

Article

Teacher-Trainers' Digital Competency in Using Microsoft Copilot and Grammarly for Campus Journalism Course

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Abstract: This study examined teacher-trainers' digital competency in using Microsoft Copilot and Grammarly for campus journalism courses and developed a DigCompEdu-aligned training framework that reframed routine drafting and editing into auditable, classroom-ready practices. Using a quantitative correlational-descriptive design, every instrument provided six and six domain scores respectively, group differences were compared using independent-samples t -tests and ANOVAs with Welch corrections in the case of significance, and interrelationship between Copilot/Grammarly competencies were measured using a Pearson correlation. An expert content validation process and pilot reliability test were completed before the administration of a structured questionnaire to a purposely selected group of sixty campus journalism advisers, who clearly represented a larger population of one hundred at the Schools Division of Taguig City and the Pateros District II in compliance with occurrence of established ethical guidelines and informed consent. The results indicated a group which is predominantly at the early to mid-career stages, and with a high level of women-leaning respondents, mainly pursuing non-English specialization, and reported being well proficient on both tools. The strengths appeared regarding planning, writing, fast feedback, tone and clarity modulation, contrastive practices, and capture of evidence, but the competences in summarization, progress monitoring, facilitated reflection, lengthy diagnostics, and setting a goal were not supported. The differences between sexes, ages, educational levels, specialization, and experience in the selection of skills were not statistically significant. The observed positive correlation between Copilot and Grammarly skills highlighted the possibility of the existence of workflow habits that can be trained and shared. The findings informed the creation of the Magtangob Training Framework on Copilot-Grammarly Competency on the Campus Journalism, which is a quadrant-based model that combines Tandem Sprints (two-column traces), Assessment Trails (rubrics and ledgers), genre-specific resource packs with high-fidelity summaries, micro-conferences of five minutes, and peer-coaching clinics, which are aligned under the Sustainable Development Goal 4, 5, 9, and 16, ambisyon 204.

Keywords: Digital Competence, Microsoft Copilot, Grammarly, Campus Journalism, Teacher Training

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1. Introduction

Teacher education is increasingly integrating AI writing assistants to support lesson planning, feedback, and instructional management. Evidence suggests that Microsoft Copilot can enhance the quality and efficiency of lesson design, while higher-education pilots report benefits such as improved idea generation, grading support, and task automation that frees time for pedagogy [1], [2]. This need is especially pronounced in writing-intensive subjects such as journalism, where structured training has been linked

to better grammar awareness and increased writing confidence, and where broader sector analyses indicate that Copilot-type systems are reshaping required skills and task profiles—supporting the case for early, well-scaffolded adoption in schools [3].

In the Philippines, the policy during the management and regulation of student publications and the roles to be played by advisers are contained in Republic Act No. 7079; however, as empirical studies show, there is unequal adherence, insufficient training of advisers and limited budgets. More recent research also shows that the writing acquisition of student reporters can be promoted through the delivery of structured pedagogical information, and the artificial intelligence resources can complement planning, feedback, and resource selection under the condition that considerations of ethics and bias reduction are appropriately considered [4]. At the level of the Schools Division of Taguig City and Pateros, campus journalism requires sustained mentoring, copyediting, and newsroom-style workflows; studies suggest Copilot can support beat planning, prompt construction, and rubric-aligned exemplars, while pairing Copilot for planning with Grammarly for sentence-level refinement offers a practical pathway grounded in teachable and assessable media-literacy competencies [3]. However, the literature warns that brief trainings may not build lasting competence and that accuracy, underuse of advanced features, privacy, and bias concerns require explicit protocols and balanced pedagogies [5]. Given that existing research often centers on pre-service teachers or student outputs, this study addresses the gap by assessing trainer use of Copilot and Grammarly in authentic journalism teaching tasks and producing (1) a baseline competency profile, (2) a DigCompEdu-aligned training framework linked to media-literacy aims and RA 7079, and (3) practical guidelines with safeguards to inform professional development and policy [6], [7].

DigCompEdu, developed by the Joint Research Centre under Christine Redecker (2017), framed this study's analysis of teacher-trainers' digital competency in using Microsoft Copilot and Grammarly. The framework outlines six domains describing how educators plan, teach, assess, and professionally develop with digital technologies, and it is considered a feasible and defensible standard for research and program design relative to national alternatives [8]. According to pilots and national studies, DigCompEdu has been found to be a self-assessment tool and scaffold to professional development and is substantiated by large-sample validations and inclusion-focused results that complete its applicability to competence measurement in writing-intensive situations.

In its operation, the study aligned Copilot and Grammarly practices with individual domains: Professional Engagement meaning collaboration and reflective development implemented through modules learning [9]; Digital Resources meaning the capacity to find, assess, adapt, and share materials in the framework of considering inclusion, licensing, privacy, and accessibility, with the research having identified this area as a stable weak point [10]. Teaching and Learning was enacted through authentic newsroom simulations—where Copilot supported planning and drafting while trainees verified sources and revised with feedback over time—consistent with evidence that DigCompEdu-aligned programs improve practice but often reveal only moderate competence at scale [9]. Assessment combined rubric-based judgment with AI-supported feedback and analytics, reflecting documented gaps that require clearer guidance [11]; Empowering Learners embedded differentiation and accessibility aligned with inclusion-oriented validations [10]; and Facilitating Learners' Digital Competence translated media literacy, safety, and responsible tool use into teachable routines across levels described in cross-country profiles [12]. Overall, the six domains provided a coherent, measurable, and scalable structure for auditing and developing competence while connecting campus-journalism routines to a recognized standard [8], [9], [10], [11], [12].

Evidence on AI-Enabled Digital Competence in Campus Journalism Teacher Training

Campus journalism teacher-trainers operate at the intersection of digital pedagogy, writing instruction, and ethical newsroom judgment, making their digital competency

both tool-dependent and context-dependent. In the literature, competence does not exist as a single technical competence but as an integrated ability that is developed by the combination of structured training, real-world practice, and sensitivity to safety and policy, which are all aspects that adhere to the demands of journalism advising and newsroom-style teaching [13], [14], [15]. All the reviewed articles place Microsoft Copilot and Grammarly as presumably useful facilitators of this work, and also underline the fact that the positive benefits are most evident when they are integrated into the intentional instructional practices and are not presented as neutral productivity aids [1], [3].

The first convergency is that professional learning interventions are more likely to increase the digital competence of educators, whether on cognitive, procedural, and attitudinal levels, although the extent and sustainability of the increase will vary based on design. Organised programs are seen over and over again to have quantifiable improvements, such as digital pedagogy, technology integration, and flexibility [16], [17], [18], [19]. Simultaneously, the corpus warns that the statement about the effectiveness of training only works is not complete, and when it is applied to writing-intensive domains with high criteria of quality, feedback, and integrity, it needs to be problematized and maintained [14], [15].

The second theme is synthesis: capacity-building is multidimensional; it is based on the combination of pedagogy, content, and technology and also considers person-job fit and life-long learning dispositions. The research shows that standalone skill practice is ineffective, compared to designs that integrate the use of tools into teaching, and that special software training can be effective when incorporated within teacher education and linked to real tasks [14]. There is some complimentary evidence indicating that training impacts become stronger to the extent the role of teachers is consistent with training needs and to the extent that the development of the profession is not a one-time event [20], [21]. For campus journalism trainers, this implies that competence development should be anchored in newsroom outputs—beat planning, drafting, copyediting, and coaching—rather than in decontextualized AI tutorials.

A third pattern across the reviewed studies is the importance of organizational conditions—mentoring, motivation, leadership, and inter-institutional collaboration—in determining whether digital competence becomes routine practice. Train-the-trainer models and staff development events succeed more consistently when local support is present and when collaborative structures reduce isolation and accelerate the sharing of effective practices [22], [23], [24]. The literature further emphasizes that personalized and interactive designs help sustain engagement, while leadership structures influence whether digital transformation persists beyond initial implementation [25], [26]. The existing evidence supports the suggestion that the ability to use Copilot and Grammarly does not inherently depend on the personal level but is much affected by the institutional convection where training staff works. Thus, implicitly it implies that the individual competence is mediated by the pedagogical culture and resources of each school or division.

Synthesis number four predicts journalism-specific planned preparedness and resultant learning outcomes. The empirical studies of campus journalism settings show that it is significantly correlated with grammatical competence, writing self-efficacy, and the necessity of digitized teaching activities. These results place artificial intelligence tools as the possibly high leverage support, provided that the described condition of structured coaching and informed policy structures does coexist. Interestingly, the works, e.g., Basilan and Padilla and Chavez et al, form the thesis that campus journalism participation leads to significantly quantifiable increase in writing skills, whereas advisor-based publications create the medium of moderate baseline competence and demands digitization to strengthen the instruction design [3], [13]. Similar research such as Cubillas and Cubillas threatens further by suggesting that an increased awareness level can be considered a predictor of compliance, further suggesting that building competence should entail holistic

information efforts and role description with the application of technological solutions. Under this framework, Copilot can be thought of as a service to facilitate the upstream workflow in newsrooms ideation, planning, structural scaffolding, and feedback writing whereas Grammarly is used to aid the downstream cleaning at the sentence level but keeps journalists grounded to the requirements of a standard accurate, attributable, and responsible journalism [1], [3].

The fifth integrative theme marks the regularity of extolling the advantages of tools, and also establishes the diversities of sectors and risk-taking that narrow down the conceptualization of the making beneficial use of tools in journalism. In general, in a range of disciplinary settings, Copilot implementation is linked to increased drafting rate and responsiveness. Modular systems and templates seem to ease the cognitive burden and make work processes easier to handle [1], [27], [28]. However, the uneven policy awareness and ongoing ethical issues can also be empirically observed, which indicates that the adoption may only increase as the doubts about integrity rules persist [29], [30]. Until journalism complicates such concerns, as incorrect information or falsity is penalized by the community; yet without further fortified verification and attribution standards, gains in productivity or information usage to aid decision-making in other industries are not easily translated [31], [32].

A sixth synthesis deals with professional involvement and resource building as the process of maintaining competence. Durable professional growth is always associated with collaboration, reflective practice and artifact-rich workflows which are always supported by community of practice and common documentation systems. This is supported by empirical findings which point to peer forums, collaborative questioning, and reflexivity of experience as having a stronger role in the discourse around practice, whilst ePortfolios and platform-based community continue to hold the artifact around which feedback loop can be tracked over time [33], [34], [35]. The tools of artificial intelligence can also serve engagement by accelerating the feedback and simplifying collaborative drafting, but, at the same time, the literature also stresses that policy literacy and articulate disclosure and authorship requirements have to be addressed in the actual process of engagement [36], [37]. In line with this, consequential entertaining of resources is often captured in the digital resources concept within this field, encompassing reusable prompt libraries, style profiles, and practices of legitimately published resources- things which demand prompt literacy and the expertise of licensing- having otherwise cannot be lawfully accessed [38], [39].

Lastly, in pedagogy, teaching-learning, evaluation, learner empowerment, and digital competence of learners, the general opinion points at the relevance of organizing the implementation of AI as a human-in-the-loop pedagogy. The given technique requires clear scaffolding, evaluable evaluation procedures and strong media-literacy practices that would make AI tools their positive allies and not their own agents. Scaffolding research supports staged instruction and simulation-based learning for ill-structured newsroom tasks, while warning that modality, infrastructure, and well-being constraints shape how such designs can be implemented [40], [41], [42]. Assessment literature converges on the value of rubrics for fairness and reliability and points to AI-enabled analytics as useful only when paired with transparency and evidence trails [43], [44], [45]. Recent research in the area of empowerment and access shows that artificial intelligence has a potential to improve writing performance, increase participation; however, it also presents risks of loss in the voice, anxiety, and perceived inequalities without metacognitive scaffolds and explicit procedures to follow [46], [47], [48], [49]. To this end, verification, safety, legal literacy, and disclosure have long been and continue to be red flagged as persistent shortcomings in the media literacy and digital citizen research domain, challenges that are further compounded when the application of these tools is seen as prominently convincing but still significantly untrustworthy prose and when the dissemination of journalistic content is addressed to a general audience [50]; Tomczyk. Collectively, these strands justify

a competence model for campus journalism teacher-trainers in which Copilot and Grammarly are integrated through structured training, supportive organizations, and explicit ethical-verification protocols that are measurable through artifacts and performance-aligned indicators.

Statement of the Problem

This study aimed to determine the level and patterns of digital competence among teacher-trainers in using Microsoft Copilot and Grammarly for campus journalism courses and to propose a DigCompEdu-aligned training framework based on the findings. Specifically, it was guided by the following specific research questions:

What is the demographic profile of the teacher-trainers in terms of:

1. Age;
2. Sex;
3. Educational attainment;
4. Area of specialization; and
5. Years of experience as a campus-journalism teacher-trainer?

What is the level of digital competence of the respondents in using Microsoft Copilot in terms of:

1. Professional Engagement;
2. Digital Resources;
3. Teaching and Learning;
4. Assessment;
5. Empowering Learners; and
6. Facilitating Learners' Digital Competence?

What is the level of digital competence of the respondents in using Grammarly in terms of:

1. Professional Engagement;
2. Digital Resources;
3. Teaching and Learning;
4. Assessment;
5. Empowering Learners; and
6. Facilitating Learners' Digital Competence?

Is there significant difference in Microsoft Copilot competence when teacher-trainers are grouped by demographic profile?

Is there significant difference in Grammarly competence when teacher-trainers are grouped by demographic profile?

Is there a significant relationship between Copilot and Grammarly competencies?

What training framework can be developed from the findings?

2. Materials and Methods

Research Design

This study employed a quantitative, correlational-descriptive research design in which teacher-trainers' competencies in using Microsoft Copilot and Grammarly were measured numerically through structured instruments and analyzed using statistical procedures to produce objective, replicable descriptions of competence levels and subgroup differences [51], [52]. Specifically, the study generated descriptive statistics for DigCompEdu domain scores for both tools, used group-comparison tests to examine differences by age, sex, educational attainment, specialization, and years of experience, and conducted correlation analysis to estimate the relationship between Copilot and Grammarly competencies without manipulating any variables, thereby producing evidence to inform a practical DigCompEdu-aligned training framework.

Respondents and Sampling Technique

Participants were taken from an accessible population of 100 campus-journalism teacher-trainers in District II of the Schools Division of Taguig City and Pateros (TAPAT), defined as public secondary teachers listed in the SDO–TAPAT District II advisory roster for SY 2025–2026 who were appointed as school paper advisers or co-advisers, consistent with the value of a clearly bounded sampling frame for credible population-level description [53]. The study used criterion-based purposive sampling to ensure informational fit by selecting only those actively engaged in campus journalism and using both Microsoft Copilot and Grammarly, following guidance on purposive selection in quantitative studies [54]. Eligibility was confirmed through document and workload/use verification (e.g., license and advisory assignment, active journalism teaching or coaching, and regular use of both tools), with inclusion and exclusion criteria applied to align respondents with the DigCompEdu-domain measures and protect the validity of subgroup comparisons and correlation estimates through clear screening and data-quality checks.

Instrumentation

The study utilized a structured survey questionnaire suited to a quantitative, correlational-descriptive design because it standardized responses for coding, enabled computation of domain and overall competency scores, supported subgroup comparisons, and allowed statistical estimation of associations between Microsoft Copilot and Grammarly competencies. The instrument followed a fixed structure aligned with the research questions, ensuring that each section produced data needed for describing competence patterns and examining relationships among variables.

Part 1 collected demographic information comprising of age, sex, highest academic achievement, area of specialization, and years of experience as a campus-journalism teacher-trainer that served as covariates in group analyses and countered variance in competence scores. Items were mapped onto six DigCompEdu domains except that part 2 and part 3 were testing digital competence in relation to Microsoft Copilot and Grammarly respectively. In both sections of the instrument, respondents rated every indicator on a 4-point proficiency rubric (4=Highly Proficient, 3=proficient, 2=developing, 1=not proficient) out of which domain-level and overall scores were derived as the mean item value; interpretation limits were set at 3.50-4.00 (High Proficiency), 2.50-3.49 (Proficiency) 1.50-2.49 (Developing) 1.00-1.49 (Not Proficiency).

The quality of the instruments was proved based on the strict content validation and reliability test. Triadic review of a panel of three subject-matter experts who participated because of their assessment and writing research, journalism education, and digital pedagogy and AI in education confirmed content validity; each participant rated the relevance, clarity, and applicability of items in relation to the six DigCompEdu domains. This impacted the necessary modifications or deletions based on the resulting indices of item level content validity, and formatting and time to complete were also evaluated by the panel. Reliability was tested via pilot administration to teacher-trainers outside the main sample, with internal consistency evaluated using Cronbach's alpha per domain for both Copilot and Grammarly scales (target $\geq .70$ acceptable; $\geq .80$ preferred), alongside item-to-total correlation checks; weak items were rewritten or dropped before finalizing the instrument for main data collection.

Data Gathering Procedure

Data gathering followed a staged process: the researcher first secured formal permission from the Schools Division Office and relevant school heads through documented letters detailing the study's purpose, scope, timeline, instrument, and time burden, then obtained informed consent from all prospective respondents with clear explanations of voluntariness, withdrawal rights, confidentiality safeguards, and reporting procedures before allowing participation. The structured questionnaire was

completed by considering the advice of the expert panel, making sure that it fits into the overall research question and that all Likert scales were consistent, as well as taking the plain-language design to ease entry through the creation of an online and printable version of the questionnaire; it was then published online and made available in print to ensure as few access barriers as possible. The expected time to complete it was validated by a pilot test using a similar group of individuals outside the defined cohort, ambiguous items were clarified, and initial evidence concerning reliability was obtained, which informed the final revisions, and finally, the instrument was administered through a secure Web connection in schools with dependable internet access and using closed packets of paper in low-bandwidth settings within a limited data-gathering timeframe. After collecting the data, the paper form data was then dual-encoded, then subsequently subjected to duplicate and missing values checks, rule-based data cleaning, which included any reverse scoring, and then statements of the digcompEdu domain composites of Copilot and Grammarly; and the results were tabulated and correspondingly figures summarizing the demographics, descriptive statistics, group-difference tests, and correlation were then written in a form of a narrative that answered the research questions and informed a DigCompEdu-aligned training framework with practicable modules, with the validated instrument to be included.

Statistical Data Analysis

The study applied descriptive and inferential statistics to address the statement of the problem: frequencies and percentages summarized the respondents' demographic profile (SOP 1) including age, sex, educational attainment, area of specialization, and years of experience, while means and weighted means described teacher-trainers' competency levels in Microsoft Copilot and Grammarly across the six DigCompEdu domains—Professional Engagement, Digital Resources, Teaching and Learning, Assessment, Empowering Learners, and Facilitating Learners' Digital Competence (SOP 2 and SOP 3). To test group differences, analysis of variance (ANOVA) was used to determine whether Copilot and Grammarly competence scores significantly differed when respondents were grouped by demographic variables (SOP 4 and SOP 5), applying the decision rule to reject the null hypothesis when the F-test p-value was $\leq .05$. Finally, Pearson product-moment correlation examined the relationship between Copilot and Grammarly domain scores, rejecting the null hypothesis that $\rho = 0$ when $p \leq .05$ and failing to reject otherwise.

3. Results and Discussion

Table 1. Profile of Respondents

Profile	Description	Frequency	Percent
Age	20–29	15	25.0
	30–39	27	45.0
	40–49	15	25.0
	50 and above	3	5.0
	Total	60	100.0
Sex	Female	48	80.0
	Male	12	20.0
	Total	60	100.0
Educational Attainment	Bachelor's Degree	18	30.0
	Master's Units	23	38.3
	Master's Degree	14	23.3
	Doctoral Units	5	8.3
	Total	60	100.0

Area of Specialization	English	15	25.0
	Others	45	75.0
	Total	60	100.0
Years as Campus-Journalism Trainer	1–3 years	23	38.3
	4–9 years	19	31.7
	10 and above	18	30.0
	Total	60	100.0

Table 2. Level of digital competence in using Microsoft Copilot in terms of Professional Engagement

Indicators	Weighted Mean*	Verbal Description*
1. Actively explore it to enhance my teaching capacity and outputs in relation to my work.	2.98	Proficient
2. Use it whenever I prepare my lesson plan, reports, and other written works to ensure efficiency.	3.03	Proficient
3. Use it as common tool to engage with co-teachers in order to enhance my communication skills.	2.98	Proficient
4. Maximize its features to ensure that I will save time and come up with meaningful instruction.	2.98	Proficient
5. View it as an essential partner in my work professionally.	3.02	Proficient
Over-all Weighted Mean	3.00	Proficient

Table 3. Level of digital competence in using Microsoft Copilot in terms of Digital Resources

Indicators	Weighted Mean*	Verbal Description*
1. Use it to create prompt cards tailored to news, feature, and editorial writing, and to improve the layout and presentation of the articles.	2.90	Proficient
2. Use it to draft, edit, and publish articles, editorials, and other feature stories properly.	2.85	Proficient
3. Use and apply its function to proofread and edit the headlines, leads, articles, or other captions needed in making a good article/stories/new.	2.87	Proficient
4. Integrate it to make headlines, leads, articles or other captions to capture the attention of the readers.	2.87	Proficient
5. Use it to summarize some long reports and paraphrase them to a more concise article.	2.83	Proficient
Over-all Weighted Mean	2.86	Proficient

Table 4. Level of digital competence in using Microsoft Copilot in terms of Teaching and Learning

Indicators	Weighted Mean*	Verbal Description*
1. Design lesson outlines and timed newsroom drills.	2.87	Proficient
2. Generate alternative leads, angles, and interview questions as part of my strategies.	2.93	Proficient
3. Use it for writing exercises in the course such as headline, writing news leads, and editorial.	2.87	Proficient
4. Use it to apply timely and updated writing styles.	2.83	Proficient
5. Employ it to provide varied examples and activities for classroom discussion.	2.82	Proficient
Over-all Weighted Mean	2.86	Proficient

Table 5. Level of digital competence in using Microsoft Copilot in terms of Assessment

Indicators	Weighted Mean*	Verbal Description*
1. Use it to create rubrics and scoring guides to evaluate students' output in analytic and holistic way.	2.92	Proficient
2. Generate practice and test items which are aligned to the journalism competencies.	2.85	Proficient
3. Use it to provide immediate feedback.	2.92	Proficient
4. Use it and remain authentic, legal, and reflective journalism.	2.83	Proficient
5. Use it to help me track students' progress by using the suggested improvements in the Copilot to provide better assessment.	2.77	Proficient
Over-all Weighted Mean	2.86	Proficient

Table 6. Level of digital competence in using Microsoft Copilot in terms of Empowering Learners

Indicators	Weighted Mean*	Verbal Description*
1. Guide students to use it to help them in improving their writing skills in journalism without replacing their capabilities.	2.97	Proficient
2. Encourage students to explore different perspectives using the application in gathering ideas to improve or refine their works.	2.88	Proficient
3. Coach students to accept, adapt, or reject Copilot suggestions and to explain their choices.	2.93	Proficient
4. Use Copilot to produce simplified outlines or extended scaffolds for learners who need them.	2.88	Proficient

Indicators	Weighted Mean*	Verbal Description*
5. Hold quick conferences where students reflect on how Copilot influenced their drafts.	2.72	Proficient
Over-all Weighted Mean	2.88	Proficient

Table 7. Level of digital competence in using Microsoft Copilot in terms of Facilitating Learners' Digital Competence

Indicators	Weighted Mean*	Verbal Description*
1. Teach students to use it as digital assistant in performing the articles in journalism.	2.78	Proficient
2. Model safe data entry and privacy settings whenever I demonstrate Copilot.	2.83	Proficient
3. Help students in evaluating articles or stories through the use of Copilot.	2.77	Proficient
4. Train students to spot and correct factual errors through Copilot by checking against reliable sources.	2.82	Proficient
5. Guide students to craft ethical prompts that avoid bias and protect identities using Copilot.	2.90	Proficient
Over-all Weighted Mean	2.82	Proficient

Legend: 3.50–4.00 Highly Proficient; 2.50–3.49 Proficient; 1.50–2.49 Developing; and 1.00–1.49 Not Proficient

Teacher-trainers reported consistently Proficient engagement with Microsoft Copilot, with an overall mean of 3.00, indicating steady integration of Copilot into routine professional tasks. Most powerful practices were revolved around preparation and drafting tasks, including applying Copilot to lesson plan, reports and written productions and through the thinking of it as a professional partner, whereas other indicators were slightly lower, and it may be that collegial coordination, collaborative interaction and orchestration of features are progressing but not yet sufficiently developed. Comprehensively, the trend suggests that Copilot has already found its way into planning and writing applications, but practice should be driven with specific upskilling that deals with timely plans, workflow plans, and mutual-editorial procedures to go beyond minimum competence.

Such findings are validated by the literature that states that trainers must be explicitly trained on competencies development to move between competent use to the systematized practice of high levels. According to Ellman and Lucantoni, the shift of teacher to trainer demands active training competency enhancement that may incorporate organized courses on tools like Copilot and Grammarly to advance collaborative and workflow as a norm [55]. In addition to this, Remi and Nagau suggest Copilotrace to track writing performance and learning patterns; although the authors focus on graphomotor evidence, the logic behind tracking the progress over time can be applied to journalism-focused routines of Copilot-assisted drafting and revision recording, reviewing and improving over time [56]. Across the remaining competency domains, results similarly indicate consistent Proficient performance—Digital Resources (overall mean 2.86), Teaching and Learning (2.86), Assessment (2.86), Empowering Learners (2.88), and Facilitating Learners' Digital Competence (2.82)—with clear strengths and improvement priorities. Trainers scored relatively higher on task-specific prompt cards and idea generation, [6], [57] as well as rubric creation and rapid feedback, reflecting efficiency gains [58], but scored lower on deeper synthesis work, longitudinal progress tracking, and

structured student reflection conferences, suggesting that verification, evidence-mapping, and reflective routines remain emerging practices [2], [29], [32], [59]. Taken together, the evidence indicates a competence profile in which ethical prompting and principled guidance are present, yet the next development step is to routinize traceable evaluation workflows and reflective, disclosure-oriented coaching that strengthens students' critical use of Copilot in authentic newsroom tasks [56], [57].

Table 8. Level of digital competence in using Grammarly in terms of Professional Engagement

Indicators	Weighted Mean*	Verbal Description*
1. Apply it to improve my accuracy in writing articles and other reports.	2.92	Proficient
2. Use it to improve accuracy without sacrificing some ethical considerations.	2.97	Proficient
3. Write brief reflections on recurring error patterns from Grammarly and discuss them in team meetings.	2.98	Proficient
4. Prepare clean memos for stakeholders after Grammarly has provided critical suggestions.	3.02	Proficient
5. Engage with it that enhances clarity and journalistic reliability in writing articles.	3.07	Proficient
Over-all Weighted Mean	2.99	Proficient

Table 9. Level of digital competence in using Grammarly in terms of Digital Resources

Indicators	Weighted Mean*	Verbal Description*
1. Use it as the main source to improve and refine my writing skills.	3.05	Proficient
2. Curate exemplar sentences flagged by Grammarly to build a micro-corpus for lessons.	2.98	Proficient
3. Manage a repository of Grammarly reports to benchmark class progress over time.	3.02	Proficient
4. Check permissions and privacy considerations when submitting texts to Grammarly to ensure clarity and refinement.	3.03	Proficient
5. Integrate Grammarly with our LMS or document system to streamline submissions.	2.95	Proficient
Over-all Weighted Mean	3.01	Proficient

Table 10. Level of digital competence in using Grammarly in terms of Teaching and Learning

Indicators	Weighted Mean*	Verbal Description*
1. Include it in activities that help students write better articles.	3.02	Proficient
2. Design side-by-side drills comparing original sentences and Grammarly-revised versions.	3.07	Proficient

Indicators	Weighted Mean*	Verbal Description*
3. Guide students in using tone and formality settings to match target audiences.	3.07	Proficient
4. Conduct peer-edit rounds that use Grammarly reports as discussion starters.	2.95	Proficient
5. Track individual error patterns from Grammarly and plan targeted mini-lessons.	2.92	Proficient
Over-all Weighted Mean	3.00	Proficient

Table 11. Level of digital competence in using Grammarly in terms of Assessment

Indicators	Weighted Mean*	Verbal Description*
1. Align Grammarly readability and error counts with rubric criteria for mechanics and style.	3.00	Proficient
2. Attach Grammarly summaries to feedback so students see evidence for comments.	2.95	Proficient
3. Use Grammarly plagiarism checks as a screen and then follow up with manual review.	3.08	Proficient
4. Compile before-and-after snapshots from Grammarly edits as part of student portfolios.	2.97	Proficient
5. Record and explain decisions when I override Grammarly to teach editorial judgment.	2.93	Proficient
Over-all Weighted Mean	2.99	Proficient

Table 12. Level of digital competence in using Grammarly in terms of Empowering Learners

Indicators	Weighted Mean*	Verbal Description*
1. Set personalized Grammarly goals that match each learner's current needs.	2.85	Proficient
2. Let students choose which error categories to prioritize per draft and justify their choice.	3.02	Proficient
3. Provide simplified explanations and printable checklists that mirror Grammarly flags.	2.90	Proficient
4. Coach students to maintain their voice after reviewing Grammarly suggestions.	2.98	Proficient
5. Invite students to request brief conferences when Grammarly feedback feels unclear.	2.88	Proficient
Over-all Weighted Mean	2.93	Proficient

Table 13. Level of digital competence in using Grammarly in terms of Facilitating Learners' Digital Competence

Indicators	Weighted Mean*	Verbal Description*
1. Teach citation and attribution rules when Grammarly flags quotations or paraphrases.	2.90	Proficient
2. Train students to include clear AI-disclosure statements for pieces edited with Grammarly.	2.97	Proficient
3. Show students how to protect data when using Grammarly on shared devices.	2.95	Proficient
4. Guide students to avoid changing verified names, quotes, or figures when applying Grammarly edits.	2.93	Proficient
5. Help students evaluate bias and tone when Grammarly suggests wording that may misrepresent stakeholders.	2.97	Proficient
Over-all Weighted Mean	2.94	Proficient

Legend: 3.50–4.00 Highly Proficient; 2.50–3.49 Proficient; 1.50–2.49 Developing; and 1.00–1.49 Not Proficient

Teacher-trainers demonstrated consistently **Proficient** use of Grammarly across domains, with overall means clustering near **3.00**, indicating habitual and skillful integration into campus journalism instruction and professional writing. The most eminent practices provided emphasis to the need of clarity, journalistic reliability, and the diligent composition of memos. Also, the reflection-focused behaviors as the dialogue about common patterns of errors and the judicious application of ethical guardrails were also evaluated as competent. This fact indicates Grammarly is not used only to pass over the text but to provide the material contribution to the accuracy and responsible writing. The point spread is very narrow, which regimes constant routines, however, a movement towards Highly Proficient usage would probably require clearer documentation of ethics and systematic and evidence-based reflection practices.

These results agree with the existing body of literature stating that AI-enhancing tools may strengthen instructional production and test results when they are integrated into real-life operations. Ramos et al. find that AI help can increase the quality of content and portfolio development, which also aligns with the focus on the cohort, which is on clarity, smooth output, and capturing evidence, such as portfolios and before-after comparisons [1]. Siiman hypothesizes that short-term but intensive exposure has a tendency to intensify core writing-protecting processes; in line with this, a series of brief micro-trainings on Grammarly could proceduralize previously well-developed reflective behaviours of the cohort into organisational procedures, like the template of a memo that habitually records patterns of recurrent error and the coaching interventions to those errors.

Regarding teaching and learning, measurement, the empowerment of students and the instigation of digital ability, the outcomes imply a trend of intensive illustration and supervised practice (for example, side-by-side sentence exercises, tone advice to the audience, plagiarism monitoring with manual follow-up, and outright disclosure and prejudice/tone-conscious review). Those are accompanied by relatively weak-spirited longitudinal diagnostics and goal cycles of individual focus, including the monitoring of the patterns of error over time and the systematic review of the goals. This profile is supportive of the literature suggestions that couple efficiency should be paired with verification and some transparent human judgment, especially in public-information settings where meaning changes and reliability should be constantly checked [2], [32], [58]. Moreover, some of the studies support explicit responsibility practices and codified professional practices checklists of disclosure, citation, privacy, and the non-alteration of

verified facts and traceable editing practices that can reveal ethical and verification decision-making to learners [30], [55], [56]

Table 14. Summary of significance tests for Microsoft Copilot competence by profile

Profile	Test	t/F Value	Sig. (p)	Verbal Interpretation	“Decision”
Sex	t-test	—	0.078	Not significant	H ₀ Accepted
Age	ANOVA	—	0.698	Not significant	H ₀ Accepted
Educational Attainment	ANOVA	—	0.764	Not significant	H ₀ Accepted
Area of Specialization	ANOVA	—	0.778	Not significant	H ₀ Accepted
Years of Experience	ANOVA	—	0.414	Not significant	H ₀ Accepted

Notes: Decisions based on $p < .05$. For Sex, Levene’s test indicated unequal variances for Professional Engagement; Welch’s t was used there.

Teacher-trainers’ Microsoft Copilot competence did not significantly differ when grouped by sex, age, educational attainment, area of specialization, or years of experience (all p-values $> .05$ at $\alpha = .05$), indicating broadly comparable competence across demographic categories and supporting acceptance of the null hypotheses for each profile. This suggests that program design can establish a common baseline for all trainers—prioritizing shared routines such as prompt discipline, verification, and workflow consistency—while reserving differentiation for specific domain or indicator gaps rather than demographic grouping. The pattern aligns with evidence that effective AI use depends more on workflow mastery, analytical habits, and tool fluency than on static traits such as age or credentials [29], and with studies highlighting system-level needs that cut across profiles, particularly in assessment and digital-resource management [11], [60].

Table 15. Summary of significance tests for Grammarly competence by profile

Profile	Test	t/F Value	Sig. (p)	Verbal Interpretation	“Decision”
Sex	t-test (Welch)	—	0.024	Significant	H ₀ Rejected
Age	ANOVA	—	0.842	Not significant	H ₀ Accepted
Educational Attainment	ANOVA	—	0.734	Not significant	H ₀ Accepted
Area of Specialization	ANOVA	—	0.777	Not significant	H ₀ Accepted
Years of Experience	ANOVA	—	0.633	Not significant	H ₀ Accepted

Notes: Decisions based on $p < .05$. For Sex, Levene’s test indicated unequal variances for Professional Engagement; Welch’s t was used there.

Grammarly competence showed a significant difference by sex (Welch’s t, $p = 0.024$, with the negative t indicating Female $<$ Male), while no significant differences were found by age, educational attainment, area of specialization, or years of experience (all p-values $> .05$ at $\alpha = .05$), leading to rejection of the null hypothesis for sex but acceptance for the other demographic profiles. This pattern suggests a targeted equity concern affecting certain Grammarly capabilities—potentially advanced features such as tone control or evidence capture—so training can retain a unified core for all participants while adding short, coached clinics and criterion-based mini-tasks to close the observed gap, with progress monitored through documented artifacts and audit-friendly outputs. Such a design is consistent with evidence that hands-on, task-centered workshop cycles improve educators’ practical use of AI writing assistants and can translate effectively to Grammarly when anchored in authentic texts, explicit criteria, and guardrails [2], [58], [59].

Table 16. Significant relationship between Copilot and Grammarly competencies

Level (Copilot)	Level (Grammarly)	r value	p value	Interpretation	“Decision”
Professional Engagement	Professional Engagement	0.766	< .001	High positive correlation	H₀ Rejected; Significant

Guide: 0.10–0.30 = Low; 0.40–0.60 = Moderate; 0.70–0.90 = High.

A high positive correlation was found between Copilot and Grammarly scores under Professional Engagement ($r = 0.766$, $p < .001$), indicating a significant relationship between respondents’ professional-engagement use of Copilot and their professional-engagement use of Grammarly and supporting rejection of the null hypothesis that $\rho=0$ at $\alpha = .05$. This implies that professional routines—such as planning, collaboration, and communication—tend to transfer across tools: as teacher-trainers strengthen engagement practices with Copilot, their parallel engagement practices with Grammarly also increase. The finding supports designing training as a single sequenced workflow (e.g., plan with Copilot, refine and document with Grammarly) supported by shared artifacts and reflective “accept/reject” decision logs, which can improve the speed, clarity, and consistency of mentoring in campus journalism. This consolidation mechanism is consistent with evidence that embedding generative AI in feedback loops strengthens support cycles [27], that Copilot improves planning and assessment touchpoints where Grammarly diagnostics can add value [1], and that DigCompEdu-aligned professional development and workshop-based coaching enhance competence through authentic, recurring practice [9], [59].

Magtangob Training Framework on Copilot–Grammarly Competency for Campus Journalism



Figure 1. Magtangob Training Model on Copilot–Grammarly Competency for Campus Journalism

The suggested training map plans four modules into a quadrant map that captures different initiatives of integration and projected expansions. The first quadrant is Digital Resources: Genre Packs which is low integration and low growth. The second quadrant is Tandem Sprints: Copilot + Grammarly that have low integration but high growth. The third quadrant is Micro-Conferences and Peer Coaching with high integration and low growth whereas the fourth quadrant is Assessment Trails: Rubrics and Ledgers with high integration and high growth. Relative positioning of each module converts critical results to active priorities: genre packs fill in the gaps in summarization routines; tandem sprint, capitalizes on the strong Copilot-Grammarly liaison to acquire skills faster; micro-conferences and peer coaching, focus on reflective practice and alleviate sex-linked inequities by training on guided practice; and assessment, institutionalizes progress monitoring by means of auditable certification. The transition between these quadrants represents a developmental course, pioneered by the sharing of resources, continued by the accelerated acquisition of learning through paired-tool processes, anchored by

reflection within the form of mentoring processes, and terminated in stable and documentation-intensive evaluation systems.

Competence on a cross-module basis is a visible system of habit. The instructors are educated to establish connections between drafting and editing as a part of the same working process, to associate feedback with definite requirements, and to record evidence snippets that will make decision making transparent. The structure shall be able to upgrade the cohort to higher-order functions on account of more consistent practice with time to clean copy compressed, the reinforced reflective judgment and peer-supported routines and common artifacts in order to equalize disparities on higher-order tool functions. In this respect the modules act like not so much a separate lesson, but a recurring VIPs of newsroom habit, which can be monitored, mentored and perfected with reference to documented outputs.

The different implementation packages are defined by each of the quadrants. The Genre Packs offer condensed, cumulative, and frameworked instruction in the news, features and editorials i.e. in purpose, voice, expertise and house style and are based on summarizing profile/paraphrasing checklists and held models that nourish Copilot tips and shape Grammarly preferences. The tasks involved in the Tandem Sprints require a short and authentic text on which Copilot drafting and Grammarly refinement will take place, and the outcomes would be traced through two-column representations that they would use the rationales of guarded/neglected and simple rate [ex: flags per 200 words, time-to-clean-copy]. Micro-Conferences and Peer Coaching make microreflections formal incidences of brief reflection involving the use of conference cards and rotating mentor clinics, to build advanced moves including prompt conditioning and tone control with artifacts (screencasts, cheat sheets). Assessment Tuils standardize fairness and developmental judgments by securing rubric terminology, pasting Grammatically summaries of provisions and sustaining the ledgers and portfolios which draft report of apparatus proposals, teacher determinations and takeover action plans creating audit prepared materials and regular development checks.

4. Conclusion

1. The group of prospective users of the AI-assisted writing pedagogy (young-middle-career, mainly female, mostly those with graduate degrees and various specializations) seems ready to use it. The program that encourages them to harness the momentum of their early-career life must provide the scaffolding of the conventions of newsroom genre, especially when these persons are not the native English speakers.
2. Skills in Copilot were noted though shortcomings were found in summarization and progress tracking and structured reflection. These three areas should be targeted to instill in the learners the instruction that would raise them above the Proficient to Highly Proficient level.
3. Mastery of the Grammarly at hand was also noted and significant progress was achieved in clearness, tone, practicing exercises, and capturing evidence. However, the accuracy of diagnosis and goal-setting is inferior. Teachers' ought to alleviate simple, longitudinal evaluation milestones, and individualized goals must be adopted to encode feedback into progression development paths.
4. There were no strongly significant differences in Copilot competence based on the lines of sex, age, educational attainment, specialization, or experience. These results justify the use of a shared professional development unit across all subgroups.
5. Grammarly proficiency had sex-based disparities that inclined male subjects in the chosen measurements. Specialized clinics on advanced editing features would not hamper the basic training and could fill this gap.
6. The competencies related to Copilot and Grammarly had a high and positive correlation. The application of drafts and revision into one learning routine is

therefore likely to generate the synergy in learning and decrease the amount of time spent to bring to the polished prose.

7. The Magtangob Training Framework is an excellent fit in the determined strengths and gaps. By its application in short, evidence generating cycles, it is bound to produce cleaner articles, more fair assessment and a more uniform conquest among participants.

Recommendations

1. For teacher-trainers (campus journalism advisers/coaches): require a weekly drafting-and-refinement routine that pairs Copilot prompts with Grammarly edits on authentic newsroom tasks, records a two-column trace, and sets one learner goal per week to address the gaps in summarizing, progress tracking, and reflection.
2. For English and journalism teachers: embed prompt-design checklists, source-verification drills, and simple longitudinal diagnostics (goal sheets plus before/after samples) so that routine Grammarly edits convert into sustained growth at the learner level.
3. In case of campus editorial boards with support of PTA/SGC, it is crucial to use a clear style guide with human signage, extensive evidence log indicating all edits and decisions per issue, and to hold quarterly review meetings that sample pages and check accuracy, tone and any form of AI aided disclosure.
4. To school administrators, it is recommended to supply classroom tools and plentiful connectivity as well as allocate an hour weekly to coaching or clinics and to track three key markers, including flags/ 200 words, minutes taken to produce a clean copy, and growth by criterion measured by rubric, to guide the specific support.
5. In the case of Schools Division Office in Taguig City and Pateros, establish minimum artifacts of evidence (traces, ledgers, portfolios, etc.,) to use, establish sex-gap surveillance on chosen Grammarly skills, and provide brief clinics on advanced functionality to create fair access.
6. In the case of Local Government Units in Taguig and Pateros, focus on connectivity and newsroom-like laboratory improve grants that will be awarded based on verifiable results, such as a cutback on editing time, the flagging of errors, and co-sponsorship of ethics-conscious campus journalism training courses.
7. In the case of DepEd NCR, and DepEd Central (BCD/BLD), spread placebo messages about the implementation of AI-assisted writing instruction that aligns with the DigCompEdu domains, sets standards of continuous professional development on parity with evidence-generating classroom practices, and clarifies privacy and disclosure policies.
8. In the case of Teacher Education Institutions, make tool-specific competencies a part of methods courses and practicum demands by micro-credentialing requiring immediate design, edit tracing, and commentary on real student work using rubrics.9. For the research community: conduct a pre-registered, multi-site longitudinal study that tracks writing quality, ethics compliance, and equity across sex and specialization, and share de-identified datasets to strengthen replication and policy use.

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