

Transformation of Advertising Text Writing Lessons Through the Project-Based Learning Model: a Constructivist Approach in Vocational Schools

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ABSTRACT

Teaching advertising writing in vocational high schools continues to face a gap between students' linguistic knowledge and the expectations of professional practice. Although students often understand textual structures, they frequently struggle to produce persuasive advertising texts that are contextually appropriate and aligned with creative industry standards. This study aims to develop and examine the effectiveness of a Project-Based Learning (PjBL) model grounded in constructivist principles for advertising writing instruction in vocational education. A Research and Development approach using the ADDIE framework was employed and implemented through limited and extensive trials involving intact vocational classes functioning as experimental and comparison groups. Data were collected through writing performance tests, multimodal product assessment, classroom observations, student questionnaires, and qualitative feedback from industry practitioners acting as guest teachers. Quantitative analysis using paired and independent sample statistical tests indicates a significant improvement in students' advertising writing performance after the model revision, particularly in message clarity, copywriting effectiveness, and coherence between textual and visual elements. Qualitative findings further reveal increased student learning independence, reflected in greater initiative during planning, revision, and decision-making processes. Industry practitioners' feedback also contributed to aligning student work with professional communication standards. These findings suggest that the revised PjBL model is effective in supporting advertising writing as a multimodal vocational competence and illustrate how constructivist project-based instruction can bridge classroom learning with professional communication practices.

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Introduction

Recent developments in vocational education across different countries indicate a paradigm shift from content-oriented instruction toward learning approaches that emphasize authentic experience, problem solving, and closer alignment with professional practice. Within the context of technical and vocational education and training (TVET), Project-Based Learning (PjBL) has been widely adopted as a pedagogical approach that enables students to integrate knowledge, skills, and professional attitudes through meaningful projects. Recent meta-analytic and empirical studies confirm that PjBL has a positive impact on learning outcomes, particularly in fostering higher-order competencies such as collaboration, critical thinking, and learning autonomy, although its effectiveness is influenced by contextual factors such as project design and classroom conditions (Kokotsaki et al., 2016; Tan et al., 2025; Wurdinger, 2016; Zhang & Ma, 2023).

In vocational education, language learning plays a strategic role as it functions as a medium of professional communication across areas of expertise. One form of writing that is closely connected to workplace demands is advertising writing. This competence requires not only linguistic accuracy but also persuasive ability, creativity, and the effective integration of verbal and visual elements in relation to products and target audiences. In the creative industry and digital marketing sectors, advertising writing has become a key professional skill that influences communication effectiveness and graduate competitiveness (Han, 2020; Percy & Rosenbaum-Elliott, 2016). Recent studies on multimodal communication further emphasize that professional writing increasingly involves the orchestration of textual, visual, and design elements, making multimodal competence an essential component of vocational literacy (Kress, 2010; Midgette et al., 2025).

Despite its relevance, existing studies indicate that advertising writing instruction in vocational high schools often remains largely theoretical. Classroom activities tend to prioritize text analysis and structural identification rather than sustained engagement in authentic production processes. As a result, students may demonstrate conceptual understanding of advertising texts but experience difficulties when required to produce persuasive and professionally relevant advertising materials. These challenges are frequently associated with limited opportunities for idea exploration, revision, reflection, and the provision of authentic feedback during the learning process (Marbun & Prastawa, 2023; Nasution et al., 2021). Similar concerns have been reported in international contexts, where project-based approaches are sometimes reduced to task completion without sufficient scaffolding or reflective support, particularly in large or heterogeneous classes (Zhang & Ma, 2023).

From a theoretical perspective, meaningful writing instruction aligns with constructivist views that conceptualize knowledge as actively constructed through experience, social interaction, and

reflection. Within this framework, Project-Based Learning represents a pedagogical approach that positions students as active learners who construct understanding through collaborative project work. In this study, the PjBL model is developed using the ADDIE framework to ensure a systematic connection between instructional stages and the development of vocational competencies. Specifically, the analysis phase focuses on identifying learning needs and professional demands, the design and development phases emphasize the creation of advertising projects that require copywriting and multimodal writing skills, while the implementation and evaluation phases highlight learning autonomy, product quality, and reflective learning processes (Branch, 2009; Krauss & Boss, 2013; Molenda, 2015).

Although PjBL offers substantial potential for vocational learning, its implementation in classrooms with relatively large student numbers presents several challenges, including limited mentoring time, variations in student ability, and the need for coordination with industry practitioners. Recent studies highlight that collaboration with industry partners and the involvement of practitioners as guest teachers can enhance learning authenticity, employability skills, and students' awareness of professional standards, provided that such collaboration is pedagogically integrated rather than incidental (Naseer et al., 2025; Pepple et al., 2025). These conditions underscore the importance of a PjBL model that treats projects not merely as end products but as structured and reflective learning experiences supported by industry collaboration. Accordingly, this study aims to develop and examine the effectiveness of a Project-Based Learning model integrated with industry practices for teaching advertising writing in vocational high schools. The findings are expected to contribute theoretically to the development of project-based writing instruction and practically to supporting vocational teachers in designing language learning aligned with the characteristics of vocational education and professional demands. Extending existing research on project-based learning, this study foregrounds advertising writing as a professional and multimodal competence in vocational education while systematically linking instructional design stages with the development of vocational competencies.

Method

This study employed a Research and Development (R&D) approach aimed at developing and evaluating a Project-Based Learning (PjBL) model integrated with workplace practices for teaching advertising writing in vocational high schools. The model development was guided by the ADDIE framework, encompassing analysis, design, development, implementation, and evaluation. During

the analysis stage, the existing condition of advertising writing instruction, student characteristics, and professional communication demands were examined through classroom observations, reviews of instructional documents, and discussions with the subject teacher. The analysis revealed a gap between students' conceptual understanding of advertising texts and their ability to produce persuasive, contextualized advertising products aligned with professional standards.

The design stage focused on constructing a project-based learning flow that explicitly linked each ADDIE phase to the development of vocational competencies. The targeted competencies included copywriting skills, the integration of verbal and visual elements in advertising texts, and students' learning independence. In the development stage, instructional materials were prepared in the form of a PjBL-based module, project guidelines, student worksheets, and assessment instruments designed to evaluate both learning processes and products. The initial version of the model was then implemented in a limited trial to examine feasibility, clarity of project instructions, and student responses. Feedback obtained during this phase indicated the need for several revisions, including simplifying project task sequences, adding structured reflection prompts, and strengthening feedback mechanisms to better support students in revising and refining their work.

The implementation stage was conducted with eleventh-grade students in a vocational high school using purposive sampling. Classes with relatively similar academic characteristics and curriculum exposure were selected to ensure comparability within a natural classroom context. One class implemented the developed PjBL model, while another class continued with the instructional approach commonly used in the school and served as a comparison within the evaluation stage, without being framed as a formal experimental or quasi-experimental design. Throughout the learning process, students worked collaboratively to design and produce advertising posters that combined persuasive written messages with visual elements. To enhance the authenticity of learning, industry practitioners were involved as guest teachers who provided feedback on students' work, particularly with regard to message accuracy, visual appeal, and alignment with professional advertising standards.

Data were collected through multiple instruments, including writing performance tasks, assessment of advertising posters, learning independence questionnaires, classroom observations, and documentation of feedback from industry practitioners. The assessment of advertising posters was conducted using a performance-based rubric grounded in vocational competencies. The rubric evaluated linguistic aspects such as clarity and persuasiveness of the message, appropriateness of word choice, and suitability of language style for the product and target audience. Visual aspects

were assessed based on the relevance of images to the written message, consistency of layout and color use, and the role of visual elements in strengthening the overall communicative impact. In addition, the rubric emphasized multimodal coherence, referring to the extent to which textual and visual elements worked together to construct a unified and meaningful advertising message.

Assessment was not limited to the final product but also considered the learning process. Students' learning independence was examined through observable behavioral indicators during project work, including initiative in developing ideas, ability to manage time and tasks, willingness to revise work based on feedback, and responsibility in completing group assignments. These indicators were reinforced through a self-report learning independence questionnaire administered after the completion of the project. Quantitative data were analyzed using descriptive statistics and inferential tests (paired and independent sample tests) to examine changes in students' learning outcomes before and after the implementation of the model, while qualitative data from observations and practitioner feedback were analyzed thematically to provide deeper insights into how the PjBL model functioned in classroom practice.

The study was conducted within the constraints of regular classroom settings, characterized by limited instructional time and relatively large class sizes. These conditions posed challenges for project-based implementation, particularly in providing individualized guidance and feedback. Nevertheless, the use of structured assessment rubrics and the involvement of industry practitioners as feedback providers helped optimize the implementation of the model and maintain the relevance of learning activities to workplace expectations.

Result and Discussion

Implementation and Revision of the PjBL Model

The initial implementation of the Project-Based Learning (PjBL) model was carried out through a limited trial phase as a form of formative evaluation. This phase aimed to examine instructional feasibility, patterns of student engagement, and the adequacy of supporting learning instruments before the model was applied on a wider scale. During this stage, classroom instruction began to move away from a content-delivery orientation toward learning activities that required active student participation through group discussions, exploration of product ideas, and planning of advertising projects. This shift reflects a central principle of PjBL, namely the use of authentic projects as a means for constructing knowledge. However, the findings from the initial implementation also indicated that student engagement was not yet evenly distributed, particularly

during the early phases of idea exploration and persuasive language development. These conditions point to the need for stronger pedagogical facilitation during critical stages of project work.

Observations of teacher and student activities during the limited trial revealed several recurring challenges. Students experienced difficulties in defining a clear product focus, aligning product characteristics with target audiences, and formulating persuasive and contextually appropriate advertising messages. The findings suggest that the effectiveness of PjBL is not determined solely by the presence of a project task. Rather, it depends heavily on the clarity of task sequencing, the quality of instructional scaffolding, and the continuity of feedback throughout the learning process. International literature similarly emphasizes that PjBL may lose its pedagogical impact when projects are implemented without sufficient guidance and structured reflection (Kokotsaki et al., 2016; Tan et al., 2025).

Following the consolidation of findings from the limited trial, the PjBL model underwent a series of substantive refinements aimed at strengthening its pedagogical foundations. These findings were drawn from multiple sources, including validator input, classroom observations, student responses, and analysis of student products. The refinements focused on improving the project workflow, reinforcing the teacher's facilitative role during idea exploration and persuasive language drafting, and clarifying the form and timing of industry practitioner involvement in the learning process. In addition, assessment instruments were improved to ensure greater clarity, concreteness, and alignment with targeted vocational competencies. This iterative refinement process reflects the view that project-based instructional models should be continuously improved based on empirical classroom evidence rather than treated as fixed designs.

One of the most prominent refinements involved the improvement of assessment rubrics for copywriting and advertising posters. The refined rubrics were designed not only as evaluative tools but also as learning guides that explicitly communicate quality standards to students. Assessment indicators emphasized the relevance of messages to products and target audiences, the appropriateness of persuasive structures and diction, creative originality, and coherence between verbal and visual elements. Such assessment practices are consistent with recent research on multimodal assessment, which highlights the importance of evaluating both students' decision-making processes and the coherence of meaning across modes in multimodal texts (Chan, 2025; Midgette et al., 2025).

The refined model also strengthened the pedagogical integration of professional practice through the structured involvement of industry practitioners as feedback providers. Practitioners

were positioned as part of the evaluative process to validate the quality of student products based on workplace communication standards. This involvement contributed to increasing students' awareness of professional expectations and the relevance of advertising writing skills in vocational contexts. These findings align with research on work-integrated learning, which emphasizes that collaboration between educational institutions and the workplace is most effective when it is pedagogically designed and embedded within instructional processes rather than treated as an incidental component (Arinaitwe, 2021). In addition, several studies indicate that project-based learning connected to workplace practices can enhance learning meaningfulness and students' work readiness when supported by clear instructional design and evaluation mechanisms (Putra et al., 2025; Rahmawati et al., 2021). These findings support the view that systematically designed and iteratively refined project-based learning can bridge the gap between school-based language instruction and the communication demands of professional practice (Zhang & Ma, 2023).

The implementation and refinement of the PjBL model highlight the importance of adaptive and data-informed instructional development in vocational education. The limited trial functioned as a reflective space for identifying weaknesses in the initial design and for strengthening alignment between learning objectives, project processes, and targeted vocational competencies. This pattern of iterative development is consistent with national and international research showing that the effectiveness of PjBL lies not in the project itself, but in the quality of instructional design, implementation support, and the relevance of learning activities to professional contexts (Kokotsaki et al., 2016; Rahmawati et al., 2021; Tan et al., 2025).

Students' Advertising Writing Performance

Students' advertising writing performance was examined as a primary outcome of the revised Project-Based Learning (PjBL) model, with particular attention to the clarity of persuasive messages, the organization of copywriting structures, and the alignment of texts with product characteristics and target audiences. Following the implementation of the revised model, students demonstrated more consistent improvements in producing advertising texts that were purposeful, audience-oriented, and contextually appropriate. Compared to the initial implementation phase, student writing showed clearer communicative intentions, more focused value propositions, and more effective use of persuasive language features commonly found in professional advertising discourse.

Quantitative analysis of students' writing scores before and after the model revision revealed a clear upward trend in overall performance. Improvements were especially evident in indicators

related to message coherence, effectiveness of persuasive appeals, and the appropriateness of diction in relation to the advertised products. These findings indicate that the revised instructional design, characterized by clearer scaffolding, structured project stages, and iterative revision, supported students in moving beyond surface-level linguistic accuracy toward more strategic and goal-oriented advertising writing. A summary of this quantitative improvement is presented in Figure 1, which compares students' advertising writing scores before and after the poster revision stage

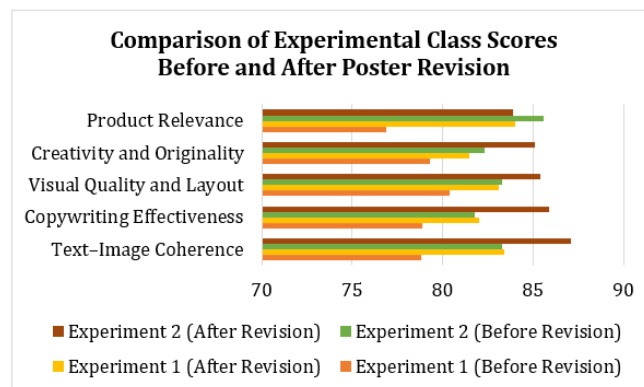


Fig 1: Comparison of Experimental Class Scores Before and After Poster Revision

Qualitative analysis of student work revealed substantive changes in how students approached the writing process. Students became more capable of identifying key selling points, selecting language that aligned with intended audiences, and constructing stronger calls to action. Writing was no longer treated as a static task but increasingly understood as an iterative process involving planning, drafting, evaluation, and revision. This shift is consistent with research showing that project-based writing instruction is most effective when learners are supported through cycles of feedback and revision rather than evaluated solely on final products (Kokotsaki et al., 2016; Zhang & Ma, 2023).

Improvements in writing performance were also closely associated with refinements in the assessment instruments. The revised rubrics provided clearer performance descriptors, enabling students to interpret quality standards for advertising texts more accurately. Consequently, revisions became more focused and purposeful, addressing not only linguistic correctness but also persuasive effectiveness and communicative impact. This finding aligns with studies on formative assessment in writing, which emphasize that explicit criteria and actionable feedback play a key role in enhancing students' self-regulation and writing development (Cantera et al., 2021; Fiskerstrand & Gamlem, 2023).

From a vocational perspective, the observed gains in writing performance suggest that the revised PjBL model supported advertising writing as a professional competence rather than a purely academic exercise. Students' texts increasingly reflected workplace-oriented communication practices, demonstrating greater sensitivity to audience needs, product positioning, and persuasive intent. In this respect, improvements in advertising writing performance can be understood as the combined effect of structured project design, continuous feedback, and alignment between instructional activities and professional communication demands. These findings reinforce international evidence that carefully designed and iteratively refined project-based learning can effectively strengthen vocationally relevant writing competencies (Tan et al., 2025; Zhang & Ma, 2023).

Quality of Multimodal Advertising Posters

The quality of students' multimodal advertising posters was examined as an indicator of their ability to integrate verbal and visual elements into a coherent and persuasive communicative artifact. The analysis focused on text-image coherence, layout consistency, the alignment of visual elements with communicative purposes, and the relevance of design choices to product characteristics and target audiences. A comparison between posters produced before and after the revision phase reveals a clear qualitative shift. While early versions tended to place text and images as separate components, revised posters demonstrated more purposeful multimodal integration, particularly in aligning verbal messages with dominant visual elements and organizing information hierarchically.

From a semiotic perspective, improvements in poster quality were reflected in students' growing ability to use visual elements as meaning-making resources rather than as decorative additions. In the pre-revision posters, images often functioned as visual embellishments with limited communicative contribution. After revision, text and images functioned more complementarily to construct persuasive meaning, allowing messages to be communicated more clearly and consistently. This pattern aligns with multimodal theory, which conceptualizes meaning as emerging from the functional interaction of multiple semiotic modes, including language, imagery, color, and spatial arrangement (Kress, 2010; Kress & Leeuwen, 2020).

Figure 2. Comparison of Advertising Posters Before and After Revision illustrates these changes visually, highlighting clearer reading paths, stronger alignment between slogans and images, and more deliberate use of visual hierarchy in the revised posters. Enhanced poster quality was also evident in visual composition and reading pathways.

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Revised posters displayed more systematic organization of elements, greater typographic consistency, and more deliberate use of visual space to guide audience attention. In contrast to the initial versions, which often lacked focal emphasis, the revised posters demonstrated clearer prioritization of information and improved audience orientation. These characteristics suggest increased design awareness, indicating that students became more conscious of how visual choices shape message interpretation. International studies similarly report that multimodal learning environments emphasizing design awareness and reflective revision contribute to more effective visual communication (Jewitt et al., 2025).



Fig 2: Comparison of Posters Before and After Revision

From an assessment perspective, the quality of multimodal posters reflects the **effectiveness** of evaluation criteria that foreground meaning relations across modes rather than focusing solely on visual aesthetics. The assessment rubric enabled evaluation of students' semiotic decision-making processes, including the rationale behind image selection, color use, and text placement in support of persuasive intent. Such an approach is consistent with research on multimodal composing assessment, which emphasizes the importance of assessing conceptual integration and meaning construction processes alongside final products (Hafner & Ho, 2020).

Within the vocational education context, improvements in multimodal poster quality also reflect students' growing awareness of professional communication conventions in advertising and creative industries. More integrated posters demonstrate sensitivity to product identity, visual consistency, and audience orientation, which are central to professional advertising practice. This observation aligns with research identifying multimodal competence as a core component of

contemporary professional literacy, particularly in visual communication and digital marketing domains (Arrieta-Cohen et al., 2024; Hafner & Ho, 2020).

Taken together, the analysis of multimodal advertising posters indicates that students' persuasive communication skills develop not merely through technical design practice but through their capacity to manage meaning relations between text and visual elements in a deliberate and reflective manner. The contrast between pre-revision and post-revision posters underscores the role of structured feedback, explicit assessment criteria, and iterative revision in supporting the development of multimodal vocational competencies (Tan et al., 2025).

Students' Learning Independence

Students' learning independence was examined as a process-oriented outcome of the implementation and refinement of the Project-Based Learning (PjBL) model, particularly in relation to task management, decision-making, and reflective learning practices. The analysis focused on indicators of independence such as students' ability to plan project work, manage time, seek and utilize learning resources autonomously, and revise their work based on feedback. Observation and questionnaire data indicate that, following the model revision, students demonstrated higher and more evenly distributed levels of learning independence.

Improvements in learning independence were reflected in changes in students' learning behaviors during writing and poster design activities. Students became less reliant on direct teacher instruction and showed greater initiative in exploring ideas, selecting communication strategies, and determining appropriate revision steps. These patterns suggest the development of self-regulated learning, characterized by learners' active control over learning goals, strategies, and self-evaluation processes. This finding aligns with international research highlighting that project-based learning fosters self-regulation when learners are given opportunities to make decisions and assume responsibility for their learning processes (Panadero, 2017; Zimmerman, 2002).

Learning independence was further strengthened by more structured and adaptive scaffolding implemented after the model revision. Teacher support was provided gradually and contextually, particularly during the project planning and reflection phases, enabling students to internalize learning strategies and apply them independently. This approach is consistent with the view that effective scaffolding facilitates a transition from dependence to autonomy rather than replacing learners' agency (Hmelo-silver et al., 2007). Within PjBL contexts, adaptive scaffolding plays a crucial role in helping students manage project complexity while maintaining learner autonomy.

From a vocational education perspective, increased learning independence has direct relevance to students' work readiness. Contemporary workplaces require individuals who can learn autonomously, adapt to changing demands, and solve problems independently. The findings indicate that PjBL provides a learning environment conducive to developing these capacities through project activities that require planning, decision-making, and self-evaluation. Open-access studies similarly report that project-based learning contributes to greater learner independence and responsibility among vocational students, particularly when projects are designed to resemble authentic workplace situations (Virtanen et al., 2014; Zhang & Ma, 2023).

The involvement of industry practitioners as feedback providers also contributed to the development of learning independence. External feedback encouraged students to engage in more critical self-evaluation and to make revision decisions without relying solely on teacher direction. This condition reinforced students' autonomous learning orientation and professional awareness. Research on work-integrated learning indicates that exposure to external professional standards can enhance learners' sense of responsibility and autonomy when such experiences are meaningfully embedded in instructional processes (Arinaitwe, 2021).

The findings on learning independence indicate that systematically designed and refined PjBL can foster students' self-regulation and autonomy in vocational learning contexts. Learning independence did not emerge instantaneously but developed through the interaction of project design, adaptive scaffolding, and feedback that encouraged reflection and self-directed improvement. Accordingly, learning independence can be understood as a key process outcome of project-based learning in vocational education, supporting students' readiness for lifelong learning and dynamic workplace environments.

Industry Practitioners' Feedback

Engagement with industry practitioners introduced an external professional perspective that could not be fully replicated within classroom-based instruction. Within the project-based learning context, practitioners' feedback functioned as authentic reference points through which students evaluated their work against real-world communication standards. Rather than concentrating on surface-level aesthetics, practitioners consistently emphasized message clarity, value propositions, and audience relevance as key indicators of effective advertising communication.

Evidence drawn from documented feedback notes indicates that practitioners repeatedly directed students' attention to the core communicative purpose of their posters. Typical comments highlighted the need to articulate a single, memorable key message, to strengthen the functional

relationship between visual elements and textual content, and to refine calls to action so they aligned more precisely with intended market segments. For instance, one practitioner remarked, “The message is still too broad. You need to decide what you want the audience to remember after seeing this poster” (Industry Practitioner 1). Another practitioner emphasized multimodal coherence by noting, “The visual looks attractive, but it does not yet support the main message. The image and the headline should work together” (Industry Practitioner 2). These comments illustrate that practitioners functioned not merely as evaluators but as critical readers who situated student products within authentic professional contexts.

In response to this feedback, students demonstrated noticeable changes in how they approached revision. Instead of making cosmetic adjustments, revisions increasingly focused on strategic communication choices. Students revised lexical selections, reorganized message structures, and recalibrated visual emphasis to better support persuasive intent. One practitioner explicitly encouraged this shift by stating, “Your call to action needs to be more specific. Who exactly are you talking to, and what do you want them to do?” (Industry Practitioner 1). This pattern suggests that practitioner feedback facilitated deeper reflection and more deliberate decision-making, reinforcing the role of feedback as a catalyst for the development of professional judgment (Boud & Molloy, 2013; Carless & Boud, 2018).

Beyond its influence on student revision practices, practitioner involvement also reshaped classroom interaction dynamics. Authority over quality judgments was no longer concentrated solely with the teacher; instead, the teacher assumed a facilitative role, supporting students in interpreting and operationalizing professional input. This redistribution of evaluative authority enriched the learning environment and strengthened students’ orientation toward workplace standards. Comparable findings in vocational education research indicate that such collaborative arrangements enhance learner responsibility and reflective engagement, particularly when professional input is specific, actionable, and pedagogically integrated (Naseer et al., 2025; Virtanen et al., 2014).

From a vocational education standpoint, practitioner feedback additionally served as an early form of professional socialization. Through exposure to industry-oriented critiques, students gained clearer insights into advertising conventions, including message consistency, clarity of value propositions, and coherence between visual identity and brand positioning. Research on work-integrated learning underscores that learning experiences incorporating external professional standards contribute meaningfully to the formation of students’ emerging professional identities

and readiness for employment (Arinaitwe, 2021; Billett, 2011).

Taken together, industry practitioners' feedback extended beyond a supplementary instructional role. By introducing authentic evaluative perspectives, it enriched learning processes, supported reflective revision, and strengthened the connection between classroom practices and professional communication demands. When thoughtfully integrated into project-based learning, practitioner feedback emerges as a strategic element for enhancing the relevance, credibility, and vocational orientation of language instruction in vocational education.

Challenges and Limitations

Despite the positive outcomes observed, several challenges and limitations emerged during the implementation of the revised Project-Based Learning (PjBL) model and warrant careful consideration. A primary challenge was the intensity of instructional support required during the early stages of advertising concept development. Many students experienced difficulty translating abstract product ideas into focused persuasive messages, which demanded sustained scaffolding during brainstorming, copy development, and message framing. In classes with a relatively large number of students, providing individualized guidance at these critical stages proved demanding and required careful instructional prioritization.

Another challenge concerned disparities in students' initial competencies, particularly in linguistic proficiency and visual communication skills. While some students demonstrated strong creative potential, others struggled to integrate textual and visual elements coherently within a single advertising message. Although the revised assessment rubrics clarified quality expectations, variations in students' prior exposure to design tools and advertising genres influenced the pace and depth of their progress. This condition indicates that the effectiveness of the model is partly contingent on students' baseline multimodal literacy, which may vary across vocational contexts.

The involvement of industry practitioners as guest teachers also presented practical constraints. Practitioner feedback was highly valued for its authenticity; however, limited availability and time constraints restricted the frequency and depth of professional interaction. In several instances, practitioner comments required pedagogical mediation to ensure that students could interpret and operationalize the feedback effectively. This limitation underscores the importance of the teacher's role as an instructional intermediary who translates professional standards into actionable learning steps.

From a methodological perspective, the implementation of the model was confined to a single vocational school and focused on advertising writing through poster-based multimodal products.

The findings should be interpreted within this specific instructional scope. The measurement of learning independence relied primarily on observation and self-report instruments, which captured short-term behavioral changes but did not fully account for the longitudinal development of self-regulated learning.

The focus on advertising texts and poster products limited the exploration of other vocational competencies, such as extended project management or cross-disciplinary collaboration. While the findings provide evidence of improved writing performance, multimodal integration, and learning independence, further studies are needed to examine the applicability of the model across different vocational subjects, media formats, and instructional durations

Structural Model Analysis (Inner Model)

The R^2 value illustrates the proportion of variance in the endogenous (dependent) variables that can be explained by the exogenous (independent) variables. For instance, Academic Culture (BUA) has an R^2 value of 0.882, which signifies that 88.2% of the variance in this variable is accounted for by the model. Generally, R^2 values are classified as low, medium, or high depending on the context of the study. Meanwhile, the f^2 (effect size) indicates the magnitude of an exogenous variable's influence on an endogenous variable. As an example, the Academic Atmosphere (SUA) variable exerts an effect size of 0.293 on the Graduate Competence (KOL) variable, indicating that SUA has a medium influence on KOL. The f^2 values are interpreted as 0.02 (small), 0.15 (medium), and 0.35 (large).

From a practical perspective, the R^2 and effect size results indicate that TEI managers should not interpret institutional leadership merely as administrative control, but as a strategic mechanism for improving learning quality. The strong explanatory power of the model suggests that graduate competence can be strengthened when leaders consistently align institutional vision, lecturer development, academic culture, and assessment practices. Therefore, managerial leadership needs to be translated into concrete actions, such as regular evaluation of learning quality, structured lecturer capacity-building programs, and curriculum review based on graduate competency needs. The effect of learning quality on graduate competence also implies that institutional improvement will have limited impact unless it is directly connected to classroom practices, assessment clarity, student autonomy, and problem-solving skill development.

Path Analysis and Hypothesis Testing

Path analysis and hypothesis testing are utilized to examine the direct and mediation effects among variables within the model concerning the formative factors of prospective vocational

teacher candidates' competencies. This process involves testing the statistical significance of each path coefficient to ensure that the presumed influence between variables is statistically valid (Ashraf & Ahmed, 2022; Rodriguez-Delgado et al., 2022). Furthermore, mediation analysis is specifically aimed at evaluating whether the relationship between two variables is mediated by a third variable. This analysis is crucial for uncovering the complex mechanisms within the model and providing a more profound understanding of the dynamics of the relationships between variables.

Table 4. Results of Path Analysis and Hypothesis Testing

Hyp.	Path	β -values (+)/(–)	T-statistics (>1.96)	p-values (<0.05)	Decision
H-DIR1	KEP → BUA	0.939	83.214	0	Accepted
H-DIR2	KEP → SUA	0.081	3.426	0.001	Accepted
H-DIR3	KEP → KOD	0.695	29.59	0	Accepted
H-DIR4	BUA → SUA	0.164	3.01	0.003	Accepted
H-DIR5	KOD → SUA	0.732	16.666	0	Accepted
H-DIR6	KOD → KUP	0.094	2.16	0.031	Accepted
H-DIR7	KOD → KOL	0.315	5.895	0	Accepted
H-DIR8	SUA → KUP	0.744	15.576	0	Accepted
H-DIR9	SUA → KOL	0.041	0.572	0.568	Rejected
H-DIR10	KUP → KOL	0.542	9.972	0	Accepted
H-IND1	SUA → KUP → KOL	0.403	7.515	0	Accepted
H-IND2	BUA → SUA → KOL	0.007	0.615	0.539	Rejected
H-IND3	BUA → SUA → KUP	0.122	2.776	0.006	Accepted
H-IND4	BUA → SUA → KUP → KOL	0.066	2.548	0.011	Accepted
H-IND5	KOD → SUA → KUP	0.544	14.041	0	Accepted
H-IND6	KOD → SUA → KUP → KOL	0.295	7.627	0	Accepted
H-IND7	KOD → SUA → KOL	0.03	0.553	0.581	Rejected
H-IND8	KOD → KUP → KOL	0.051	2.248	0.025	Accepted
H-IND9	KEP → SUA → KOL	0.003	0.535	0.593	Rejected
H-IND10	KEP → BUA → SUA → KOL	0.006	0.615	0.539	Rejected
H-IND11	KEP → BUA → SUA → KUP → KOL	0.062	2.543	0.011	Accepted
H-IND12	KEP → SUA → KUP → KOL	0.033	3.247	0.001	Accepted
H-IND13	KEP → KOD → SUA → KOL	0.021	0.552	0.582	Rejected
H-IND14	KEP → KOD → SUA → KUP → KOL	0.205	6.877	0	Accepted
H-IND15	KEP → KOD → KUP → KOL	0.035	2.228	0.026	Accepted
H-IND16	KEP → KOD → KOL	0.219	6.122	0	Accepted
H-IND17	KEP → BUA → SUA	0.154	3.013	0.003	Accepted
H-IND18	KEP → KOD → SUA	0.509	14.923	0	Accepted
H-IND19	KEP → KOD → KUP	0.065	2.16	0.031	Accepted
H-IND20	KEP → SUA → KUP	0.06	3.543	0	Accepted
H-IND21	KEP → KOD → SUA → KUP	0.379	12.178	0	Accepted
H-IND22	KEP → BUA → SUA → KUP	0.114	2.778	0.006	Accepted

The path analysis results show that the factors that shape the competence of prospective vocational teachers have varying degrees of influence. The most significant direct influence was found in path H-DIR1 (KEP → BUA) with a β -value of 0.939, indicating that the Managerial Leadership variable is the main and most fundamental predictor of the Academic Culture variable.

Meanwhile, hypothesis H-DIR9 (SUA → KOL) was rejected because the path coefficient was weak and statistically insignificant. In terms of indirect effects, the most significant mediation path was Hypothesis H-IND5 (KOD → SUA → KUP) with a β -value of 0.544. This shows that the Lecturer Competence variable has a very strong mediating role in influencing Learning Quality through Academic Atmosphere. Meanwhile, the weakest and insignificant indirect effect was found in the H-IND9 path (KEP → SUA → KOL), with a β -value of 0.003; therefore, this hypothesis was rejected.

Overall, the results of testing the hypotheses show that not all pathways have a significant influence in the model of vocational teacher candidate competency formation. The results of testing hypotheses H-DIR1 and H-DIR5 have very significant values. This indicates that the variables of Managerial Leadership directly and Lecturer Competence indirectly through Academic Atmosphere are the most crucial determinants in the formation of vocational teacher competencies. On the other hand, rejected hypotheses such as H-DIR9 and H-IND7 show that there are several paths tested that do not have a statistical effect in this study.

Discussion

The findings of this study indicate that the implementation of a constructivist-based Project-Based Learning (PjBL) model effectively improved students' ability to write persuasive advertising texts that were more purposeful, audience-oriented, and aligned with product characteristics. Students demonstrated significant progress in several aspects of advertising writing, including message clarity, diction, coherence, and copywriting effectiveness. The structured project stages, adaptive scaffolding, and continuous revision process helped students understand that advertising writing is not merely a linguistic activity but also a strategic communication process requiring creativity and professional awareness. These findings support the constructivist perspective that meaningful learning occurs when students actively construct knowledge through authentic experiences, collaboration, and reflective learning activities.

The study also revealed that PjBL contributed to the development of students' multimodal competence and learning independence. The revised advertising posters showed stronger integration between verbal and visual elements, where images, layouts, colors, and texts worked together to create more persuasive and coherent messages. The involvement of industry practitioners as feedback providers strengthened the authenticity and vocational relevance of the learning process, as students gained direct insight into professional communication standards within the creative and digital marketing industries. Several challenges were identified, including

limited instructional support in large classes and differences in students' initial language and visual literacy skills. The findings confirm that PjBL can serve as an effective instructional approach in vocational education by bridging the gap between classroom learning and professional workplace demands.

Conclusion

This study demonstrates that the implementation of Project-Based Learning (PjBL) in vocational high school advertising writing instruction yields meaningful improvements in both learning products and learning processes. Through advertising writing projects and the development of multimodal posters, students engaged actively in constructing persuasive messages, integrating verbal and visual elements, and reflecting on the quality of their work through authentic feedback. A structured project design, adaptive scaffolding, and explicit assessment practices supported improvements in writing performance, multimodal product quality, and students' learning independence within a vocational context. These findings highlight the importance of systematically linking project design stages with vocational competency development in advertising writing instruction.

From a theoretical perspective, the findings affirm the relevance of constructivist principles in project-based writing instruction. The PjBL approach positioned students as active learners who constructed knowledge and skills through experience, social interaction, and ongoing reflection rather than through linear content transmission. By situating writing activities within professional communication practices and incorporating feedback from industry practitioners, learning became more contextualized and meaningful. Practically, these results offer guidance for vocational teachers in designing language instruction that aligns with the characteristics of vocational education and workplace demands, particularly in fostering creative and professional communication competencies.

References

- Arinaitwe, D. (2021). Practices and strategies for enhancing learning through collaboration between vocational teacher training institutions and workplaces. *Empirical Research in Vocational Education and Training*, 13(1). <https://doi.org/10.1186/s40461-021-00117-z>
- Arrieta-Cohen, M. C., Torres-Arizal, L. A., & Gómez-Yepes, R. L. (2024). Evaluating the impact of an educational intervention using project-based learning on postpandemic recovery in rural

Email : joves@mpv.uad.ac.id

Website : <http://journal2.uad.ac.id/index.php/joves>

- Colombia. *Education Sciences*, 14(12). <https://doi.org/10.3390/educsci14121341>
- Billett, S. (2011). *Vocational education: Purposes, traditions and prospects*. Springer.
- Boud, D., & Molloy, E. (2013). Rethinking models of feedback for learning: The challenge of design. *Assessment and Evaluation in Higher Education*, 38(6), 698–712. <https://doi.org/10.1080/02602938.2012.691462>
- Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Springer.
- Cantera, M. A., Arevalo, M.-J., Garcia-Marina, V., & Alves-Castro, M. (2021). A rubric to assess and improve technical writing in undergraduate engineering courses. *Education Sciences*, 11(4).
- Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment and Evaluation in Higher Education*, 43(8), 1315–1325. <https://doi.org/10.1080/02602938.2018.1463354>
- Chan, S. W. C. (2025). Assessing multimodal compositions in EAP context: Raters' perceptions and operationalization of assessment criteria. *Language Assessment Quarterly*, 22(4–5), 555–581. <https://doi.org/10.1080/15434303.2025.2605656>
- Fiskerstrand, P., & Gamlem, S. M. (2023). Instructional feedback to support self-regulated writing in primary school. *Frontiers in Education*, 8(July). <https://doi.org/10.3389/educ.2023.1232529>
- Hafner, C. A., & Ho, W. Y. J. (2020). Assessing digital multimodal composing in second language writing: Towards a process-based model. *Journal of Second Language Writing*, 47, Article 100710. <https://doi.org/10.1016/j.jslw.2020.100710>
- Han, Y. (2020). Advertisement on Tik Tok as a pioneer in new advertising era: Exploring its persuasive elements in the development of positive attitudes in consumers. *Science and Technology*, 2(11), 81–92. <https://doi.org/10.25236/FSST.2020.021113>
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, and Clark. *Educational Psychologist*, 42(2), 99–107. <https://doi.org/10.1080/00461520701263368>
- Jewitt, C., Bezemer, J., & O'Halloran, K. (2025). *Introducing multimodality*. Routledge.
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving Schools*, 19(3), 1–11. <https://doi.org/10.1177/1365480216659733>
- Krauss, J., & Boss, S. (2013). *Thinking through project-based learning: Guiding deeper inquiry*. Corwin.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*.

Routledge.

Kress, G., & van Leeuwen, T. (2020). *Reading images: The grammar of visual design*. Routledge.

Marbun, M. E., & Prastawa, S. (2023). Implementasi industri kreatif pada pembelajaran produk kreatif dan kewirusahaan pada sekolah menengah kejuruan di Surakarta. *Educational Journal: General and Specific Research*, 3(Juni), 542–551.

Midgette, E., Stewart, O. G., & August, I. (2025). Understanding multimodal assessment practices in higher education to improve equity. *Education Sciences*, 15(11). <https://doi.org/10.3390/educsci15111523>

Molenda, M. (2015). In search of the elusive ADDIE model. *Performance Improvement*, 54(2), 40–42. <https://doi.org/10.1002/pfi>

Naseer, F., Tariq, R., Alshahrani, H. M., Alruwais, N., & Al-Wesabi, F. N. (2025). Project-based learning framework integrating industry collaboration to enhance student future readiness in higher education. *Scientific Reports*, 15(1), 1–25. <https://doi.org/10.1038/s41598-025-10385-4>

Nasution, A., Siddik, M., Manurung, N., & Royal, S. (2021). Efektivitas mobile learning dalam pembelajaran bahasa Inggris pada sekolah menengah kejuruan. *Journal of Science and Social Research*, 4307(1), 1–5. <http://jurnal.goretanpena.com/index.php/JSSR>

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8(APR), 1–28. <https://doi.org/10.3389/fpsyg.2017.00422>

Pepple, D. G., Akaighe, G. O., Sambo, A., Bosah, G., & Trollman, H. (2025). Using guest lectures to enhance student employability: Pedagogical considerations. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2452076>

Percy, L., & Rosenbaum-Elliott, R. (2016). *Strategic advertising management* (5th ed.). Oxford University Press.

Putra, R. C., Syaom Barliana, M., Komaro, M., & Hamdani, A. (2025). Bridging theory and practice: A systematic review of work-integrated learning frameworks in vocational education. *JOVES*, 8(2), 368–386.

Rahmawati, E., Muslim, S., Soeryanto, S., & Rijanto, T. (2021). Enhancing students learning outcomes and creative thinking skills in computer numeric control subject using project-based learning model. *Journal of Vocational Education Studies*, 4(2), 131–142. <https://doi.org/10.12928/joves.v4i2.4923>

Email : joves@mpv.uad.ac.id

Website : <http://journal2.uad.ac.id/index.php/joves>

- Tan, L., Ratanaolarn, T., & Sriwisathiyakun, K. (2025). Project-based blended learning for vocational education: Enhancing digital marketing competencies and team spirit. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2498092>
- Virtanen, A., Tynjälä, P., & Eteläpelto, A. (2014). Factors promoting vocational students' learning at work: Study on student experiences. *Journal of Education and Work*, 27(1), 43–70. <https://doi.org/10.1080/13639080.2012.718748>
- Wurdinger, S. D. (2016). *The power of project-based learning: Helping students develop important life skills*. Rowman & Littlefield.
- Zhang, L., & Ma, Y. (2023). A study of the impact of project-based learning on student learning effects: A meta-analysis study. *Frontiers in Psychology*, 14(July), 1–14. <https://doi.org/10.3389/fpsyg.2023.1202728>
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2