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Reframing Curriculum as a Service: A Service Design Approach to Analyzing a Flexible Learning Program

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Abstract: As universities around the world adopt flexible and hybrid learning, there is a growing need to improve how curricula are designed. A common problem is that while teaching delivery becomes more flexible with technology, the underlying curriculum design often remains rigid, leading to a fragmented student experience. This paper uses a service design framework to analyze a flexible curriculum of the Communication Arts and Digital Media program at Ramkhamhaeng University in Thailand, using its official curriculum plan (TQF 2) and annual outcome reports (TQF 7) as a case study. The findings identify a "Guidance Gap" between the need for student support and the system's focus on independence, and a "Holistic Skills-Assessment Gap" between the practical skills taught and the final exam used for assessment. This research contributes a practical framework for using service design to diagnose these experience-based problems and offers design principles for creating more holistic and student-centered flexible curricula.

Keywords: Service Design, Curriculum Development, Flexible Learning, Higher Education, Thai Qualifications Framework (TQF)

Introduction

In 2025, higher education is going through a time of major change, caused by many different global trends happening at once. These trends mean that universities can no longer change slowly. Instead, institutions face growing pressure from new student expectations, changes in population, and different demands from the workforce, which makes it necessary for them to adopt flexible and hybrid curriculum models (EDUCAUSE, 2025). The main goal of this change is to create more inclusive learning environments to attract and keep a wider variety of students. This includes "traditional" students and "non-traditional" students, such as people who are working, have families to care for, or live far away. This means offering adaptable learning options that respond to what individual students need, giving them more choice over what, how, where, and when they study education (Jonker et al., 2020)

An important part of this change is the idea of flexible learning. It is now more than just a teaching method; it is a wider educational belief that gives students more control and independence. The main goal of flexible learning is to give learners autonomy over when, where, and how they learn (Brekke et al., 2024). This approach is seen as very important for making higher education fairer and more open, allowing all learners to access, progress through, and complete their studies. Because of this, educational policies from organizations around the world now recognize flexible learning as a basic principle for a complete education that prepares students for the future.

Central to this evolution is the concept of Flexible Learning, which extends beyond mere delivery methods to represent a broader educational philosophy aimed at providing learners with autonomy over when, where, and how they learn. This approach is increasingly viewed as essential for addressing equity challenges and widening access for diverse student populations, including working students and those with caring responsibilities (Brekke et al., 2024). Policy frameworks from global bodies now position curriculum flexibility as a foundational principle for future-oriented education. However, a critical

"design gap" persists between policy and practice; while institutions have widely adopted flexible delivery technologies, the underlying curriculum design often remains tethered to rigid, standardized models that can lead to fragmented learning experiences (OECD, 2024). In response to these challenges, leading Thai institutions have begun implementing flexible programs that emphasize modularity, stackable credentials like micro-credentials, and interdisciplinary learning, reflecting significant progress in this area (Kajusri, 2022).

Despite this progress, recent studies of flexible education initiatives in Thailand reveal persistent challenges in achieving a seamless and holistically integrated student experience, often due to a lack of continuity and the persistence of institutional silos (Kajusri, 2022). A primary reason is that curriculum development in the Thai context continues to be fundamentally shaped by conventional frameworks. Specifically, program design is governed by the Thai Qualifications Framework (TQF) (Thongprayoon, 2015), and, increasingly in the last five years, by the principles of Outcome-Based Education (OBE), which is typically implemented through Backward Curriculum Design (Sangngam, 2022). Furthermore, many programs are now developed to meet the quality assurance standards of the ASEAN University Network (AUN-QA) (AUN-QA, 2020). These frameworks rightly emphasize critical components such as clearly defined learning outcomes, competency-based progression, and the alignment of teaching and assessment methods (AUN-QA, 2020; Sangngam, 2022). However, their heavy focus on standardization and measurable outcomes can inadvertently reinforce a transactional mode of education, where the lived, moment-to-moment experience of the student journey remains an unmapped and undermanaged aspect of the curriculum (Thongprayoon, 2015).

As a result, curricula often reinforce a transactional logic that centers on delivery and assessment rather than a holistic, student-centered journey (Bearman et al., 2020; Wang, 2024). This reveals a persistent design gap: while educational delivery becomes more flexible and hybrid, the underlying curriculum logic often fails to evolve in tandem. To address this design gap, this study proposes applying Service Design as an analytical and generative framework for curriculum reform. Grounded in customer experience and systems thinking, service design offers tools to reframe curriculum as a holistic, user-centered service that spans multiple touchpoints and stakeholders (Stickdorn & Schneider, 2012; Tangney et al., 2025). Techniques such as journey mapping, co-creation, and service blueprinting align well with the non-linear, dynamic experiences of learners navigating hybrid ecosystems.

The study applies this framework to the 'Market of Subjects' program at Ramkhamhaeng University—a long-standing, open-admission model known for its flexibility and accessibility (Ramkhamhaeng University, n.d.). While the program has successfully expanded access to higher education, its curriculum architecture was not designed with modern service principles in mind. As such, recent research indicates that it presents structural limitations in learner support and the quality of educational services (Sakcharoen et al., 2023). These challenges directly impact the student experience and motivational factors for achievement (Sakcharoen, 2022). This legacy model, therefore, offers an ideal test case for retroactively applying service design to reimagine curriculum development in a more student-centered and adaptable form.

Ultimately, this paper seeks to contribute a new lens for evaluating and designing flexible curricula—one that aligns the policy ambitions of flexible learning with the practical realities of the learner experience. By integrating service design into curriculum thinking, it aims to support the next generation of higher education programs that address not only what students learn, but also how, when, and through whom they experience their education.

1. Literature Review

1.1 *The State of Flexible Learning in Thai Higher Education*

The push for flexible learning is a key part of Thailand's educational development, as the country aims to meet the needs of a more diverse society and a changing economy. In recent years, several leading Thai universities have started to offer more flexible programs. A key study by Kajusri (2022) on several major universities found that this includes offering non-degree programs, using online platforms for teaching, and creating options for students to get "micro-credentials" that can be stacked together. These universities have shown progress by creating new guidelines and support systems to manage these

flexible options, showing a clear move toward more modern, student-responsive education (Kajusri, 2022).

However, a deeper look shows that putting these ideas into practice is not simple. The main system for ensuring quality in Thai higher education is the Thai Qualifications Framework (TQF), which sets the standards for all curricula. While the TQF is important for quality, it also presents challenges for new types of education, especially in distance or flexible programs where the focus on strict standards can be a barrier to innovation (Thongprayoon, 2015). To meet TQF standards, most universities have also adopted Outcome-Based Education (OBE) as the main way to design courses. This approach, often using Backward Design, focuses heavily on making sure that assessments match the planned learning outcomes (Sangngam, 2022). Case studies from Thai universities show that while OBE is the goal, implementing it is a difficult process that presents many challenges for faculty and program designers (Sakcharoen, 2022; Thepsaeng et al., 2023).

This situation creates a tension. On one hand, universities want to be flexible. On the other hand, they must follow the rigid rules of frameworks like TQF and OBE. The research by Kajusri (2022) found that this tension can lead to real problems, such as different departments not working together (working in "silos") and a lack of a clear, shared understanding of what "flexibility" really means across an institution. Within this context, Ramkhamhaeng University is a unique case because of its long history with a flexible "Market of Subjects" model. Yet even at this pioneering institution, studies show that there are ongoing challenges related to the quality of educational services and student support, which affect student motivation (Sakcharoen, 2022; Sakcharoen et al., 2023). These persistent challenges across different types of Thai universities show that a new way of looking at curriculum design is needed—one that focuses on the complete student journey from beginning to end.

1.2 *Reframing Curriculum Development: A Service Design Perspective*

The challenges in Thailand's flexible learning systems show a clear need for a new way to think about creating and managing curricula. The traditional focus on quality frameworks like TQF and OBE is important for setting standards, but it often does not fully address the complete, lived experience of the student. To solve this "design gap," this paper suggests using the principles of Service Design. This approach offers a powerful way to reframe a curriculum, looking at it not just as a set of courses, but as a complete, end-to-end service that students experience over time.

Service Design is a practical and creative approach used to improve existing services or create new ones, with the main goal of making them more useful, easy to use, and desirable from the user's point of view (Stickdorn & Schneider, 2012). It is a holistic method that considers every part of a service. The core principles of Service Design are especially useful for education. It is student-centered, meaning it starts with understanding the student's needs and problems. It is also co-creative, suggesting that students, teachers, and staff should be involved in the design process. Finally, it is holistic, meaning it looks at the entire educational ecosystem, including both the "frontstage" parts students see and the "backstage" processes that the university manages (Tangney et al., 2025).

To analyze a curriculum as a service, two key tools are very helpful: the Student Journey Map and the Service Blueprint. A Student Journey Map is a visual representation of a student's entire experience over time, helping to identify all the different touchpoints, or points of interaction, a student has with the university. By mapping this journey, it becomes easier to find "pain points"—the moments where students feel confused, stressed, or unsupported (Stickdorn et al., 2018). The Service Blueprint is a more detailed map that not only shows the student's journey but also connects it to the backstage actions and support systems of the university. This is very important because it can show how a problem that a student experiences is caused by an internal university system, helping to find the real root of the problem (Stickdorn et al., 2018).

Using design-based approaches to improve education is a growing and credible field. For example, recent studies show that Design Thinking, a closely related concept, is being used to innovate curricula in other fields, such as social work education, to create more creative and student-focused learning experiences (Martin et al., 2024). More specifically, Service Design is now being applied in higher education to improve services for inclusion and accessibility, showing that it is a valuable tool for supporting diverse student populations (Panda, 2023). By focusing on the complete learning experience, this approach helps universities build a more supportive and effective environment for all students.

2. Methodology

This study uses a qualitative research approach, specifically a single case study that focuses on document analysis. The case chosen for this in-depth study is the Bachelor of Communication Arts and Digital Media program at Ramkhamhaeng University. This program is a good choice because it is a well-known example of a flexible learning model in Thailand and was created using standard frameworks like TQF and OBE, not Service Design. The data for this analysis comes from official documents: the program's TQF 2 specifications, launched in 2022, and the three annual TQF 7 outcome reports from the academic years 2022, 2023, and 2024. The analysis was guided by the principles of Service Design. First, the TQF 2 document was used as the "service blueprint" to understand the curriculum's intended plan and student journey. Next, the three TQF 7 reports were analyzed as "user evidence" to find patterns and identify real-world challenges or "pain points" that student experienced. Finally, a gap analysis was performed to compare the intended plan (from TQF 2) with the actual experience (from TQF 7), which allowed for a clear diagnosis of the curriculum's strengths and weaknesses. It is important to note the authors' position as insiders who have worked as a program chair and committee member for this curriculum. This position provides a deep understanding of the context, but to ensure objectivity, the analysis was based strictly on the textual evidence within the TQF documents, without including personal opinions or experiences.

3. Findings

The analysis of the official curriculum documents, guided by a Service Design framework, reveals the difference between the program's intended design and what stakeholders experienced. The findings are presented in three parts: the intended student journey as described in the TQF 2 "blueprint," the experienced journey based on evidence from the TQF 7 reports, and the identified gaps between the plan and the reality.

3.1 *The Intended Student Journey: The Blueprint from TQF 2*

The official TQF 2 document states that the curriculum is designed to produce graduates with a strong ethical foundation as well as professional skills in communication and digital media. To achieve this, the 90 credits for Major Courses are organized into three main thematic groups. The journey begins with "Concepts and Theories in Communication Arts and Digital Media" to provide foundational knowledge, then moves to the "Principle of Practices and Skills for Communication Arts" to develop practical abilities. The final core group is "Media Management and Entrepreneurship," which helps students build business skills for the media industry.

This structure is designed to guide students from foundational knowledge to professional specialization over four years. Year 1 (CDM1XXX) focuses on building a strong theoretical base with courses like Introduction to Communication Arts and Digital Media (CDM1101) and Theories of Communication (CDM1102). Year 2 (CDM2XXX) then shifts toward developing essential practical skills in courses like Principles of Photography for Communication (CDM2304). In Year 3 (CDM3XXX), students specialize through major electives, including those related to media management. Finally, Year 4 (CDM4XXX) focuses on applying knowledge in real-world contexts and prepares students for the workplace with specialized courses and optional capstone experiences, such as a professional internship or a final project.

A central feature described in the plan is the university's 'Market of Subjects' teaching style, which is defined as a model that "has classes but also allows for self-study" and is applied to all courses. While the course codes suggest a year-by-year pathway, this model gives students a high degree of freedom and does not require them to follow a mandatory sequence. The coding system serves as a "soft guide," placing the responsibility on the student's own initiative to follow the intended academic progression. Reflecting this model, important professional development courses like internships and projects are offered as optional electives, treating these valuable hands-on learning opportunities like any other

course in the system. The assessment strategy supports this self-directed model by prioritizing the final examination as the primary measure of achievement in the Major Courses.

3.2 *The Experienced Journey: Evidence from TQF 7 Reports*

While the TQF 2 document shows the intended plan, the annual TQF 7 reports provide direct evidence of the actual stakeholder experience from 2022 to 2025. The data reveals consistent patterns of specific successes ("Gain Points") and ongoing challenges ("Pain Points") in the student journey, especially related to support and communication. Table 1 provides a comprehensive summary of these recurring themes found within the reports.

Table 1
Comprehensive Summary of Stakeholder Experience Themes from TQF 7 Reports (2022-2025)

Finding Category	Report 2022-2023	Report 2023-2024	Report 2024-2025
Pain Point: Communication & Guidance	The student survey summary showed a "need for more channels to communicate with instructors" outside of normal class time.	The report highlighted a student request for "more structured guidance for self-study," particularly in the fully online courses.	The committee's own review noted that "providing timely and detailed feedback remains a challenge" in classes with many students.
Pain Point: Journey Navigation & Pacing	The report mentioned that some first-year students "struggled with time management" in a system focused on a final exam.	Student feedback noted difficulty connecting abstract theories in early courses to the practical skills taught later in the program.	Instructor feedback noted that students were often "not consistently engaged with the material until the final exam period".
Gain Point: Practical Skill Development	Graduate feedback was very positive about skills in "digital video production and graphic design".	Employer surveys showed that graduates have "strong and up-to-date digital tool competencies" valued by the industry.	The report noted the success of the final year professional project in preparing students for their future careers.
Observation: Digital Touchpoint Quality	The quality of digital learning tools was not a major theme in this report's feedback summary.	The report mentioned a need to "improve the organization of materials on the e-learning platform" to make them easier for students to find.	A recommendation was made to "regularly update the program website" to ensure information is current for students.

As the table shows, a key pain point that appears over the three years is the need for better communication and support. The TQF 7 report from 2024 summarized this by stating a key area for improvement was to "develop additional support mechanisms for self-directed learning to ensure all students can keep pace with the curriculum". In contrast, the curriculum's success in teaching practical skills is a clear gain point. A direct quote from the employer feedback section of the 2023 report said that graduates are "well-prepared and possess strong digital media skills that are relevant to the industry".

3.3 *Identified Gaps: Insights from a Service Design Perspective*

Comparing the intended blueprint (TQF 2) with the experienced journey (TQF 7) through a Service Design lens reveals two significant gaps in the educational service:

- The Guidance Gap: There is a clear disconnect between the curriculum's intended design for independent, self-directed learning and the students' experienced need for more structured guidance, communication, and support touchpoints throughout their journey.
- The Holistic Skills-Assessment Gap: There is a contradiction between the curriculum's holistic goals (the five PLOs, which include cognitive skills, interpersonal skills, and practical application) and an assessment system that heavily prioritizes a final examination. This method is effective at measuring knowledge (PLO 2), but the TQF 7 reports suggest it is less effective at capturing the development of the other critical skills the program aims to build.

4. Discussion

This study used a Service Design lens to analyze the university's curriculum. The findings show a clear difference between the program's official plan and what students experience. This discussion explains what these findings mean, using the provided literature to understand the role of digital technology and communication in the student journey.

4.1 *The Guidance Gap as a Digital Service Problem*

The findings showed a "Guidance Gap," where students in a system designed for independent learning asked for more support and communication (Kajusri, 2022). From a Service Design point of view, this is a problem with the service's digital touchpoints. For students at Ramkhamhaeng University, the main touchpoints are digital, such as the e-learning system and the university website. Research on the university's service quality has shown that students feel these specific digital platforms are an area that needs improvement (Sakcharoen, 2022). Service Design, particularly with its recent focus on a systemic approach, teaches that a successful service requires well-integrated 'backstage' processes (like faculty support systems) to create a coherent 'frontstage' experience for the student (Tangney et al., 2025). The evidence suggests that the university's digital touchpoints are not yet effective enough to close the guidance gap for students in this flexible model.

4.2 *The Skills-Assessment Gap and the Student Journey*

The second major finding was the "Holistic Skills-Assessment Gap." The curriculum plan aims to develop a wide range of skills, including practical and interpersonal ones. However, the assessment system relies heavily on a final exam. Service Design sees this as a problem in the Student Journey Map because the final touchpoint (the test) does not fully measure the journey's goals (the holistic skills) (Stickdorn et al., 2018). This is a common challenge in flexible education, where old assessment methods often do not fit with modern learning goals (Jonker et al., 2020). This mismatch can create confusion and stress for students, as the way they are tested does not reflect everything they were supposed to learn.

4.3 *A Holistic View: Balancing Technology with Human Connection*

A key idea in Service Design is to look at the whole system in a holistic way (Stickdorn et al., 2018). The problems found are not just for students; they also affect teachers, who reported that giving feedback in large classes is difficult, as mentioned in the 2023 course performance report (TQF 7). This shows that the current system also creates a "pain point" for instructors. Research on flexible learning often shows that teachers need strong support to succeed in these new environments (Jonker et al., 2020; Tangney et al., 2025).

In addition, research on Ramkhamhaeng students shows that their motivation to succeed is strongly connected to human factors, such as their relationship with instructors (Sakcharoen et al., 2023). This creates a key challenge for the university: students need human connection, but the system is designed for many students using digital tools. A holistic Service Design approach helps to balance these needs. It encourages us to ask how digital technology can be used not to replace teachers, but to make

communication easier and more effective, which can strengthen the human connection that is so important for student success.

5. Conclusion

This study used a service design framework to analyze a flexible university curriculum. The research identified key problems in the student experience and showed how a new approach can help find solutions. This final section summarizes the research, explains its main contributions, and offers recommendations for both the specific case study and for other universities developing flexible programs.

5.1 Summary of the Research

This paper addressed the "design gap" in higher education, where the use of flexible teaching technology is growing faster than the design of the curricula that support it. Using Ramkhamhaeng University's Communication Arts program as a case study, this research analyzed official TQF documents through a Service Design lens. The analysis of this long-established flexible program revealed two critical issues:

A Guidance Gap, where students require more structured support than the current independent learning model provides.

A Holistic Skills-Assessment Gap, where final exams inadequately measure the practical competencies the program aims to instill.

5.2 Key Contributions of the Study

This research offers two primary contributions to the field of curriculum development:

Methodological Contribution: The study demonstrates how service design can be used as a practical diagnostic tool to analyze existing curricula. This provides universities with a student-centered approach to identify gaps that traditional frameworks like TQF and OBE may overlook.

Practical Contribution: Through a real-world analysis of a flexible learning program, the research provides insights into the common challenges of student support, engagement, and assessment; challenges that are relevant to institutions developing flexible or hybrid models.

6. Recommendations

Based on the study's findings, the following recommendations are proposed. These are aligned with the concept of creating customizable "learning packages" to support student autonomy and engagement.

6.1 Specific Recommendations for the Case Study Program

Redesign Digital Support Touchpoints: The university should improve its key digital touchpoints, such as the e-learning platform and program website. These should be redesigned to provide more proactive student support, clearer guidance for self-study, and more channels for easy communication with instructors.

Develop "Multi-Sequence" Learning Packages: For each course, especially practical ones, the program could create a "learning package" of materials (e.g., recorded lectures, online exercises, readings, case studies). This would allow students to choose and customize the resources that best fit their learning style, giving them more control over how they learn, not just when.

Pilot Alternative Assessments: To close the Skills-Assessment Gap, the program should pilot alternative assessments for skill-based courses. This could include project-based assessments, e-portfolios, or practical demonstrations that could supplement or, in some cases, replace the high-stakes final exam.

6.2 Generalizable Design Principles for Flexible Curricula

Principle 1: Design the Holistic Journey, Not Just the Courses. Universities must map and design the entire student journey, including all academic, digital, and administrative touchpoints. A student's

experience is shaped by everything from course content to IT support, and a good curriculum plan must consider all these parts together (Tangney et al., 2025).

Principle 2: Align Backstage Processes with the Frontstage Promise. The internal university systems, faculty support, and administrative rules (the backstage) must be designed to enable the flexible, supportive student experience promised frontstage. If the backstage is rigid, the student experience will be fragmented (Stickdorn et al., 2018).

Principle 3: Build for Agency with Scaffolding. While the goal of flexible learning is to promote student independence (agency), curricula must include structured support and guidance (scaffolding) to help students develop the self-regulation skills they need to succeed (Jonker et al., 2020).

6.3 A Proposed Process for Implementation: The Double Diamond Guideline

To put these principles into practice, this study proposes a general guideline for curriculum review, adapted from the widely recognized Double Diamond design process model (Design Council, 2015). Figure 1 visualizes this four-phase process, adapting it specifically for the context of curriculum development. The process guides curriculum designers from the Discover phase, where they research the gap between the planned curriculum and the actual student learning journey, to the Define phase, where the core pedagogical and experiential problems are clearly identified. It then moves to the Develop phase, where new instructional strategies and support systems are co-created with students and faculty, and concludes with the Deliver phase, where these new curriculum components are piloted, tested, and refined for implementation. This model provides a structured path for transforming a standard curriculum into a dynamic, student-centered learning experience.

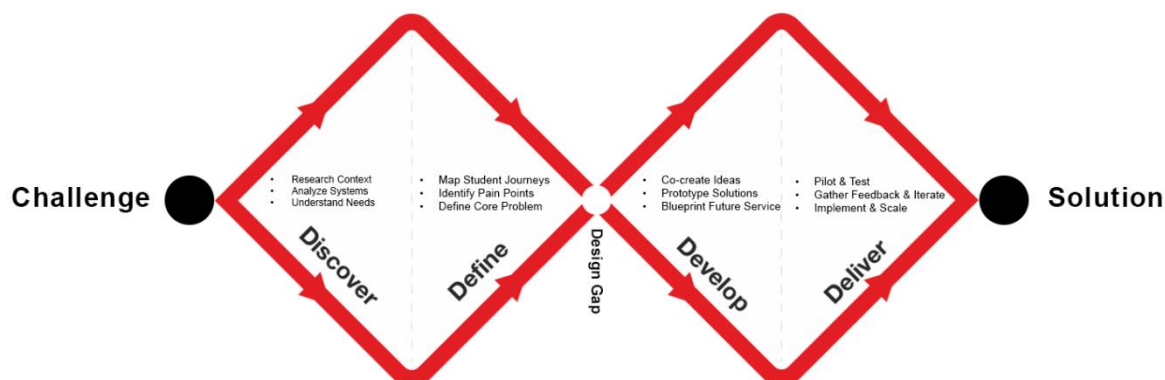


Figure 1. A Proposed Service Design Process for Curriculum Review

6.4 Limitations and Future Research

This study has limitations. It focused on a single case, which may limit generalizability. Moreover, it relied solely on document analysis, without incorporating direct input from students or faculty.

Future research should apply the service design framework to a wider range of institutions to test its broader relevance. Additionally, including interviews and co-creation workshops with stakeholders could generate deeper insights and lead to more effective, student-centered solutions.

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