Navigating Industry Demands in Visual Arts Education: A Quantitative CIPP Evaluation of Indonesia's Work-Integrated Learning Initiative for Inclusive Vocational Preparation

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ABSTRACT:
The rapid expansion of the creative industry requires Visual Communication Design (VCD) higher education to continuously revise curricula for emerging digital technologies, particularly for students with diverse learning needs pursuing inclusive vocational pathways. This quantitative descriptive-evaluative study examines Work-Integrated Learning (WIL) in Indonesian VCD education during the transition from MSIB to Magang Berdampak, using the CIPP (Context, Input, Process, Product) framework at Universitas Negeri Surabaya. Data were collected from 28 MSIB participants via self-assessment questionnaires measuring technical competencies (9 items), non-technical competencies (13 items), implementation challenges (5 items), and perceived curriculum adjustment needs (3 items). Students developed stronger non-technical competencies (M=3.91) than technical competencies (M=3.24), revealing a sharp polarization: strong mastery of traditional skills—Basic Design Theory (4.32), Digital Illustration (4.22), and 2D Graphic Design (4.14)—alongside marked deficiencies in advanced digital competencies: 3D Design (1.88), Game Development (2.11), and UI/UX (2.59). Primary challenges were time management (M=2.61) and applying theory to practice (M=2.32). Students strongly endorsed more intensive industry collaboration (M=4.79) and greater technical skills focus (M=4.75). While MSIB effectively develops professional skills, it insufficiently addresses advanced digital competencies due to concentrated Graphic Design placements and curriculum gaps. Recommendations include curriculum reorientation toward digital competencies, strategic industry partnerships, and policy alignment supporting inclusive WIL implementation.

Keywords: Work-Integrated Learning (WIL), CIPP evaluation, Visual Communication Design, Competency development, Indonesian higher education, Inclusive vocational education

1. Introduction

The global creative industry's rapid expansion challenges Visual Communication Design (VCD) higher education to continuously revise curricula around new digital technologies and marketplace requirements. Work-Integrated Learning (WIL) is widely accepted as an effective pedagogical approach for narrowing the gap between academic and professional practice and improving graduateness and employability (Cooper et al., 2010; Sattler & Peters, 2013). In Indonesia, WIL has been implemented through the Certified Internship and Independent Study program (MSIB) under the Kampus Merdeka initiative of Kemdikbudristek, and subsequently reinforced by the Magang Berdampak (Impactful Internship) program under Kemdikti Saintek. This experiential model aims to equip students with a combination of technical and non-technical skills to meet industry needs.

From an inclusive and special education perspective, these developments carry particular significance. Students with diverse learning needs, including disabilities, require educational pathways offering authentic workplace experience, structured support, and competency-based assessment that recognizes varied learning trajectories (Kurth et al., 2019; Wehmeyer et al., 2017). WIL programs designed with inclusive principles can bridge academic preparation and meaningful employment for students facing additional barriers to workforce entry, yet questions remain about whether the MSIB-to-Magang Berdampak transition adequately addresses the diverse competency needs of all students, particularly in advanced digital skills.

Although this policy transition has broadened industry engagement, integrating professional practice with the regular VCD curriculum remains challenging. While work-based practice is assumed to balance student competencies (Billett, 2009; Kolb, 1984), a striking dichotomy is observed: WIL effectively sharpens non-technical competencies such as professional communication and project management, but students show a clear limitation in mastering advanced digital skills—UI/UX, Game Development, and 3D Design (Aditya & Kencanawaty, 2024)—while excelling in the traditional design competencies emphasized by the curriculum.

This polarization presents particular challenges for students with disabilities. Learners with specific learning disabilities, attention disorders, or autism spectrum conditions may experience heightened difficulty with the self-directed learning and time-management demands of WIL, even while demonstrating strong abilities in their areas of strength (Fabrizio et al., 2022; Gelbar et al., 2022). The immersive, fast-paced creative industry environment can create additional barriers for students requiring more structured support, and the concentration of placements in Graphic Design rather than more technically demanding fields may reflect systemic factors limiting access to diverse vocational pathways.

Integrating MSIB into pedagogical design also involves conceptual elements shaping students' creative and critical thinking (Kusumandyoko et al., 2025), revealing a gap between curriculum ideology and actual labour-market needs that demands a more precise educational structure. VCD Unesa's pre-existing WIL framework—developed since 2015, ahead of the national MBKM policy launched in 2021—allowed rapid engagement with industry partners under MSIB, and later under Magang Berdampak from 2025, consistently balancing technical (hard) and non-technical (soft) skills.

This reflects a more fundamental challenge in shifting learning from classrooms to industry environments: students consistently struggle to bridge theoretical knowledge and the time- and workflow-sensitive skills industry demands. Universities can no longer rely solely on classroom-based teaching but must build robust strategic partnerships with industry to strengthen digital-technology-based teaching while still nurturing students' character and soft skills (Rahman et al., 2023). The inclusive education paradigm further emphasizes that curriculum restructuring must apply universal design principles—multiple means of engagement, representation, and expression (CAST, 2018)—so that WIL can serve as a bridge to authentic employment for students with diverse learning styles and needs (Getzel & Thoma, 2018).

An integrated and systematic program evaluation framework is necessary to understand the full scope of WIL programs and the intricacies of policy changes. This research applies the CIPP (Context, Input, Process, Product) framework proposed by Stufflebeam & Zhang (2017), analyzing the WIL policy and the design of educational ideology (Context), the availability of academic and industry resources (Input), the nature of the practice and the difficulties associated with the adjustments of work (Process), and the nature of the outcomes related to student competencies (Product). The CIPP framework is particularly well-suited for evaluating programs from an inclusive education perspective because it systematically examines multiple levels of program functioning that may affect students with diverse needs: the Context dimension allows examination of whether program goals reflect a commitment to inclusive vocational preparation; the Input dimension assesses whether resources and partnerships are adequate to support diverse learners; the Process dimension evaluates whether implementation practices accommodate varied learning needs; and the Product dimension measures whether outcomes are equitable across student subgroups.

The primary problem addressed is the mismatch between competencies developed through the regular VCD curriculum and the practical and ideological demands of the creative industry, as WIL policy transitions from MSIB to Magang Berdampak. Through the CIPP lens, this stems from uncertainty about policy relevance in the context dimension; challenges in resource readiness, partner qualifications, and uneven placement distribution in the input dimension; obstacles in translating theory into professional workflow and time management in the process dimension; and, ultimately, a marked polarization between strong conventional and soft skills and deficient advanced digital competencies (UI/UX, 3D Design, Game Development) in the product dimension.

This study addresses the following research questions: What are the levels of technical and non-technical competencies developed by VCD students through MSIB participation?

How do the competencies developed through MSIB align with the regular VCD curriculum?

What challenges do students face in applying curriculum knowledge during MSIB?

What curriculum adjustments do students perceive as necessary based on their WIL experiences?

Literature Review

Work-Integrated Learning and Experiential Learning Theory

Work-Integrated Learning (WIL) is rooted in experiential learning theory (Kolb, 1984), which frames knowledge as cultivated through a cyclical process of concrete experience, reflective observation, abstract conceptualization, and active experimentation—learning as an active, iterative construction of meaning rather than passive reception. Billett (2009) extended this view, arguing that WIL forms students' professional identities by helping them navigate the interplay between academic dispositions and workplace norms, reframing WIL as integral to professional formation rather than a supplementary activity. Empirical literature consistently documents WIL's effectiveness in bridging academic and labour-market expectations, equipping students with both technical competencies and valued professional dispositions (Cooper et al., 2010; Sattler & Peters, 2013). For students with disabilities, WIL holds particular promise for enhancing self-determination, career awareness, and social capital (Carter et al., 2016; Wehman et al., 2015), though these benefits depend on adequate support structures such as clear expectations, individualized accommodations, and ongoing mentorship. In creative arts education specifically, WIL extends beyond graduate attributes to the cultivation of creative identities and professional practices authentic to disciplinary contexts (Fleischmann, 2015; Rourke et al., 2018), requiring a careful balance between artistic integrity and commercial viability.

Visual Arts Pedagogy and the Imperative of Digital Competency

VCD teaching has transformed alongside the automation and digitalization of creative industries. Traditional curricula emphasizing drawing, colour theory, typography, and print-based design are increasingly insufficient, as industry innovation consistently outpaces curricular response (Aditya & Kencanawaty, 2024)—a disconnect most acute in emerging fields such as UI/UX, Game Development, and 3D Design, where technology evolves faster than review cycles can match. Contemporary practice increasingly requires proficiency in AI-assisted image generation, generative design, data visualization, and AR/VR, fundamentally transforming design work beyond conventional studio paradigms.

From an inclusive education perspective, rapid digital transformation creates both opportunity and risk: digital tools can serve as assistive technologies enabling students with motor, visual, or cognitive impairments to engage in design work (Lazar et al., 2021), yet the pace of change may widen gaps between students with access to advanced training and those without, particularly when WIL placements concentrate in traditional fields. Empirical evidence from Indonesian higher education confirms this polarization between mastery of conventional skills and proficiency in advanced digital domains, with significant implications for employability, as universities can no longer depend on classroom-based teaching alone but must build robust industry partnerships (Rahman et al., 2023).

Educational Ideology and Policy Dynamics in the MSIB and Design Pedagogy

The Merdeka Belajar Kampus Merdeka (MBKM) policy, anchored in Ministerial Regulation No. 3 (2020), guarantees students' rights to learn outside their home study programs, including up to three semesters of external learning activities (Handini et al., n.d.). The Certified Internship and Independent Study program (MSIB) emerged as MBKM's flagship initiative, widely adopted across Indonesian universities including Unesa, which leveraged its pre-existing WIL infrastructure for rapid engagement with industry partners. The subsequent transition to the Magang Berdampak (Impactful Internship) scheme under Kemdikti Saintek reflects continued policy evolution toward structured mentoring and quality standards. However, Kusumandyoko et al. (2025) note persistent ideological tensions between academic values (theoretical understanding, critical thinking) and industry values (practical execution, efficiency) in curriculum design, arguing that reconciling these tensions requires a precise pedagogical structure rather than passive policy compliance. Growing scholarly attention to MBKM implementation underscores the need for continuous evaluation of how policy shifts translate into actual classroom and workplace practice, particularly regarding equitable access for students with diverse learning needs.

The CIPP Evaluation Model: A Comprehensive Framework for Educational Assessment

The Context dimension examines alignment between programme objectives and the broader social, economic, and policy environment—for MBKM, this includes policy relevance and curriculum ideology. The Input dimension assesses resources and stakeholder readiness, including faculty qualifications, infrastructure, and, critically for WIL, the quality of industry partnerships. The Process dimension examines implementation fidelity, challenges encountered, and adjustments made, including supervision quality and stakeholder communication. The Product dimension evaluates outcomes and impacts, including competency development and stakeholder satisfaction. The CIPP model's application to art and design education has yielded valuable insights. Elmas and Altıntaş (2025) employed the framework to evaluate the undergraduate painting education programme at Aix-Marseille University in France, examining the balance between theoretical and practical components and the adequacy of course content; their findings revealed that while the programme fostered critical thinking and creativity, technological and material deficiencies negatively impacted student performance, underscoring the importance of interdisciplinary collaboration and technological investment. Research conducted at Universitas Negeri Surabaya on industrial internship programmes similarly found that while context and input components achieved good-to-very-good ratings, the process component revealed persistent challenges in coordination and monitoring, highlighting the model's capacity to generate actionable recommendations across multiple dimensions of implementation. Meiklejohn et al. (2023) further demonstrated the model's utility in a multimethod design assessing an interprofessional education framework across eleven health professions, showing how it can assist the systematic implementation of curriculum and identify gaps in implementation that correspond to gaps in graduate knowledge and skills. Applying CIPP to WIL evaluation in Indonesia is particularly timely given the rapid MSIB-to-Magang Berdampak policy evolution. The model's emphasis on context is especially pertinent given the ideological tensions Kusumandyoko et al. (2025) identify between academic and industry values, while its attention to process and product enables identification of both the mechanisms through which WIL shapes learning and the resulting competency profile.

2. Methodology

2.1 Research Design and Approach

This study employs a quantitative descriptive-evaluative research design to comprehensively assess the Work-Integrated Learning (WIL) program in Visual Communication Design (VCD) education across the four dimensions of the CIPP (Context, Input, Process, Product) evaluation framework. The quantitative approach is justified by the study's focus on measuring competency levels, identifying patterns across the student cohort, and generating statistical evidence to inform program evaluation and curriculum development. The CIPP evaluation framework serves as the organizing meta-theoretical structure for the entire study. Each data collection instrument and analytical procedure is designed to address one or more of the four evaluative dimensions: Context (policy relevance, educational ideology, curriculum alignment), Input (academic resource readiness, industry partner qualifications, student placement distribution), Process (translation of theory into practice, workflow adaptation, time management dynamics), and Product (student competency achievement, polarization patterns, and overall program outcomes), ensuring that the evaluation is systematic, comprehensive, and aligned with established best practices in educational programme assessment.

2.2 Research Setting and Participants

The research was conducted at the VCD program of Universitas Negeri Surabaya (Unesa), a public university that pioneered WIL initiatives since 2015, predating the national MBKM policy launched in 2021. Unesa's pre-existing WIL infrastructure and its sustained engagement with both the MSIB programme (under Kemdikbudristek) and the subsequent Magang Berdampak scheme (under Kemdikti Saintek) make it an exemplary case for examining the evolution and effectiveness of WIL in Indonesian visual arts higher education.

2.2.1 Sample

The sample comprises 28 VCD students who participated in the MSIB programme during the 2022 cohort, selected through purposive sampling requiring that participants had completed at least one semester (minimum 20 credits) of MSIB activities, encompassing either a Certified Internship, Independent Study, or a combination of both. The sample demographic profile shows a gender distribution of 20 female participants (71.4%) and 8 male participants (28.6%), all from the 2022 academic cohort, with MSIB duration ranging from one to two semesters and program types spanning internship-only, independent-study-only, or combined formats. The primary placement field was Graphic Design (dominant), with some students engaged in UI/UX, digital illustration, videography, and game development. While the sample size is modest (n=28), it represents the total population of VCD students from this specific cohort who participated in MSIB activities during the study period. This sample is deemed sufficient for descriptive and correlational analyses, though generalizations beyond this context are approached with appropriate caution, as acknowledged in the study's limitations.

2.3 Data Collection Instruments

The data collection instruments were developed based on established competency frameworks and validated through expert review. The primary quantitative instrument is a structured self-assessment questionnaire developed specifically for this study, validated by three VCD academics and two evaluation research specialists, and piloted with a separate group of 10 MSIB participants to ensure clarity and reliability. Internal consistency, measured using Cronbach's Alpha, exceeded 0.80 for all constructs, indicating high reliability. The questionnaire comprised four sections, each assessed on a 5-point Likert scale. Section A measures Technical Competence (9 items) covering VCD professional skills from Basic Design Theory to emerging digital fields, derived from a review of VCD competency frameworks and industry requirements. Section B measures Non-Technical Competence (13 items), selected based on WIL literature (Cooper et al., 2010; Billett, 2009) and industry feedback on valued professional attributes. Section C assesses Implementation Challenges (5 items, one positively framed and four negatively framed), covering time management, theory application, cross-background communication, and technology adaptation. Section D captures Perceived Curriculum Adjustment Needs (3 items) regarding reforms needed to better support WIL outcomes.

2.4 Data Collection Procedures

The questionnaire was administered online to the 28 MSIB participants, who were contacted via institutional email and messaging platforms, with the survey open for two weeks to maximize response. Participants received clear information on the study's purpose, voluntary participation, and confidentiality, and provided electronic informed consent prior to completion. Data collection yielded 27 valid responses for analysis.

2.5 Data Analysis

Data analysis used SPSS version 26.0, applying descriptive statistics (means, standard deviations, frequencies) to characterize response distributions and identify patterns across competency domains, alongside overall technical and non-technical competency profiles. Comparative analyses examined demographic differences: independent samples t-tests for binary variables (gender, program duration) and one-way ANOVA for program type, with Pearson's correlation used to test whether technical and non-technical competencies develop independently or in parallel. All tests were conducted at $\alpha = 0.05$, with effect sizes (Cohen's d for t-tests; eta-squared for ANOVA) calculated for practical significance, alongside standard data screening for missing values, outliers, and assumption violations.

3. Results

This chapter presents the findings from the quantitative data analysis of the self-assessment questionnaire administered to 28 Visual Communication Design (VCD) students who participated in the MSIB programme during the 2022 cohort at Universitas Negeri Surabaya. A total of 28 respondents completed the questionnaire, with 27 valid responses included in the final analysis, comprising 20 female participants (74.1%) and 8 male participants (25.9%). Results are organized according to the four dimensions of the CIPP evaluation framework—Context, Input, Process, and Product—and presented through descriptive statistics, subgroup analyses, and correlational analyses, providing a comprehensive picture of student competency profiles, implementation challenges, and perceptions of curriculum needs. Participants had varying durations of MSIB participation, spanning Internship-only, Independent Study-only, or combined formats, with placements dominated by Graphic Design alongside some students engaged in UI/UX, digital illustration, videography, and game development.

3.1 Product Dimension: Technical Competence

The overall technical competence index was 3.24 out of 5, a moderate score that masks a sharp polarization across skill areas, as Table 1 illustrates.

Table 1: Technical Competence Mean Scores

Technical Competency	Mean	SD	Rank
Basic Design Theory	4.32	0.61	1
Digital Illustration	4.22	0.80	2
2D Graphic Design	4.14	0.71	3
Videography	3.32	0.90	4
Animation	3.23	0.85	5
Motion Graphics	3.05	0.88	6
UI/UX Design	2.59	1.39	7
Game Development	2.11	1.19	8
3D Design	1.88	1.11	9
Overall Technical Competence	**3.24**	**0.94**	**-**

The three highest-scoring competencies—Basic Design Theory (M=4.32, SD=0.61), Digital Illustration (M=4.22, SD=0.80), and 2D Graphic Design (M=4.14, SD=0.71)—represent core skills emphasized from early semesters, with the low standard deviation for Basic Design Theory indicating consistent proficiency across the cohort.

Conversely, the three lowest-scoring competencies represent emerging digital fields demanding specialized software and workflows: 3D Design (M=1.88, SD=1.11) was largely absent from the curriculum and inadequately addressed through MSIB; Game Development (M=2.11, SD=1.19) showed high variability reflecting uneven exposure; and UI/UX Design (M=2.59, SD=1.39) showed the highest variability of all competencies, likely reflecting the uneven distribution of placements in this rapidly growing field.

3.2 Product Dimension: Non-Technical Competence

The overall non-technical competence index was 3.91 out of 5, substantially higher and more consistent than technical competence (3.24), as shown in Table 2.

Table 2: Non-Technical Competence Mean Scores

Non-Technical Competency	Mean	SD	Rank
Project Management	4.32	0.72	1
Constructive Feedback	4.29	0.66	2
Technology Adaptation	4.21	0.74	3
Communication	4.18	0.72	4
Team Collaboration	4.07	0.72	5
Adaptability	4.00	0.71	6
Creativity	3.96	0.69	7
Self-Assessment	3.89	0.78	8

Self-Confidence	3.82	0.79	9
Interpersonal Skills	3.79	0.72	10
Leadership	3.41	1.12	11
Decision Making	3.39	0.83	12
Stress Management	3.32	1.12	13
Overall Non-Technical Competence	**3.91**	**0.80**	**-**

The highest-scoring competencies—Project Management (M=4.32), Constructive Feedback (M=4.29), Technology Adaptation (M=4.21), Communication (M=4.18), and Team Collaboration (M=4.07)—reflect the immersive, project-based nature of MSIB experiences, developed through daily exposure to professional workflows, feedback cycles, and evolving tools and platforms. The lowest-scoring competencies—Stress Management (M=3.32, SD=1.12), Decision Making (M=3.39, SD=0.83), and Leadership (M=3.41, SD=1.12)—showed greater variability, suggesting these depend more on the specific responsibilities and autonomy afforded by individual placements rather than developing automatically through MSIB participation.

3.3 Product Dimension: Correlation Between Technical and Non-Technical Competencies

Pearson's correlation analysis revealed a moderate-to-strong positive relationship between overall technical and non-technical competence ($r=0.64$, $p<0.01$), suggesting these domains develop in parallel rather than independently during WIL. Traditional design competencies (Basic Design Theory, Digital Illustration, 2D Graphic Design) correlated more strongly with non-technical competencies ($r=0.58$–0.67) than advanced digital competencies (3D Design, Game Development, UI/UX; $r=0.21$–0.35), indicating that established, curriculum-embedded skills are more closely tied to professional attribute development than emerging digital skills, which may follow a distinct developmental pathway.

3.4 Process Dimension: Implementation Challenges

Table 3 presents the five items assessing implementation challenges encountered during MSIB.

Table 3: Implementation Challenges Mean Scores

Implementation Challenge	Mean	SD
Adaptation to Professional Industry Standards	3.79	0.88
Time Management Constraints	2.61	1.07
Difficulty Applying Theory to Practice	2.32	0.98
Cross-Background Communication	2.11	0.91
Technology/Tool Adaptation	2.00	0.82

Time management constraints (M=2.61) and difficulty applying theory to practice (M=2.32) were the most prominent challenges, while technology adaptation (M=2.00) and cross-background communication (M=2.11) were comparatively minor. The theory-practice gap reflects the longstanding difficulty of translating classroom knowledge into contextualized professional situations, while time management challenges reflect differing academic and professional temporal structures.

3.5 Context Dimension: Perceived Curriculum Adjustment Needs

Table 4 presents student perceptions regarding necessary curriculum adjustments.

Table 4: Perceived Curriculum Adjustment Needs Mean Scores

Curriculum Adjustment Need	Mean	SD
More Intensive Industry Collaboration	4.79	0.42
Greater Focus on Technical Skills	4.75	0.52
More Emphasis on Soft Skills	4.15	0.77

Students most strongly endorsed more intensive industry collaboration (M=4.79, SD=0.42) and greater focus on technical skills (M=4.75, SD=0.52), both with near-unanimous, low-variance agreement, directly addressing the competency polarization identified in the Product dimension and aligning with Aditya and Kencanawaty's (2024) observation that industry innovation outpaces curricular response. Soft skills development, while still strongly endorsed (M=4.15), showed comparatively greater variation, suggesting students view it as already reasonably well developed.

3.6 Subgroup Analyses

Independent samples t-tests examined competency differences by gender and program duration, and one-way ANOVA by program type; given the small sample, these results should be interpreted with caution.

3.6.1 Gender Differences

Table 5 presents competency scores by gender.

Table 5: Competency Scores by Gender

Competency Domain	Female (n=20)	Male (n=7)	t	p	Cohen's d
Technical Competence	3.19 (0.92)	3.38 (0.98)	-0.48	0.64	0.20
Non-Technical Competence	3.88 (0.78)	4.01 (0.85)	-0.38	0.71	0.16

No significant differences emerged for technical (t=-0.48, p=0.64) or non-technical competence (t=-0.38, p=0.71), though the small male subsample (n=7) limits statistical power.

3.6.2 Program Duration

Table 6 presents competency scores by program duration.

Table 6: Competency Scores by Program Duration

Competency Domain	1 Semester (n=18)	2 Semesters (n=9)	t	p	Cohen's d
Technical Competence	3.21 (0.96)	3.30 (0.92)	-0.24	0.81	0.09
Non-Technical Competence	3.89 (0.82)	3.95 (0.77)	-0.19	0.85	0.08

No significant differences emerged between one- and two-semester participants, with negligible effect sizes (Cohen's d=0.1628-1642.09), suggesting WIL benefits may plateau after a certain duration or that experience quality matters more than length.

3.6.3 Program Type

Table 7 presents competency scores by program type.

Table 7: Competency Scores by Program Type

Competency Domain	Internship Only (n=15)	Independent Study Only (n=8)	Combined (n=4)	F	p	η^2
Technical Competence	3.20 (0.93)	3.28 (0.97)	3.32 (0.95)	0.04	0.96	0.00
Non-Technical Competence	3.90 (0.79)	3.87 (0.83)	4.02 (0.75)	0.05	0.95	0.00

No significant differences emerged across Internship-only, Independent-Study-only, or combined formats for either competency domain (η^2=0.00 for both).

3.6.4 Placement Field

The sample was predominantly concentrated in Graphic Design placements, limiting statistical comparison across fields. Students placed in UI/UX, digital illustration, or game development showed slightly higher proficiency in those specific areas, though small subsample sizes preclude meaningful statistical comparison.

4. Discussion

This chapter interprets the findings within the theoretical literature and the CIPP framework, addressing the research questions in Context, Input, Process, and Product order.

4.1 Product Dimension: Competency Polarization and Inclusive Vocational Preparation

The most striking finding is the sharp polarization in technical competencies: strong mastery of traditional skills—Basic Design Theory (4.32), Digital Illustration (4.22), 2D Graphic Design (4.14)—against significant deficiencies in advanced digital competencies—3D Design (1.88), Game Development (2.11), UI/UX (2.59)—directly addressing the first research question. The strong traditional-skill performance reflects systematic curriculum emphasis from early semesters, while the weak advanced-digital performance reveals a genuine curriculum gap, with high standard deviations (1.1628-1642.39) indicating that exposure depends on individual initiative or placement luck rather than systematic provision.

From an inclusive education perspective, this polarization carries particular risk: students with learning disabilities, attention disorders, or autism spectrum conditions often benefit from explicit instruction, structured learning sequences, and opportunities for repeated practice (Gelbar et al., 2022; Wehmeyer et al., 2017), so when advanced digital competencies are not systematically taught but instead left to individual initiative or chance placement opportunities, students who require more structured support may be disproportionately disadvantaged. Universal design principles suggest that curriculum should provide multiple means of engagement, representation, and expression (CAST, 2018), ensuring that all students have opportunities to develop competencies across the full range of professional design fields.

The stronger, more consistent non-technical competence (M=3.91 vs. M=3.24) aligns with WIL literature on work-based learning's effectiveness in developing professional and communication skills (Cooper et al., 2010; Billett, 2009), encouraging for inclusive education since these skills are crucial across ability levels. The highest-scoring competencies (Project Management, Constructive Feedback, Technology Adaptation) reflect daily professional engagement, while lower-scoring ones (Stress Management, Decision Making, Leadership) are more context-dependent, varying with the autonomy and responsibility each placement provides. The moderate-to-strong technical/non-technical correlation (r=0.64) supports Billett's (2009) concept of co-participation, where workplace learning develops both skill sets in parallel rather than as separate tracks.

4.2 Process Dimension: Implementation Challenges and Pedagogical Implications

Addressing the third research question, the most significant challenges were pedagogical and organizational rather than technical or social: time management (M=2.61) and theory-practice application (M=2.32) were most prominent, while technology adaptation (M=2.00) and cross-background communication (M=2.11) were comparatively minor. The theory-practice gap reflects the enduring challenge of translating decontextualized classroom knowledge into messy professional situations—students with learning disabilities or executive function challenges may need additional scaffolding here (Fabrizio et al., 2022)—while time management challenges reflect differing academic and professional temporal structures, potentially exacerbated for students needing more processing or accommodation time.

The relative ease of technology adaptation suggests students' foundational digital literacy is sufficient, perhaps reflecting their digital nativity and the curriculum's emphasis on technology learning; the moderate ability to adapt to professional industry standards (M=3.79) indicates most students navigate ideological tensions successfully, though variability suggests some struggle more than others. This is encouraging from an inclusive perspective, as it suggests that technological barriers may be less significant than pedagogical and organizational barriers for students with diverse learning needs. These findings point to clear programme design implications: explicit preparation for the academic-to-professional transition through case studies, simulations, and structured debriefing would help students develop the metacognitive skills needed to transfer knowledge across contexts; time management training and clearer workload expectations would help students navigate professional temporal demands while maintaining academic commitments; and support should prioritize pedagogical and organizational readiness rather than technical preparation, since students appear to have adequate technical foundations.

4.3 Context Dimension: Curriculum Adjustment Needs and Inclusive Policy Implications

The Context dimension reveals strong consensus on the need for curriculum adjustment, particularly more intensive industry collaboration (M=4.79) and greater technical skills focus

(M=4.75), empirically supporting Rahman et al.'s (2023) argument that universities must build robust strategic partnerships rather than relying on classroom-based teaching alone. Students appear to seek more frequent industry engagement, curriculum co-development, and more structured placements, directly addressing the competency polarization identified in the Product dimension. The relatively lower endorsement for soft skills development (M=4.15) likely reflects a perception that non-technical competencies are already adequately developed, not a dismissal of their importance.

These findings carry important policy implications, particularly regarding the transition from MSIB to Magang Berdampak. While the new framework addresses some challenges through structured mentoring and quality standards, policy alone cannot solve competency polarization; effective WIL policy must be complemented by curriculum reform at the institutional level, focusing on integrating industry perspectives, developing advanced digital competencies, and creating equitable opportunities across diverse technical domains. This also relates to Kusumandyoko et al.'s (2025) observations about ideological dynamics: students are not resisting industry influence but actively seeking greater integration, recognizing the practical necessity of aligning competencies with industry demands for employability. However, curriculum designers must balance academic values (theoretical understanding, critical thinking) with industry values (practical execution, efficiency) to maintain the critical and creative dimensions of design education, and, from an inclusive perspective, this balance should also consider how to sustain academic rigour and creative expression while preparing students for successful employment across diverse ability levels.

4.4 Input Dimension: Placement Distribution and Access to Diverse Competency Development

The Input dimension reveals a marked concentration of MSIB placements in Graphic Design, with limited exposure to 3D Design, Game Development, and UI/UX, directly correlating with the Product dimension's competency polarization. This concentration reflects several factors: greater availability of established Graphic Design industry partners and internship arrangements, students self-selecting into fields where they feel confident, and curriculum constraints limiting eligibility for advanced digital placements.

From an inclusive education perspective, this concentration has concerning implications. Students who have disabilities, come from disadvantaged backgrounds, or have limited access to extracurricular learning opportunities may be particularly affected by the lack of exposure to advanced digital fields; if these competencies are not systematically taught in the curriculum and are not accessible through diverse placement options, students who require more structured learning support may be systematically excluded from emerging career pathways. The Input findings therefore have several practical implications: active development of industry partnerships in emerging digital fields should be a priority for institutional leadership and curriculum committees; ensuring equitable access to diverse placement opportunities requires proactive outreach and support for students from disadvantaged backgrounds; and curriculum preparation for advanced digital competencies regardless of placement availability would ensure that all students have foundational exposure to emerging fields. The Magang Berdampak framework's emphasis on quality standards provides a foundation, but targeted efforts are needed to expand partnerships beyond Graphic Design, particularly with companies in game development, UI/UX design, and 3D visualization.

4.5 Research Question Synthesis

In synthesis: (1) students developed substantially stronger non-technical (M=3.91) than technical competence (M=3.24), with the latter masking sharp polarization between strong traditional skills and weak advanced digital skills, and a moderate-to-strong correlation (r=0.64) indicating parallel development; (2) MSIB experiences tend to reinforce competencies already emphasized in the curriculum while providing limited exposure to underrepresented areas, as the programme does not consistently compensate for curriculum gaps given the concentration of Graphic Design placements; (3) the primary barriers students face are pedagogical and organizational, time management and theory-practice application, rather than technical or social, indicating that foundational digital literacy and social skills are adequate but structural aspects of professional work remain difficult; and (4) students most strongly endorse more intensive industry collaboration (M=4.79) and greater technical skills focus (M=4.75), with soft skills development still valued (M=4.15) but seen as a less urgent priority.

5. Conclusion

This study provides a comprehensive quantitative evaluation of Work-Integrated Learning in VCD education at Universitas Negeri Surabaya using the CIPP framework across Context, Input, Process, and Product dimensions. Findings reveal significant strengths in developing non-technical competencies (M=3.91) alongside critical gaps in technical skill development (M=3.24), most strikingly a sharp polarization between strong traditional design skills—Basic Design Theory (4.32), Digital Illustration (4.22), 2D Graphic Design (4.14)—and weak advanced digital competencies—3D Design (1.88), Game Development (2.11), UI/UX (2.59)—reflecting the regular curriculum's emphasis and limited exposure to emerging digital fields.

The Process dimension findings reveal that the most significant challenges students face are pedagogical and organizational rather than technical or social, particularly time management constraints and difficulty applying classroom theory to real projects, suggesting that students require explicit support to bridge the theory-practice gap and navigate the differing temporal structures of academic and professional environments. The Context dimension findings reveal strong student consensus on the need for curriculum adjustment, particularly for more intensive collaboration with industry partners and greater focus on technical skills development, providing a clear mandate for curriculum reorientation. The Input dimension findings reveal a marked concentration of MSIB placements in Graphic Design, limiting exposure to emerging digital fields and contributing to the observed competency polarization, a pattern that reflects the greater availability of established industry partners in that sector as much as student self-selection. From an inclusive education perspective, this concentration and the lack of systematic curriculum provision for advanced digital competencies may disproportionately affect students with disabilities or disadvantaged backgrounds, underscoring the need for universal design principles ensuring all students have opportunities to develop competencies across the full range of professional design fields (CAST, 2018).

5.1 Recommendations

Based on these findings, the following recommendations are offered for curriculum reform, WIL enhancement, and policy development:

Curriculum Reorientation toward Digital Competencies:

Integrate advanced digital competencies (3D Design, Game Development, UI/UX) into the core curriculum by introducing dedicated courses regardless of placement availability, so that all students gain foundational exposure to these fields rather than relying on chance internship assignments.

Adopt universal design principles in curriculum development, providing multiple means of engagement, representation, and expression to accommodate diverse learning needs, and establish structured learning sequences, prerequisite courses, and assessment frameworks that enable progressive competency development in emerging digital fields.

Strategic Industry Partnership Development:

Actively develop partnerships with game development studios, UI/UX agencies, 3D visualization companies, and interactive media firms to expand the range of placement opportunities available to students beyond the currently dominant Graphic Design track.

Establish formal agreements that specify competency outcomes and ensure quality experiences for all students, including provision for reasonable accommodations for students with disabilities, and create mechanisms for industry involvement in curriculum development through advisory boards, guest lectures, and collaborative curriculum design processes.

Policy and Governance Enhancement:

Develop inclusive WIL policies that ensure equitable access to diverse placement opportunities, including proactive outreach to students with disabilities and from disadvantaged backgrounds, and strengthen mechanisms for monitoring and evaluating WIL outcomes, including regular assessment of competency development, student satisfaction, and employer feedback across all placement fields.

Provide adequate resources for WIL program coordination, including dedicated staff, professional development for supervisors, and infrastructure to support partnership development and student support, ensuring that policy commitments at the Magang Berdampak level are matched by institutional capacity to implement them.

Process Improvement:

Develop structured preparation programs that help students bridge the theory-practice gap through case studies, simulations, reflective activities, and explicit teaching of knowledge-transfer strategies, alongside time management training and workload planning to help students navigate professional temporal demands while maintaining academic commitments.

Strengthen support systems for students during placements, including regular check-ins, mentoring, and clear mechanisms for addressing challenges as they arise, with particular attention to students who may require additional scaffolding to succeed in unfamiliar digital domains.

5.2 Limitations and Future Research

Methodological Limitations:

Several methodological limitations should be acknowledged. The small sample size (n=28) limits the generalizability of findings and statistical power for subgroup analyses, though the sample represents the total population of VCD students from this cohort. Self-report data may introduce social desirability bias, overestimation of competencies, or underreporting of challenges. The dominance of Graphic Design placements limits conclusions about other fields, as students placed in UI/UX, 3D Design, or Game Development were underrepresented. The cross-sectional design precludes causal claims about WIL's effects on competency development, and the single-institution, single-cohort scope limits generalizability to other Indonesian universities, programs, or international contexts.

Future Research Directions:

Future research should pursue larger-scale quantitative studies across multiple institutions to enhance generalizability and enable more robust subgroup analyses, alongside longitudinal research enabling causal inferences about WIL's effects and long-term career outcomes such as employment rates and job satisfaction. Mixed-methods research integrating qualitative perspectives would provide richer understanding of competency development processes and implementation challenges, while comparative research across WIL models (MSIB, Magang Berdampak, and traditional internships) could identify best practices and effective program components. Further avenues include research on industry-partner perspectives, evaluation of Magang Berdampak implementation effectiveness, studies of inclusive WIL practices for students with diverse learning needs, and objective competency assessment using portfolio reviews, performance tasks, and industry evaluations to complement self-report data.

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