

Qualitative Analysis of Instructional Design in Graduate Education: A Document Study of MAEd Syllabi

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Abstract:

This study analyzed the instructional design of syllabi across the Master of Arts in Education program of a private higher education institution in the Philippines. Through qualitative document analysis of 56 syllabi clustered into foundational, specialized, and thesis courses, the study explored how learning outcomes, instructional strategies, assessment methods, technology integration, and 21st-century competencies are articulated across the curriculum. Findings revealed strong alignment with outcomes-based education (OBE), the Philippine Qualifications Framework (PQF) Level 7 descriptors, and institutional graduate attributes. Each cluster demonstrated a clear emphasis on performance-based assessment, research-driven pedagogy, and digital fluency. The analysis also underscored the syllabus as a reflective and strategic academic tool—revealing institutional priorities, faculty pedagogical philosophies, and instructional coherence. The study recommends periodic syllabus audits, interdisciplinary mapping, and participatory design to further enhance the curriculum's responsiveness to emerging educational and societal needs.

Keywords: syllabus analysis, instructional design, outcomes-based education, graduate education, 21st-century skills, curriculum mapping, digital pedagogy

Introduction:

Instructional design in higher education is a dynamic and context-sensitive process, shaped by evolving pedagogical philosophies, policy mandates, and global education trends. As graduate education moves toward learner-centered, outcomes-based frameworks, course syllabi have become more than procedural tools—they now serve as blueprints of academic intent, reflecting how instructors conceptualize learning outcomes, align assessments, and apply educational innovations (Biggs & Tang, 2011; Harrington & Thomas, 2023). In many graduate programs across Southeast Asia, the increased emphasis on outcomes-based education has necessitated greater coherence among program goals, course-level competencies, and instructional methodologies (CHED, 2019; Lim & Apple, 2020).

In this light, the course syllabus functions as both a contract and a pedagogical map, articulating the learning experience envisioned by educators. It provides not only a framework for course delivery but also a lens through which instructional alignment and design philosophy can be assessed (Fink, 2003). However, despite the syllabus being a rich source of data on how instruction is planned and operationalized, there is limited research that systematically analyzes its content across disciplines and over time—especially in graduate programs outside the developed countries.

This study aims to address this gap by examining the instructional design characteristics embedded in graduate-level course syllabi from a private Catholic higher education institution in the Philippines. The institution, aligned with the Philippine Qualifications Framework Level 7 standards, offers a Master of Arts in Education (MAEd) program with specializations in English, Filipino, Mathematics, Science, Physical Education, and Instructional Technology. Over the past three academic years, the school has implemented an institution-wide curriculum based on CMO No. 15, s.

2019, embedding institutional graduate attributes (IGAs) and integrating 21st-century competencies across its syllabi.

The present study analyzes course syllabi from this institution to identify patterns in instructional planning, the use of student-centered methodologies, and the alignment of course outcomes with program outcomes and graduate attributes. It seeks to answer the question: How do faculty members design instruction, as reflected in their syllabi, in response to national academic standards and institutional goals? By examining the structures and pedagogies articulated in syllabi, the study contributes to the growing discourse on instructional quality assurance and curriculum design in postgraduate education, particularly in developing contexts.

Literature Review:

The course syllabus has evolved from a simple schedule of topics and assessments into a multidimensional pedagogical tool that communicates an instructor's educational philosophy, institutional expectations, and regulatory compliance (Germano & Nicholls, 2022). As higher education institutions adopt student-centered and competency-based models, the syllabus increasingly reflects efforts to align instructional strategies with national qualifications frameworks and global educational goals (Biryuk, 2022; Ozbek, 2020). In the Philippine context, this transformation is shaped by the implementation of the Philippine Qualifications Framework (PQF) and the Commission on Higher Education's Memorandum Order No. 15, series of 2019, which mandates the outcomes-based structuring of graduate programs.

Outcomes-Based Education reorients the focus of teaching from what instructors deliver to what learners are expected to demonstrate at the end of a course or program (Rao, 2020). In this paradigm, instructional design is expected to exhibit constructive alignment—the deliberate integration of learning outcomes, teaching strategies, and assessments (Biggs & Tang, 2011). Studies show that when courses are designed with clear, measurable outcomes that are aligned with program and institutional goals, students are more likely to develop critical thinking, autonomy, and deep learning habits (Kutash et al., 2009; Spady, 1993).

In Southeast Asia, research by Iloanya (2019) found that OBE implementation in teacher education programs led to more structured and purposeful lesson planning, though challenges in authentic assessment and differentiated instruction remain. Similarly, Wallace & Priestley (2016) observed that while faculty generally accept the shift toward OBE, many rely on outdated templates and miss opportunities to embed real-world applications and 21st-century skills into their instructional designs.

Recent scholarship has emphasized the value of syllabus analysis in curriculum evaluation and instructional research. The syllabus is often the first and most consistent interface between students and instructors, offering insights into how educators conceptualize their roles and responsibilities in facilitating learning (O'Brien et al., 2009). For example, Richmond et al. (2018) used content analysis of syllabi to explore the prevalence of learner-centered language and found significant variation across departments and academic ranks. Their study suggests that while institutional mandates influence course design, the actual instructional ethos is largely shaped by individual faculty interpretations of those mandates.

In the Philippine setting, Zhu & Zeichner (2013) examined how higher education syllabi in teacher training institutions reflect the integration of 21st-century skills, noting that while digital literacy and collaboration are frequently mentioned, they are rarely assessed directly. Another study by Oedekoven et al. (2019) identified a gap between intended learning outcomes and the kinds of assessments included in graduate syllabi, calling for improved faculty development programs on backward curriculum design.

Instructional coherence—the degree to which course outcomes, content, activities, and assessments are logically connected—remains a persistent challenge in graduate education (Wiggins & McTighe, 2005). In programs that span multiple disciplines, such as a Master of Arts in Education with specializations in English, Filipino, Science, Math, PE, and Instructional Technology, syllabi can reveal either integration or fragmentation of learning goals (Jacobs, 2004). Scholars argue that analyzing course syllabi across these fields can provide insights into how effectively interdisciplinary programs support graduate-level competencies, particularly in research, leadership, and innovation (Wallen et al., 2020; Killion et al., 2022).

While previous studies have explored how instructional design manifests in teacher education, few have systematically analyzed the contents of syllabi across multiple academic years and specializations to identify patterns of design practice. Moreover, existing research often focuses on undergraduate programs or large-scale institutional audits, leaving a gap in understanding how individual instructors in graduate settings operationalize OBE principles and institutional graduate attributes (Cater & O'Neill, 2021).

This study contributes to the literature by providing a cross-sectional and longitudinal analysis of syllabi in a Philippine graduate education context. It bridges instructional theory and curriculum implementation by identifying how learning

outcomes, pedagogical strategies, and assessments are represented in course designs across academic clusters. In doing so, it addresses both the micro-level dynamics of classroom design and the macro-level concerns of curriculum coherence and policy alignment.

Methodology:

This study employed a qualitative document analysis (QDA) approach to examine the instructional design embedded in graduate-level course syllabi. Document analysis is a recognized method in educational research for interpreting meaning, patterns, and structure from existing textual materials such as policies, handbooks, and syllabi. It offers insight into how institutions and instructors frame the teaching and learning process (Bowen, 2009). Unlike quantitative content analysis, QDA focuses on interpreting underlying intentions and pedagogical perspectives, making it ideal for analyzing complex instructional documents (Altheide & Schneider, 2013).

A total of 56 syllabi were collected from a private Catholic higher education institution in the Philippines. These syllabi spanned three academic years (2021–2022, 2022–2023, and 2023–2024) and represented courses from the Master of Arts in Education program. The program offers specializations in English Language and Literature, Filipino Language and Literature, Mathematics Education, General Science, Physical Education and Sports, and Instructional Technology. All syllabi were standardized instructional documents submitted by faculty members and approved by the graduate school. They were designed in compliance with CHED Memorandum Order No. 15, s. 2019 and aligned with the Philippine Qualifications Framework (Level 7).

The analytical framework for this study was guided by two foundational models in instructional design: Biggs and Tang's (2011) constructive alignment and Wiggins and McTighe's (2005) backward design. Using these as a basis, each syllabus was examined across several dimensions: course information and delivery mode; course learning outcomes (CLOs) and their alignment with program outcomes (POs) and institutional graduate attributes; weekly content sequencing; instructional strategies and learning activities; types and alignment of assessments; integration of 21st-century skills; and use of educational technology. These dimensions were used to build a structured coding matrix.

Data analysis proceeded in two cycles. In the first cycle, syllabi were read closely to extract descriptive content such as learning outcomes, instructional strategies, and assessment formats. In the second cycle, an inductive thematic coding process was used to identify patterns across disciplines and specializations (Saldana, 2021). This allowed the researcher to uncover underlying pedagogical orientations and instructional coherence or gaps. To enhance validity and trustworthiness, syllabi from similar courses (e.g., thesis writing, statistics, curriculum design) were compared across academic years and disciplines. Bloom's Taxonomy (Anderson & Krathwohl, 2001) was also used to assess the cognitive levels targeted by the learning outcomes and assessments.

Ethical considerations were observed throughout the study. All documents were institutional artifacts and did not include personal student data. Faculty names were anonymized during analysis to protect confidentiality. The research was conducted with the knowledge and consent of the institution's graduate school administration and complied with ethical standards for non-intrusive, document-based educational inquiry.

Findings:

The instructional design of the Master of Arts in Education program exhibits a cohesive architecture shaped by the principles of outcomes-based education, performance-based learning, and reflective, research-informed pedagogy. Despite the diversity in specialization tracks, a clear pattern emerges when the syllabi are grouped according to their dominant pedagogical orientations: research-intensive, practice-based, and design-driven.

Table 1. Thematic Coding Summary of Instructional Design Features in MAEd Syllabi with Course-Level Examples

Code/Theme	Definition	Indicators in Syllabi	Course-Level Examples
OBE Alignment	Learning outcomes are measurable and mapped to program goals/IGAs	CLO-PO mapping, references, IGA integration	PQF MAED 200 (CLO-PQF-PPST linkage); Thesis 2 (alignment with PO1-PO5)
21st-Century Skills	Integration of communication, collaboration, thinking, digital skills	Explicit listing or embedded tasks (e.g., PSA, critique writing)	TESL (collaborative activities, digital planning); IT 106 (gamified webinars)

Instructional Diversity	Use of varied pedagogical strategies appropriate to discipline	Lectures, flipped classroom, gamification, seminars, writeshops	MAED 202 (problem-solving); MAPE 204 (workshop planning); MAEL 208 (seminars)
Performance-Based Assessment	Assessments tied to authentic, real-world outputs	Portfolios, modules, defense, demo, lesson plans, outreach projects	MAEL 203 (research presentations); MAEDIT 208 (LMS projects); MATH 203 (module writing)
Research Integration	Research is a core learning activity, not just a final output	Critique papers, proposal writing, RRL synthesis, SIPs	MAEL 204 (conference paper); MAFIL 207 (publishable research); MAGS 207 (action research)
Technology Use	Deliberate integration of digital tools for learning, collaboration, or output	LMS, Google Suite, SPSS, Mendeley, Canva, YouTube	MAED 201 (Mendeley); MAEDIT 201 (Google Suite); MAGS 206 (video editing tools)
Values and Cultural Context	Inclusion of ethics, spirituality, identity, or engagement	Augustinian Tenets, Philippine national Literature, environmental civic ethics	MAED 203 (Augustinian outreach); MAEL 209 (cultural critique); MAGS 209 (Laudato Si reflection)

Research-Intensive Specializations

The English Language, Filipino Language, and General Science clusters strongly reflect a scholarly tradition grounded in academic inquiry, critical analysis, and knowledge generation. Courses across these clusters prioritize long-form writing tasks, literature reviews, and publishable research outputs, with many culminating in proposals or conference-ready papers. This design aligns with the PQF Level 7 descriptor emphasizing self-directed research and innovation. Instructional strategies in these specializations are seminar-oriented, collaborative, and critique-based—allowing students to engage with theory while constructing discipline-specific interpretations. For instance, *Theories and Principles in Literary Criticism* and *Panunuri ng Kontemporaryong Panitikang Filipino* emphasize academic publishing, while *Research Trends in Science Education* and *Pananaliksik at Kalakaran sa Filipino* promote conceptual rigor and research relevance. Across these courses, research is not a peripheral activity but a core instructional pathway—fostering habits of scholarly inquiry and critical reflection.

Practice-Based and Professionally-Oriented Tracks

By contrast, the Mathematics, Physical Education (PE), and Curriculum Foundation clusters are notably practice-based, oriented toward the application of disciplinary knowledge in authentic teaching and administrative settings. These syllabi are designed around performance tasks such as module writing, curriculum mapping, lesson demonstrations, and event planning—reflecting a strong alignment with Wiggins and McTighe's (2005) backward design and with Spady's (1993) OBE framework.

Instructional delivery in these clusters leverages real-world scenarios and experiential learning. For example, *Advanced Algebra and Plane and Spherical Trigonometry* require instructional material creation and pedagogical analysis, while *Curriculum and Supervision in PE* and *Organization of Intramural Sports* emphasize planning, execution, and reflection—mirroring professional practice. These clusters prioritize workplace-readiness, instructional innovation, and educational leadership, positioning graduates to lead in applied educational contexts.

Design-Centered and Technologically-Driven Learning

The Instructional Technology specialization represents a design-centric and digitally fluent approach, where students function as instructional architects producing technology-integrated materials, e-learning modules, and gamified webinars. Courses such as *Digital Portfolio Preparation*, *Instructional System Design*, and *Advanced Instructional Design Project* foreground creativity, design logic, and cross-platform communication. These reflect the institution's responsiveness to emerging educational modalities and digital transformation imperatives in higher education (Biryuk, 2022).

Assessment tasks in this cluster are tangible and iterative—requiring students to create usable content such as eBooks, animated presentations, and LMS-based lessons. The frequent use of tools like Canva, NEO LMS, Google Suite, and SPSS further highlights the program's commitment to digital pedagogy and future-ready education.

Integrative Role of the Thesis Courses

Serving as the program's academic culmination, the Thesis Writing sequence synthesizes all previously cultivated skills: research design, data analysis, ethical scholarship, and scholarly communication. Thesis Writing 1 scaffolds topic generation and proposal development, while Thesis Writing 2 emphasizes validation, statistical interpretation, and oral defense. Together, these courses not only assess research competence but also instill academic independence—aligning with the outcomes expected of postgraduate education (CHED, 2019; Rao, 2020).

Discussion:

The findings of this study affirm the potential of syllabus analysis as a method for understanding the instructional architecture of a graduate program, particularly in the context of outcomes-based education. Across clusters—ranging from foundational courses to discipline-specific specializations and thesis writing—the syllabi consistently reflect a learner-centered, performance-based, and future-responsive approach to instructional design. These observations resonate with Biggs and Tang's (2011) theory of constructive alignment, where course components (learning outcomes, instruction, and assessment) are deliberately aligned to promote meaningful learning.

The strong outcome articulation evident across all course clusters demonstrates the institution's adherence to the principles of OBE, as defined by Spady (1993) and expanded by Rao (2020). Learning outcomes were not only specific and measurable but scaffolded toward higher-order thinking skills following Anderson and Krathwohl's (2001) taxonomy. Whether in research-oriented English and Filipino courses, technology-driven instructional design classes, or problem-based science and math specializations, the syllabi reflect a clear trajectory toward analytical, creative, and applied graduate-level competencies aligned with PQF Level 7.

Additionally, the integration of 21st-century competencies was not merely declarative but operationalized through instructional strategies and assessment outputs. Gut (2010) emphasized that modern curricula must embed critical thinking, communication, collaboration, and digital fluency. In this study, these skills were consistently evident through student-created webinars, multimodal portfolios, research proposals, lesson plans, and LMS-enabled outputs—confirming the alignment of pedagogy with contemporary learning demands.

The diversity of instructional strategies used across clusters demonstrates that the program values differentiated approaches responsive to disciplinary needs and student profiles. This supports the proposition of Fink (2003) that significant learning occurs when instruction is adapted to context, content, and learner goals. English and Filipino courses favored critique writing and seminar-style discussions, while Math and Science leaned on computation, modeling, and tech-enabled analysis. Instructional Technology courses, meanwhile, featured hands-on simulations and collaborative digital projects—embodying what Biryuk (2022) refers to as digital transformation in higher education.

A particularly noteworthy pattern is the emphasis on authentic and performance-based assessments across the board. From outreach planning and gamified instructional designs to thesis defense presentations and module creation, students were evaluated not just on knowledge but on their ability to apply learning in real-world and professional contexts. This aligns with the recommendations of Wiggins and McTighe (2005) on backward design, wherein assessments mirror meaningful performance tasks linked to enduring understandings.

The integration of digital technologies as instructional enablers also emerged as a dominant theme. Tools like Google Suite, Mendeley, SPSS, Desmos, Canva, and LMS platforms were not add-ons but integral to content delivery, collaboration, and assessment. As highlighted by Bowen (2009) and Elfi and Syarif (2021), the effective use of such tools in syllabus design not only enhances learner engagement but also reflects institutional readiness for blended and flexible modalities—an imperative in post-pandemic education.

From a curriculum leadership perspective, the findings echo Jacobs' (2004) call for curriculum mapping as a reflective practice. The documented alignment between course-level outcomes, program-level standards, and graduate attributes suggests a deliberate mapping process—potentially a response to internal quality assurance and CHED compliance (Commission on Higher Education, 2019). This coherence also reflects an understanding of the hidden curriculum (Alsubaie, 2015)—in which values such as academic rigor, cultural sensitivity, and professional ethics are implicitly transmitted through syllabus structure and assessment design.

Moreover, the Thesis Writing courses demonstrate how capstone experiences can be designed not as isolated research tasks but as developmental processes that integrate research design, ethics, methodology, writing, and academic communication. This aligns with Harrington and Thomas' (2023) view of the syllabus as a motivational roadmap and with Germano and Nicholls' (2022) claim that the syllabus can be a transformative educational artifact. Finally, the clustering of findings underscores that instructional design in graduate education must be both standardized and adaptive—standardized in its commitment to institutional goals, assessment integrity, and graduate attributes, and adaptive in recognizing the disciplinary identities, technological affordances, and learner realities across specializations. As Cater and O'Neill (2021) argue, meaningful policy implementation in education is realized

not by uniformity but through responsive, embedded practices contextualized to institutional missions and learner needs.

Conclusion:

This study explored the instructional design characteristics of syllabi from a Master of Arts in Education program through a comprehensive document analysis approach. The results reveal a robust and reflective curriculum architecture marked by outcomes-based education, performance-based assessment, 21st-century skill integration, and digital pedagogy. Each course—whether foundational, specialized, or culminating in thesis writing—demonstrates clear alignment between course learning outcomes, instructional methods, assessment strategies, and institutional graduate attributes.

The analysis across eight clusters shows that the program not only fulfills the minimum requirements outlined in national policy documents such as CHED CMO No. 15 series of 2019 but also exceeds them by embedding research, cultural responsiveness, and digital innovation in its core pedagogical strategies. Faculty design learning experiences that are learner-centered, discipline-informed, and socially relevant—positioning graduates to become reflective practitioners, ethical leaders, and instructional innovators.

Importantly, the findings validate the power of the syllabus not merely as an administrative requirement but as a pedagogical blueprint. It is in the syllabus where institutional philosophy, academic standards, and instructional intent converge. As such, analyzing syllabi offers valuable insights into curricular coherence, instructional quality, and institutional identity.

In sum, the MAEd program's instructional design reflects both academic rigor and contextual sensitivity—anchored in critical inquiry, collaborative learning, and technological fluency. It affirms the potential of graduate education not just to disseminate knowledge but to cultivate transformative educators equipped to respond to the complexities of 21st-century learning.

Recommendations:

The results of this study underscore the potential of syllabi not only as instructional roadmaps but as strategic documents that reflect institutional priorities, faculty design choices, and curriculum responsiveness. In light of these findings, several recommendations are proposed to enhance curriculum quality and instructional coherence in graduate education.

First, institutions should consider institutionalizing regular syllabus audits as part of their internal quality assurance processes. This will ensure continuous alignment of course outcomes with institutional graduate attributes, program-level goals, and national standards such as the CHED CMO No. 15 series of 2019. Syllabus audits can also serve as a reflective tool for faculty to revise learning outcomes, redesign assessments, and update instructional strategies in response to emerging educational trends.

Second, there is a need to strengthen interdisciplinary curriculum mapping to maximize the coherence and integration across clusters. While each specialization demonstrates instructional integrity, mapping common competencies—such as research writing, digital pedagogy, or curriculum design—across different courses (e.g., linking Educational Statistics to Thesis Writing or Instructional Technology to PE and Science Education) can lead to deeper learning and scaffolded competency development. Such cross-cluster integration aligns with the principle of constructive alignment (Biggs & Tang, 2011) and can foster transdisciplinary problem-solving among graduate students.

Faculty development should also include sustained training on digital assessment tools and learning analytics. As courses increasingly rely on platforms such as Google Suite, SPSS, and LMS environments, instructors must be equipped not only to use these tools but to integrate them meaningfully into pedagogical design. Training in project-based assessment, gamification, and collaborative learning tools can enhance engagement and make learning more relevant to the digital economy (Biryuk, 2022).

Moreover, the study encourages exploring collaborative syllabus design, wherein students participate in shaping aspects of the course—such as choosing topics, proposing formats for assessment, or co-developing class policies. This participatory approach has been shown to increase motivation and accountability (Harrington & Thomas, 2023), and it aligns with student-centered learning philosophies that emphasize agency and partnership in the educational process.

Additionally, syllabi should be further leveraged as tools for policy communication and institutional branding. Beyond technical details, syllabi should explicitly articulate the institution's mission, core values, and vision for graduate education. As Germano and Nicholls (2022) argue, the syllabus is a cultural artifact that conveys what an institution

values in teaching and learning—thus its careful crafting should be part of broader academic communications strategy.

Finally, future research should explore the implementation fidelity of syllabi in actual classroom practice. While this study focused on syllabus design, it would be valuable to examine whether the instructional intentions outlined in the syllabi are consistently enacted during teaching. Ethnographic methods, classroom observations, and student feedback would offer richer insights into how instructional design translates into learning experience.

In sum, by treating syllabi as dynamic pedagogical tools and institutional artifacts, graduate schools can foster reflective practice, curricular coherence, and instructional innovation—preparing educators who are not only skilled in content and pedagogy, but also responsive to the evolving demands of education in the 21st century.

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