogy as keys to good teaching.

Participants also indicated high rates of agreement with regards to knowing about learners' physical, social, and intellectual development, which is essential in using learner-centered instructional strategies based on Vygotsky's and Piaget's theories. Moreover, reactions indicate participants' confidence with regard to understanding a variety of teaching strategies and the prosodic characteristics of oral speech, which are significant in communicative competence in English. Yet a slightly lower mean of 4.22 in understanding the behavior of 21st-century

learners indicates a possible gap in addressing the changing nature of today's students, including digital literacy, socio-emotional sophistication, and varied learning style.

The results also indicate a positive self-evaluation in gender-inclusive language instruction, literacy acquisition, and literary genre appreciation. These indicate that participants do have an appreciation for inclusive and culturally responsive pedagogy, which is getting more prominence in contemporary education frameworks. Beyond the generally encouraging ratings, the dominance of "Agree" over "Strongly Agree" should signal a need for more in-depth practical work and increased confidence in enacting these areas of knowledge in actual classroom settings.

These findings have various implications. Although the participants have robust theoretical knowledge, the evidence can suggest a deficit in application or adaptive expertise, which is most essential in multicultural classroom settings. Embedding stronger practicum experiences, amplifying reflective practice, and offering ongoing professional development to address 21st-century learning settings can fill such gaps. Additionally, the use of performance-based measures and mentoring can facilitate transfer of theoretical knowledge to practical effectiveness. In general, the results reinforce the importance of well-rounded teacher preparation programs while also identifying areas that need continued assistance and strengthening in order to fully equip English teachers to work in changing teaching environments.

Table 2.1 Acquired Knowledge of the Participants

INDICATOR	DESCRIPTION	
	Mean score	Descriptive Value
1. I have knowledge in understanding various pedagogies, content and knowledge in teaching English.	4.47	Agree
2. I have knowledge in understanding the relationship of physical, social and cognitive development in teaching English.	4.47	Agree
3. I have knowledge on the principles of teaching and learning process.	4.52	Strongly Agree
4. I have knowledge on the various strategy in Teaching and Learning Process.	4.31	Agree
5. I have knowledge on the behavior of the 21 st century children.	4.22	Agree
6. I have the knowledge on reading style, listening strategies, material viewed, vocabulary development, different literary genres, oral and written language, verbal and nonverbal cues, and use passive voice in varied contexts.	4.47	Agree
7. I have the knowledge on the proper application of gender and language skills.	4.31	Agree

8. I have the knowledge on Literacy Development and Reading in English.	4.26	Agree
9. I have the knowledge on recognizing prosodic features: volume, projection, pitch, stress, intonations, juncture, and speech.	4.31	Agree
10. I have the knowledge in expressing appreciation for entertaining texts (anecdotes, jokes, fables, myths, tales) by recognizing the punch lines.	4.26	Agree
Weighted Mean	4.36	Agree

- Legend:
- 1.00-1.50 - Strongly Disagree
 - 1.51-2.50 - Disagree
 - 2.51-3.5 - Undecided
 - 3.51 – 4.5 - Agree
 - 4.51-5 - Strongly Agree

Acquired Skills

The outcomes of Table 2.2 identify a positive and significant change in the practical teaching capabilities of the participants, as indicated by the overall weighted average of 4.31 falling in the "Agree" category. This suggests that participants felt they improved their teaching competencies in a broad range of teaching areas, such as the practice of differentiated instruction, knowledge of learner development, and practice of language-based pedagogies. These outcomes indicate that the professional development seminar effectively facilitated the participants in converting theoretical knowledge into workable teaching strategies.

Significantly, the highest ratings were assigned to the use of prosodic features (mean = 4.42), implying that participants developed an excellent grasp of expressive oral communication in English—an important ability to enhance successful classroom instruction. Analogously, competencies in the pedagogy of instruction and learning (mean = 4.36), as well as in multilingual areas like vocabulary acquisition, verbal and non-verbal signals, and comprehension of genres, affirm the participants' enhanced instructional delivery. These improvements indicate that the seminar offered functional, implementable frameworks that participants could easily integrate into their instructional practice.

This result affirms the argument advanced by Obmero (2020), who highlighted that teacher preparation based on contextual and community-based learning is better suited to building practical teaching skills. Instead of depending entirely on theory, such preparation encourages the deployment of pedagogical principles in actual classroom environments. Through this process, it closes the widely referenced theory-practice disconnect in teacher training (Zeichner, 2012). This is especially critical for English teachers, whose effectiveness relies not just on their content knowledge but also on their capacity to connect with students through interactive, culturally relevant, and developmentally sensitive approaches.

The lessons of these results are twofold. In the first place, they validate the merit of prolonged, skill-based professional development that is richly grounded in contextual imperatives. When instructors have the tools and time to practice teaching methods in environments that reflect their own classrooms, they are better able to keep and implement those skills in useful ways. Second, it emphasizes the value of a developmental model of teacher preparation, one that increasingly combines content knowledge with pedagogical skill

development. Programs based on experiential learning, simulations, and reflective practice generate deeper internalization and long-term teaching quality improvements.

Moreover, current research affirms this stance. For instance, Darling-Hammond et al. (2017) found effective professional development to be one that is content-based, includes active learning, and involves continuous support—characteristics clearly evident in the seminar under consideration in this study. Similarly, Kennedy (2016) contended that programs of teacher training need to address both instructional practices' substance and usability in order to meaningfully impact teaching behavior. Thus, the findings in Table 2.2 are not merely a result of short-term gain but suggest the underlying changes that can potentially result in better student results when applied consistently.

Table 2.2. Acquired Skills of the Participants

INDICATOR	DESCRIPTION	
	Mean Score	Descriptive Value
1. I have skills in understanding various pedagogies, content and knowledge in teaching English.	4.31	Agree
2. I have skills in understanding the relationship of physical, social and cognitive development in teaching English.	4.31	Agree
3. I have skills on the principles of teaching and learning process.	4.36	Agree
4. I have skills on the various strategy in Teaching and Learning Process.	4.21	Agree
5. I have skills in dealing the behavior of the 21 st century children.	4.26	Agree
6. I have skills on reading style, listening strategies, material viewed, vocabulary development, different literary genres, oral and written language, verbal and nonverbal cues, and use passive voice in varied contexts.	4.36	Agree
7. I have proper application of gender and language skills.	4.26	Agree
8. I have skills on Literacy Development and Reading in English.	4.31	Agree
9. I have skills on recognizing prosodic features: volume, projection, pitch, stress, intonations, juncture, and speech.	4.42	Agree
10. I have skills in expressing appreciation for entertaining texts (anecdotes, jokes, fables, myths, tales) by recognizing the punch lines.	4.31	Agree
Weighted Mean	4.31	Agree

Legend:

1.00-1.50	-	Strongly Disagree
1.51-2.50	-	Disagree
2.51-3.5	-	Undecided
3.51 – 4.5	-	Agree
4.51-5	-	Strongly Agree

Value and Attitude Acquired

The statistics in Table 2.3 indicate a very high rate of affective commitment among participants as seen in a weighted mean of 4.61, which falls under the "Strongly Agree" category. This implies that not only do participants grasp theoretical and practical aspects of teaching English, but they have also internalized professional values, attitudes, and dispositions critical to learner-centered and inclusive education. The uniform "Strongly Agree" answers to all ten measures reflect a strongly ingrained belief in progressive pedagogic ideals, including the importance of varied pedagogies, the centrality of child development, and the avoidance of punishment-based discipline through the use of positive guidance. Strongest mean scores (4.68) are accorded beliefs regarding the need to understand pedagogical content and to utilize varied teaching techniques, particularly for tricky English subjects. This suggests that students view differentiated instruction as not only effective but necessary in promoting student interest and understanding. Holding the view that positive reinforcement is more effective than corporal punishment (mean = 4.66) confirms a values-based paradigm shift towards empathetic, trauma-informed pedagogies. This corresponds to UNESCO's (2021) promotion of positive discipline for building inclusive, respectful learning communities that promote student well-being and growth.

These results are seconded strongly by Gharty (2014) and Herath & Wijekoon (2010), who highlighted that teacher attitudes and beliefs are strong predictors of their actual classroom behaviors. Attitudinal congruence to student-centered and humanistic precepts implies that the training seminar was effective in cultivating reflective pedagogy—teachers are not just learning technical know-how but are becoming transformed in their ethical and affective commitments to teaching. In addition, respondents attested to the value of gender-sensitive language use, literary genre appreciation, and focus on prosodic features, which attests to an appreciation for both the technical and cultural aspects of English teaching.

The consequences of these findings are far-reaching. To begin, they underpin the essential role of affective learning areas in professional teacher training. Training programs that emphasize values like empathy, inclusiveness, and learner empowerment build a professional culture that not only provides information but also exemplifies ethical and culturally responsive conduct. Second, training has an impact on sustainable classroom change. When teachers internalize these values, they are more likely to develop emotionally safe, cognitively challenging, and socially just learning environments. Finally, affective engagement enhances teacher identity and resilience, leading to long-term professional fulfilment and effectiveness. Given these, teacher preparation and in-service training should automatically include values-centered training. Workshops and seminars need to transcend knowing skills to foster reflection, ethical judgments, and socio-emotional development. This way, prospective teachers are not only qualified to teach, but they are also change agents who govern with heart and integrity.

Table 2.3. Acquired Values and Attitudes of the Participants

INDICATOR	DESCRIPTION	
	Mean Score	Descriptive Value
1. I believe that understanding various pedagogies, content and knowledge in teaching English is essential to the learning process of learners.	4.68	Strongly Agree
2. I believe that understanding the relationship of physical, social and cognitive development in teaching English makes the learning process easier.	4.63	Strongly Agree

3. I believe that the principles of teaching and learning process aids the teacher in creating working conditions to more effective and improves quality of teaching.	4.63	Strongly Agree
4. I believe that having various teaching strategies in English will help the students learn quickly especially in difficult topics.	4.68	Strongly Agree
5. I believe that motivating the learner with positive guidance is better than the use of physical punishment.	4.66	Strongly Agree
6. I believe that teaching English using different pedagogies help the learners enhance their reading style, listening strategies, material viewed, vocabulary development, different literary genres, oral and written language, verbal and nonverbal cues, and use passive voice in varied contexts.	4.63	Strongly Agree
7. I believe that proper application of gender and language enhances the learners confident and communication skills.	4.63	Strongly Agree
8. I believe that Literacy Development and Reading in English develop learners' appropriate mechanisms such as schema to better understand a text, predictions about the text, distinguish fact from opinion, and react to assertion made by the author in a text.	4.52	Strongly Agree
9. I believe that recognizing prosodic features (volume, projection, pitch, stress, intonations, juncture, and speech) strengthen the learners listening skills in predicting outcomes of a verbal exchange and possible effects on the speakers.	4.57	Strongly Agree
10. I believe that expressing appreciation for entertaining texts (anecdotes, jokes, fables, myths, tales) by recognizing the punch lines supplement appropriate colloquial or idiomatic word or expression as a substitute for another word or expression.	4.52	Strongly Agree
Weighted Mean	4.61	Strongly Agree

Legend:

1.00-1.50	-	Strongly Disagree
1.51-2.50	-	Disagree
2.51-3.5	-	Undecided
3.51-4.5	-	Agree
4.51-5.0.	-	Strongly Agree

Social Awareness

Table 2.4 findings, with the weighted mean score of 4.25 ("Agree"), reveal that the participants have gained great confidence in utilizing pedagogical content knowledge (PCK) in socially diverse classrooms. Such indicators as awareness of cognitive, physical, and social development of students (mean = 4.26), identification of behavior of learners in the 21st century (mean = 4.10), and utilization of differentiated approaches such as styles of reading, listening,

and verbal/non-verbal communication (mean = 4.31) indicate teachers' increasing consciousness of socio-cultural aspects of learning. The highest mark (mean = 4.42) under the teaching strategies category verifies that training not just enhanced theoretical competence but also equipped teachers with context-sensitive tools for actual classroom dynamics.

The finding testifies to Narayan and McCracken's (1998) contention that social interaction and stakeholder participation in education development improve the effectiveness of teaching. Socially aware teachers exhibit greater relational intelligence, responsiveness to culture, and empathy, all of which are manifestations of inclusive classroom learning environments. Also, greater confidence in these dimensions indicates that the training was effective in breaking the disconnect between theory and practice, which is often reported to be a key obstacle to teacher performance (Darling-Hammond et al., 2017).

The implication is that long-term instructional improvement is not only contingent upon cognitive expertise but also upon social-emotional competence. Teachers who are attuned to students' varied social and cultural contexts are more apt to create safe and responsive learning environments, especially for learners from marginalized or vulnerable groups. This is consistent with requiring teacher professional development courses to include social awareness training, with a focus on empathy, active listening, and adaptive classroom interaction strategies. It also is consistent with international education priorities like UNESCO's Global Citizenship Education (GCED) that foster respect for diversity, equity, and intercultural understanding in classrooms.

Table 2.4. Social Assessment of the Participants

INDICATOR	DESCRIPTION	
	Mean Score	Descriptive Value
1. I feel confident that I have learned various pedagogies, content, and knowledge in teaching English.	4.26	Agree
2. I feel confident that I have profound understanding of the relationship of the physical, social, and cognitive development of learners in teaching English.	4.26	Agree
3. I feel confident that I have ample knowledge on the principles of the teaching and learning process.	4.05	Agree
4. I feel confident that I know various strategies in teaching and learning process.	4.42	Agree
5. I feel confident that I have ample understanding on the behavior of 21 st century children.	4.10	Agree
6. I feel confident to utilize various method in teaching English which include reading styles, listening strategies, materials viewing, vocabulary development, different literary genres, oral and written language, verbal and nonverbal cues, and use passive voice in varied contexts inside the classroom.	4.31	Agree
7. I feel confident to tackle and utilize gender and language skills in teaching.	4.21	Agree
8. I believe that Literacy Development and Reading in English develop learners' appropriate mechanisms such as schema to	4.36	Agree

better understand a text, predictions about the text, distinguish fact from opinion, and react to assertion made by the author in a text.		
9. I feel confident that I am able to easily recognize prosodic features: volume, projection, pitch, stress, intonations, juncture, and speech and teach it inside the classroom.	4.26	Agree
10. I feel confident that I have profound knowledge in expressing appreciation for entertaining texts (anecdotes, jokes, fables, myths, tales) by recognizing the punch lines and utilizing these inside the classroom.	4.31	Agree
Weighted Mean	4.25	Agree

Legend:

1.00-1.50	-	<i>Strongly Disagree</i>
1.51-2.50	-	<i>Disagree</i>
2.51-3.5	-	<i>Undecided</i>
3.51-4.5	-	<i>Agree</i>
4.51-5.0.	-	<i>Strongly Agree</i>

Gender Assessment

Table 2.5 indicates the gender sensitivity of the participants at a high level, as their weighted mean is 4.50 and was interpreted as "Strongly Agree." The findings indicate an evident gender-responsive principle awareness and internalization, as indicated through high ratings on scales such as promoting all-gender participation (mean = 4.52), challenging gender stereotypes (mean = 4.47), and increasing leadership opportunities without regard to gender identity (mean = 4.52). These results indicate that the PCK in English seminar series effectively mainstreamed gender sensitivity as a key aspect of teaching practice.

This aligns with the United Nations Educational, Scientific and Cultural Organization's (UNESCO, 2019) gender-responsive pedagogy framework and directly contributes to the attainment of Sustainable Development Goal 5: Gender Equality. That positive ratings reflect not merely awareness but a high level of commitment on the part of instructors to counteract gender biases, promote inclusive classroom dialogue, and encourage open participation by students of all gender identities.

These outcomes are important considering that studies persistently discover that gender-biased practices—either explicit or implicit—affect uneven educational outcomes (Unterhalter et al., 2020). In creating gender sensitivity, training has equipped instructors to introduce transformative pedagogies which confirm the identity, dignity, and agency of all learners. Teachers trained accordingly tend to employ gender-fair language, select inclusive learning resources, and provide safe spaces for learning, especially for girls and gender-diverse students.

The inference is that gender mainstreaming in professional education is not a choice but a necessity. When built systematically into professional development programs, it supports equity-oriented teaching practices, inclusive school culture, and the overall objectives of social justice in education. In addition, gender-sensitive teachers can be role models and change agents, shaping school policies and practices to support equitable learning environments.

Table 2.5. Gender Assessment of the Participants

INDICATOR	DESCRIPTION	
	Mean Score	Descriptive Value

1. The PCK in English seminar series campaigned to encourage all genders to participate in the activities set by the implementers.	4.52	Strongly Agree
2. THE PCK in English seminar series raised awareness and imparted good practices on combating gender stereotypes in the educational field.	4.47	Agree
3. THE PCK in English seminar series campaigned to promote all gender’s presence in the profession.	4.47	Agree
4. The PCK in English seminar series campaigned to empower everyone, regardless of gender, and promoted our presence at leading positions in the education sector.	4.52	Strongly Agree
5. The PCK in English seminar series promoted this training for awareness to all genders to have equal opportunities in the field.	4.52	Strongly Agree
Weighted Mean	4.50	Agree

Legend:

1.00-1.50	-	<i>Strongly Disagree</i>
1.51-2.50	-	<i>Disagree</i>
2.51-3.5	-	<i>Undecided</i>
3.51-4.5	-	<i>Agree</i>
4.51-5.0.	-	<i>Strongly Agree</i>

Economic Empowerment

The findings in Table 2.6 indicate that the participants saw great economic gains through involvement in the PCK in English seminar series, with a weighted mean of 4.32, which translates to "Agree." Indicators such as greater professional development (mean = 4.47), qualification for vertical career movement (mean = 4.26), taking part in public speaking events (mean = 4.26), and being motivated to create publishable learning modules (mean = 4.33) indicate that the training enhanced pedagogical skills as well as created new economic and career opportunities for the participating teachers. These results are in line with the work of Busiinge (2010) and Herrera (2010), who highlighted that extension programs and professional development programs play a crucial role in the socioeconomic empowerment of participants, particularly in rural or disadvantaged regions.

The assessment implies that the professional development program has acted as an upward mobility catalyst, allowing teachers to create credentials for promoting, leadership opportunities, and publication. In addition, speaking engagements derived from the training can result in honoraria and wider professional networks, which tend to open doors to consultancy, book writing, and training facilitation. Such a boost in professional identity and economic potential resonates with Sen's capability approach (1999), which assumes that development must increase people's freedoms and actual opportunities to live the lives they have reason to value. By offering relevant and applicable training, the program widened the abilities of the participants not only in instruction but also in income-generation and reputation-enhancing activities in the education field.

The inference is that investments in teacher capacity-building can have concrete economic returns. Teacher capacity-building programs, when well designed, are interventions not only for instructional enhancement but also for economic empowerment, especially for teachers in marginalized settings. Increased economic stability can also lead to increased motivation, reduced attrition, and increased commitment towards the teaching profession.

Training programs should therefore not be content-centered but include means of career advancement, financial education, and professional awareness to facilitate integral teacher development.

Table 2.6 Acquired Economic Assessment of the Participants

Indicator	Description	
	Mean Score	Descriptive Value
1. The PCK in English seminar series prompted t boost my professional growth in the field of teach English.	4.47	Agree
2. The PCK in English seminar qualified me for vertical mobility in the teaching rank.	4.26	Agree
3. The PCK in English seminar assisted me to multiple speaking engagements to share content knowledge learned from the seminar.	4.26	Agree
4. The PCK in English seminar encouraged me to craft a standardized module that I can use and get published in the near future if approved and proof by supervisors.	4.33	Agree
Weighted Mean	4.32	Agree

Legend:

- 1.00-1.50 - Strongly Disagree
- 1.51-2.50 - Disagree
- 2.51-3.5 - Undecided
- 3.51-4.5 - Agree
- 4.51-5.0. - Strongly Agree

Environmental Awareness

Table 2.7 shows that the respondents scored highly on environmental awareness, with a weighted mean score of 4.75 or "Strongly Agree." Indicators of awareness are disposing of waste properly after class presentations (mean = 4.73), use of recyclable and renewable materials in class activities (mean = 4.68), encouraging cleanliness (mean = 4.78), and encouraging environmentally friendly waste management practices in schools (mean = 4.78). These high scores strongly indicate that the training was effective in embedding ecologically responsible practices and behaviors among the teachers, consolidating their position as models of sustainability within school and society.

This result aligns with Perez and Cabrera (2013), who noted that local training schemes have a profound influence on educators' environmental behaviors. Teachers, as role models in the school community, can model and replicate sustainable environmental practices among students, parents, and school community members. The everyday habits established—such as segregation, recycling, and cleanliness in classrooms—have ripple effects, promoting environmental literacy and accountability in formal and informal education settings. Moreover, the sharing of green techniques among teachers demonstrates how environmental stewardship may be a shared value in school communities.

The implication is that incorporating environmental education in teacher training programs can spark the creation of green schools and sustainable communities. When teachers apply sustainability in the classroom, they encourage learners to practice the same at home and in their daily life. This resonates with the intentions of UNESCO's Education for Sustainable Development (ESD), which requires incorporating principles of sustainability in teaching and learning across all levels. When teachers are empowered to become champions for the environment, they are supporting not only better classroom cleanliness and student well-being

but also long-term ecological integrity of school environments. Environmental issues must not remain peripheral but should remain at the center of professional education, enhancing climate literacy, ecological values, and green innovations in schools.

Table 2.7 Impact Assessment of the Participants on Environment

INDICATOR	DESCRIPTION	
	Mean Score	Descriptive Value
1. I am aware of preserving the environment through t proper disposal of waste materials after classroom presentations of my students.	4.73	Strongly Agree
2. I am aware in conserving the environment by using renewable and recyclable as decoration materials and class activities.	4.68	Strongly Agree
3. I am aware in collecting and recycling unused materials to use as decoration in the classroom conser the environment.	4.73	Strongly Agree
4. I am aware in sharing my ideas to other English teachers in the school or nearby community on how to utilize recyclable materials as decoration and classroom materials.	4.68	Strongly Agree
5. I am aware on the importance of proper monitoring promoting cleanliness in the classroom.	4.78	Strongly Agree
6. I am aware in ensuring that the classroom area is fre of pets and pests to avoid diseases.	4.78	Strongly Agree
7. I am aware of maintaining the cleanliness of the classroom area ensure the safety of my students.	4.78	Strongly Agree
8. I am aware in promoting the implementation of environmentally sound waste management system in t school.	4.78	Strongly Agree
Weighted Mean	4.75	Strongly Agree

Legend:

1.00-1.50	-	Strongly Disagree
1.51-2.50	-	Disagree
2.51-3.5	-	Undecided
3.51-4.5	-	Agree
4.51-5.0.	-	Strongly Agree

Conclusion

The study results highlight the vital contribution of the Pedagogical Content Knowledge (PCK) extension program implemented by the College of Education at Central Mindanao University. The program benefited a group of majority mid-career teachers—mostly from Valencia National High School—who had different years of teaching experience, most of whom were Cebuano-speaking and had either a bachelor's or a master's degree. Such traits gave a good basis for knowledge transfer and skill upgrade.

The PCK-based intervention made an effective contribution to participants' pedagogical expertise, particularly in teaching English. Significant gains were realized in the acquisition of knowledge, instructional strategies, learner-focused methods, classroom management, and instructional self-efficacy. In addition, the series of seminars was able to address well-cutting issues such as gender sensitivity, environmental consciousness, and

teacher professional development. The teachers developed greater sensitivity to inclusive practices and manifested increased environmental responsibility in their classrooms.

Notably, the training also had tangible economic implications. Participants reported increased professional engagement, upward mobility, and enhanced academic productivity, including the development of teaching modules and involvement in speaking engagements. The overall weighted mean score of 4.44 across all domains indicates a high level of satisfaction and affirmation of the program's relevance, responsiveness, and transformative potential.

The research confirms that organized, multidisciplinary, and community-engaged extension programs have the potential to highly raise the competence of public school teachers, eventually improving instructional quality and leading to educational equity.

Recommendations

Based on the evidence and insights gained from the impact assessment, a number of recommendations are made to assure the scalability and sustainability of the PCK extension program. First, the College of Education needs to institutionalize follow-up programs through regular extension activities that take into account prevailing trends in pedagogy, the use of technology, and inclusive education. These initiatives need to coincide with regular upgrading in the K to 12 curriculum and 21st-century learning frameworks. Second, to expand the program's reach and stimulate comparative learning, the interventions should be replicated in other barangays and divisions of Bukidnon. This would also facilitate longitudinal and comparative impact studies that can measure differences in contextual outcomes. Third, support for intensified partnership with local government units (LGUs) and barangay councils is needed. Assigning focal persons to liaise with Central Mindanao University (CMU) will enhance sustainability, enhance logistical support, and foster collective ownership of the activities. Fourth, involving faculty needs to be promoted by institutionalizing policies favoring the dual role of the educators in both teaching and extension work. Granting safeguarded time and offering incentives for faculty involvement in extension activities will improve the quality of the programs and enhance CMU's commitment towards community development. Finally, a formal monitoring and evaluation (M&E) system must be integrated into all extension programs to monitor outputs, promote accountability, and inform improvements in the programs. Incorporating feedback mechanisms from participants will also help in ongoing improvement of the initiatives.

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