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THE INFLUENCE OF DIFFERENT LEARNING DELIVERY MODALITIES ON THE ACADEMIC READINESS OF ELEMENTARY PUPILS OF A PRIVATE CATHOLIC SCHOOL IN MANILA

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ABSTRACT

Driven by the evolution of educational technology and recent global disruptions, learning delivery modalities (LDMs) have expanded to include face-to-face, online, blended, and modular learning. This study evaluated how these modalities influence the academic readiness of upper elementary pupils (Grades 4 to 6) in a private Catholic school in Manila, while examining demographic factors and stakeholder perspectives to inform an action plan that addresses implementation challenges. A convergent parallel mixed-methods design was employed. Ninety pupil-respondents completed a four-point Likert-scale survey of academic readiness, and semi-structured interviews and focus group discussions were conducted with pupils and teachers. Quantitative data were processed using weighted means, standard deviations, and a single-factor analysis of variance (ANOVA) tested at the 0.05 level of significance. The general weighted mean was 3.22 (SD = 0.82), verbally interpreted as "Sometimes Ready" across modalities. Pupils showed the highest readiness in blended and face-to-face learning because of direct teacher interaction and structured environments, with blended learning emerging as the most consistently favorable modality. Online and modular formats received lower ratings because of connectivity problems, self-study limitations, lack of direct teacher explanation, and inconsistent home support, despite strong device literacy among pupils. Grade 6 pupils reported higher descriptive readiness than Grade 4 pupils, but the one-way ANOVA showed no statistically significant difference across grade levels (F = 1.8943, p = 0.1622). Teachers and pupils identified technological gaps, weak self-regulation, intensive preparation of self-learning modules, and assessment-integrity issues as the primary challenges. Face-to-face and blended formats provided the most supportive learning environments. Administrators are encouraged to prioritize blended learning, invest in digital infrastructure and teacher training, and implement targeted interventions and parental support to strengthen pupils' self-directed study habits.

Keywords: *Learning Delivery Modalities (LDMs); Academic Readiness; Upper Elementary Pupils; Blended Learning; Face-to-Face Learning; Online Learning; Modular Learning; Mixed-Methods Research; Basic Education; Private Catholic School*

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INTRODUCTION

Background of the Study

Education has evolved significantly over the years, and learning delivery modalities have expanded to meet the needs of diverse learners. Learning delivery modalities refer to the methods and approaches used to facilitate learning, including face-to-face instruction, online learning, blended learning, and hybrid models (Means et al., 2013). These modalities play a crucial role in ensuring that learners receive instruction in ways that align with their preferences, abilities, and circumstances.

The terms *learning delivery modality* and *learning modality* are sometimes used interchangeably but are not the same. A learning delivery modality is the way that teachers and schools deliver lessons, that is, the structures, strategies, and platforms through which teaching and learning occur. A learning modality, by contrast, usually refers to the learner's preferred way of learning, such as visual, auditory, or kinesthetic styles. The former concerns teaching systems; the latter concerns how the learner thinks and feels (Felder & Brent, 2016). Distinguishing the two underscores the need to align instructional delivery with learners' requirements. Delivery methods should therefore support different ways of learning; for instance, blended environments can combine visual presentations, interactive activities, and group discussions that serve different types of learners (Garrison & Vaughan, 2008). Such modalities became even more important in times of disruption, such as the COVID-19 pandemic, when schools had to move from classroom-based instruction to more flexible learning environments (Bozkurt & Sharma, 2020).

Traditionally, face-to-face instruction has been the dominant modality. It involves direct interaction between instructors and students in a physical classroom and allows immediate feedback, dynamic discussion, and hands-on experiences that are essential for certain subjects and skills (Bonk & Graham, 2012). However, the model can be limited by geographical, financial, and time constraints.

With advances in technology, online learning has gained popularity as an alternative to, and supplement for, traditional education. Online learning, also known as e-learning, allows students to access instructional content and interact with instructors and peers through digital platforms (Moore et al., 2011). It offers flexibility, enabling learners to study at their own pace and from various locations, but digital literacy, access to technology, and self-discipline must be considered.

Blended learning combines face-to-face instruction with online components. It maximizes the benefits of both modalities by allowing in-person discussion alongside online resources for self-paced learning (Graham, 2006), and it has been shown to improve engagement, learning outcomes, and retention when implemented effectively (Means et al., 2013). Hybrid learning is often confused with blended learning; although both integrate online and face-to-face instruction, hybrid learning typically replaces a significant portion of in-person sessions with online coursework (Hrastinski, 2019). This model provides flexibility while maintaining essential classroom interaction, making it well suited to adult learners and working professionals.

Delivery modalities can also be classified by timing. Synchronous learning involves real-time interaction between students and instructors in traditional classrooms, live online sessions, or virtual classrooms (Hrastinski, 2008); it fosters immediate feedback and collaboration but requires adherence to a set schedule. Asynchronous learning allows students to access materials and complete assignments at their own pace without real-time interaction (Means et al., 2013); it benefits learners with busy schedules or in different time zones but demands strong self-motivation and time management. Competency-based learning focuses on learners achieving specific competencies rather than progressing through a fixed schedule; it is often used in online and blended environments, allowing students to advance on mastery rather than time spent in class (Pane et al., 2017).

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The choice of modality depends on subject matter, learner preferences, and institutional resources. Hands-on disciplines such as medical training and engineering often require face-to-face or hybrid modalities to incorporate practical experience (Bonk & Graham, 2012), whereas theoretical subjects can be delivered effectively online or asynchronously. The COVID-19 pandemic accelerated the worldwide adoption of digital modalities as schools and universities moved quickly to online and hybrid models to ensure continuity of learning (Dhawan, 2020), highlighting the importance of technological infrastructure, digital literacy, and instructional design.

Modalities are also shaped by educational theory. Constructivist learning emphasizes active engagement and collaboration, which makes blended and face-to-face learning more effective (Vygotsky, 1978), whereas behaviorist approaches built on repetition and reinforcement can be implemented effectively through self-paced e-learning modules. Accessibility plays a crucial role in educational equity: online learning expands access globally, yet disparities in internet access and digital literacy create barriers for some learners (UNESCO, 2020), and institutions must consider these when designing inclusive learning experiences. Emerging technologies such as artificial intelligence, virtual reality, and adaptive learning systems offer personalized experiences, real-time feedback, and immersive environments that can enhance engagement and comprehension (Selwyn, 2019).

Ultimately, the effectiveness of a delivery modality depends on its alignment with learning objectives, learner needs, and available resources, and a well-designed learning experience should integrate multiple modalities to accommodate diverse learners and optimize outcomes. As education continues to evolve, educators and institutions must remain adaptable and open to innovative delivery methods. In this light, this study sought to ascertain the influence of learning delivery modalities on the academic readiness of elementary pupils of a private Catholic school in Manila.

Review of Related Literature

Learning delivery modalities have evolved significantly with advances in technology and pedagogy. Face-to-face, blended, online, and modular models have been examined for their effectiveness in diverse learning environments (Means et al., 2013). This section reviews literature and studies on these modalities and their impact on student performance, engagement, and adaptability.

Face-to-face learning

Face-to-face learning has long been the traditional mode of education, offering direct interaction between teachers and students. It provides immediate feedback, fosters collaborative learning, and enhances social skills (Bonk & Graham, 2012), and it remains vital because of its effectiveness in fostering engagement and comprehension (Garrison & Vaughan, 2008). Several studies link face-to-face engagement to improved academic performance (Trowler, 2010); physical classrooms enable dynamic discussion, active participation, and personalized guidance from instructors (Prince, 2004). Active in-class learning has likewise been associated with higher assessment performance than passive lecturing (Freeman et al., 2014).

Face-to-face learning promotes social interaction, which plays a crucial role in cognitive and emotional development. Vygotsky's (1978) social constructivist theory holds that learning is a social process best facilitated through direct engagement with peers and instructors, and classroom discussion, group activities, and hands-on experiences have been found to improve problem-solving and critical thinking (Johnson & Johnson, 2009). Its limitations include rigid schedules and location dependency (Means et al., 2013); large classes can hinder personalized instruction, and some students struggle to participate because of social anxiety or learning preferences (Coates, 2007). The COVID-19 pandemic also highlighted the need for flexible models as schools worldwide adopted online and blended approaches (Hodges et al., 2020). Even so, classroom instruction remains the preferred approach of many students and educators, and future research should explore how technology can be integrated into face-to-face learning to enhance its effectiveness and adaptability.

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Online learning

Online learning has become an essential modality, providing flexibility, accessibility, and a self-paced environment (Means et al., 2013). As digital tools and internet access improve, it has emerged as a viable alternative to face-to-face instruction, particularly in higher education and professional development (Allen & Seaman, 2017). Engagement in online learning varies with instructional design and learner motivation (Dixson, 2015); well-structured courses that include discussion forums and multimedia content tend to foster higher engagement and better outcomes (Bernard et al., 2014), although some students struggle with self-discipline, leading to lower performance than in traditional classrooms (Hodges et al., 2020).

Its primary advantage is flexibility, which lets students access content at their convenience (Hrastinski, 2008) and benefits non-traditional learners, including working professionals and people in remote areas (Allen & Seaman, 2017). Digital literacy and reliable internet access nevertheless remain barriers, particularly in low-income regions (Bower et al., 2015). Online learning also brings reduced social interaction and difficulty sustaining motivation (Arbaugh et al., 2009); the lack of immediate instructor feedback can hinder comprehension, making interactive and synchronous strategies necessary (Murphy et al., 2011); and teachers need professional development in online pedagogy (Lawless & Pellegrino, 2007). Its effectiveness therefore depends on sound instructional strategies, student motivation, and technological infrastructure, and future research should focus on engagement strategies and on removing barriers.

Modular learning

Modular learning provides students with self-contained learning modules for independent, self-paced study. It is particularly beneficial in distance education and where face-to-face instruction is not feasible (Bernardo, 2021). In response to the COVID-19 pandemic, it became a primary mode of instruction in many institutions worldwide (Cahapay, 2020). Studies indicate that it positively affects engagement and academic performance when well structured (Alea et al., 2020), as modules supply content, activities, and assessments that guide learners. However, some students experience difficulty with motivation and comprehension without direct teacher supervision (Salas & Trinidad, 2021), and supplementing modules with teacher support and feedback can enhance understanding and retention (Basilaia & Kvavadze, 2020).

A key advantage is flexibility, since students learn at their own pace and convenience (Ramos & de Guzman, 2021). It is particularly beneficial for learners in remote areas with limited connectivity, because printed modules can be distributed to ensure continued education (Tria, 2020). Disparities in access to materials and in the availability of parental support can nevertheless affect its effectiveness (Castillo et al., 2021). Its challenges include the lack of immediate feedback and student isolation, which can hinder motivation and performance (Bernardo, 2021); not all caregivers have the skills or time to assist (Cahapay, 2020); and teachers find it difficult to assess progress and the effectiveness of self-directed learning (Salas & Trinidad, 2021). Its success depends on module quality, support mechanisms, and student motivation, and future research should improve module development and supplementary instructional strategies.

Synchronous and asynchronous learning

Asynchronous and synchronous learning have become particularly significant in online education, providing flexibility and accessibility to learners worldwide (Hrastinski, 2008). Asynchronous learning lets students work at their own pace, whereas synchronous learning fosters real-time interaction and engagement (Bernard et al., 2014). Asynchronous learning uses recorded lectures, discussion boards, and self-paced assignments to support independent learning (Means et al., 2013) and is accessible to students in different time zones and circumstances (Murphy et al., 2011). It promotes self-directed learning and effective management of study schedules (Garrison & Cleveland-Innes, 2005), encourages deep learning through time for reflection and critical thinking (Akyol &

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Garrison, 2011), and lets learners with different paces of comprehension review materials repeatedly for better retention (Hrastinski, 2008). Its challenges are reduced social interaction and delayed feedback (Arbaugh et al., 2009), isolation and decreased motivation (Bowers & Kumar, 2015), and difficulty staying engaged for learners with weak time-management skills (Broadbent & Poon, 2015).

Synchronous learning involves real-time interaction through video conferencing, live chat, and virtual classrooms. It mimics face-to-face learning by facilitating instant feedback and dynamic discussion (Bernard et al., 2014) and is common in hybrid and online environments (Means et al., 2013). It builds a sense of community, and real-time interaction enhances engagement, motivation, and academic performance (Falloon, 2011); it lets instructors address questions immediately (Martin et al., 2020); and collaborative activities such as group discussions and live presentations promote active learning and teamwork (Hrastinski, 2008). Its limitations lie in flexibility and accessibility (Murphy et al., 2011): students in different time zones or with conflicting schedules may be unable to attend (Bowers & Kumar, 2015), and connectivity problems can disrupt participation (Arbaugh et al., 2009). Combining the two in a blended approach can optimize outcomes (Garrison & Cleveland-Innes, 2005); the effectiveness of each depends on course design, learner preferences, and context (Bernard et al., 2014), and educators must weigh student needs and content when choosing between them. Future research should explore strategies for integrating the two effectively.

Impact of learning modalities on student performance

The mode of delivery plays a crucial role in shaping student performance, and understanding the impact of each modality is essential to judging its effectiveness in diverse settings (Means et al., 2013). Direct teacher–student interaction in face-to-face learning enhances engagement and performance (Chen et al., 2010), and its structured environment allows immediate feedback, personalized guidance, and active discussion (Tinto, 2012). It is, however, limited in flexibility and accessibility (Means et al., 2013): students in remote areas or with financial or health constraints may struggle to attend regularly (Zimmerman, 2002), and classroom instruction may not accommodate different learning styles (Brown, 2016).

Students in online courses perform comparably to, or better than, those in traditional classrooms when course design is effective (Means et al., 2010). Asynchronous learning reinforces comprehension and retention (Hrastinski, 2008), yet some students struggle with time management and self-discipline (Broadbent & Poon, 2015), and the lack of immediate feedback and reduced peer interaction can lower motivation and engagement (Bernard et al., 2014). Blended learning enhances performance by providing the benefits of both modalities (Garrison & Kanuka, 2004), and it leads to higher satisfaction and improved outcomes by pairing structured in-person interaction with the flexibility of digital resources (Graham, 2006). Modular learning can improve performance, particularly among independent learners (Trinidad, 2020), but students with limited self-regulation may struggle without immediate instructor support (Hodges et al., 2020). Comparative studies indicate that no single approach is universally superior; effectiveness depends on course design, student characteristics, and institutional support (Means et al., 2013), and a meta-analysis by Bernard et al. (2014) found that students performed best when they had access to multiple modalities tailored to their needs.

Teacher perspectives on learning delivery modalities

Teachers' perspectives shape their instructional strategies, engagement techniques, and overall effectiveness (Graham, 2006), and understanding them is crucial to developing policies that enhance delivery and outcomes (Means et al., 2013). Many educators prefer face-to-face instruction for its structured environment and direct interaction (Chen et al., 2010), citing real-time engagement, immediate feedback, and the ability to adapt lessons to student responses (Tinto, 2012). They also report challenges, namely classroom management and limited flexibility (Means et al., 2013), difficulty accommodating diverse learning styles (Brown, 2016), and the effects of absences, logistics, and class size (Zimmerman, 2002).

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Teachers hold mixed views of online learning (Hrastinski, 2008). Some appreciate the integration of digital tools that make learning more engaging (Means et al., 2010); others worry about reduced participation, lack of immediate feedback, and difficulty monitoring progress (Broadbent & Poon, 2015). They often struggle to maintain motivation and ensure academic integrity online (Bernard et al., 2014); the lack of direct supervision may lower engagement; technical issues and digital literacy gaps hinder the process (Hodges et al., 2020); and preparing online materials and assessments takes more time (Garrison & Kanuka, 2004). Blended learning has been well received as a balanced approach (Graham, 2006) that mixes structured in-person teaching with the flexibility of online resources (Means et al., 2013), and teachers find it particularly effective for engagement and retention (Garrison & Kanuka, 2004). Teachers appreciate modular learning for individualized learning at different paces (Trinidad, 2020) but find it challenging because of limited teacher–student interaction and difficulty assessing comprehension (Hodges et al., 2020). Preferences for any modality depend on teaching style, subject matter, and institutional support (Means et al., 2013): some educators thrive in interactive classrooms, while others prefer the flexibility and technology of online and blended environments (Hrastinski, 2008).

Student engagement and learning delivery modalities

Student engagement is crucial to academic performance, retention, and educational success (Fredricks et al., 2004), and the delivery modality plays a significant role in it (Means et al., 2013). Face-to-face learning enables real-time interaction, immediate feedback, and collaboration (Chen et al., 2010; Tinto, 2012), and its structure fosters the accountability and social interaction that are key elements of engagement (Garrison & Kanuka, 2004). Engagement can nevertheless be hindered by large classes, passive environments, and rigid schedules (Brown, 2016), as well as by classroom distractions and limited personalization (Zimmerman, 2002).

Online learners often experience greater autonomy and self-directed learning (Hrastinski, 2008), and access to diverse digital resources, discussions, and multimedia can enhance engagement (Means et al., 2010). Barriers include lack of immediate feedback, isolation, and the need for strong self-regulation (Broadbent & Poon, 2015), together with technical difficulties, limited internet access, and digital literacy gaps (Hodges et al., 2020). Blended learning is recognized as an effective way to enhance engagement (Graham, 2006) by combining in-person interaction with online support (Means et al., 2013), and it improves motivation, participation, and outcomes by accommodating different learning styles (Garrison & Kanuka, 2004). Modular learning fosters self-paced engagement for learners with different needs (Trinidad, 2020), although engagement depends heavily on the quality of materials and the presence of support mechanisms (Means et al., 2013). Overall, engagement varies significantly across modalities: face-to-face learning provides social interaction, online learning offers flexibility and resource-rich environments, blended learning combines both strengths, and modular learning fosters independent study but may need additional engagement strategies for learners who struggle with independence (Graham, 2006; Hrastinski, 2008; Trinidad, 2020).

Challenges in implementing learning delivery modalities

Implementing diverse modalities presents both opportunities and challenges for educators, students, and institutions, shaped by technological advances, accessibility issues, and pedagogical strategies (Means et al., 2013). The literature identifies the following challenges.

- **Infrastructure.** Reliable internet, adequate devices, and learning management systems are essential for digital education (Hodges et al., 2020), yet disparities in access, especially in low-income and rural areas, create significant obstacles (Broadbent & Poon, 2015).

- **Teacher readiness.** Many educators find it difficult to adapt to new strategies, particularly in digital environments (Graham, 2006); continuous professional development is needed to equip them for different modalities (Tondeur et al., 2017).

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- **Student engagement.** Engagement is a challenge in every modality. Face-to-face learning benefits from direct interaction, whereas online and modular learning rely on self-discipline and motivation (Hrastinski, 2008); the lack of real-time feedback and social presence online can lead to disengagement (Fredricks et al., 2004).

- **Assessment.** Face-to-face assessment allows direct monitoring, while online assessment raises concerns about academic integrity and cheating (Brown, 2016); self-paced evaluation in modular learning is difficult to standardize (Means et al., 2010).

- **Equity.** Students from disadvantaged backgrounds struggle with access to materials, connectivity, and academic support (Trinidad, 2020); blended and online formats can exacerbate these inequalities, so institutions need inclusive strategies (Chen et al., 2010).

- **Institutional policy.** Policies on curriculum adaptation, funding, and technology integration influence the success of new delivery methods (Garrison & Kanuka, 2004), and clear guidelines and support mechanisms are needed for smooth transitions between modalities (Tinto, 2012).

- **Student readiness.** Students accustomed to traditional classrooms may struggle with self-paced learning and time management in online and modular settings (Zimmerman, 2002); orientation programs and academic advising can help (Means et al., 2013).

- **Parental involvement.** Parental involvement is crucial in modular and online learning (Hodges et al., 2020), but many parents lack the knowledge or resources to support their children, producing inconsistent outcomes (Tondeur et al., 2017).

- **Well-being.** Transitions can cause stress and anxiety among students and teachers, and online learning in particular contributes to isolation that can harm well-being and performance (Hrastinski, 2008); counseling services and peer engagement activities can help (Fredricks et al., 2004).

- **Teacher workload.** Multiple modalities increase workload, stress, and burnout (Graham, 2006), as educators prepare diverse materials, assess across platforms, and provide individualized support; policies must ensure manageable workloads and additional resources (Tinto, 2012).

- **Comparable outcomes.** Online and blended learning can be as effective as face-to-face instruction but require careful design and engagement strategies (Means et al., 2010); otherwise gaps in knowledge and skills may result (Zimmerman, 2002).

- **Sustainability.** Digital infrastructure, teacher training, and curriculum adjustments must be continuously updated (Broadbent & Poon, 2015), which requires financial investment and stakeholder collaboration (Garrison & Kanuka, 2004).

Future research should explore innovative pedagogical strategies, technology integration, and policy improvement; collaboration among educators, institutions, and policymakers is needed to create adaptive, resilient learning environments (Means et al., 2013), and continuous assessment and feedback mechanisms can help refine modalities (Chen et al., 2010). While each modality offers unique advantages, addressing these challenges is essential for equitable and effective education.

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Synthesis

Across the literature, the four modalities cater to diverse learner needs yet each carries distinct advantages and challenges (Means et al., 2013). Five cross-cutting themes emerge.

- **Engagement.** Face-to-face learning fosters direct interaction and social participation (Fredricks et al., 2004); online learning offers flexibility but requires self-motivation and technological competence (Hrastinski, 2008); blended learning combines structured interaction with digital tools, potentially maximizing engagement (Graham, 2006); modular learning relies on self-directed study and may reduce engagement without appropriate design (Trinidad, 2020).

- **Teacher preparation.** Face-to-face instruction draws on traditional pedagogy, whereas online and blended learning demand digital proficiency and virtual teaching techniques (Tondeur et al., 2017); many teachers find the transition difficult, underscoring the need for institutional support and training (Garrison & Kanuka, 2004).

- **Technology and equity.** Reliable internet, digital literacy, and devices are crucial for online and blended learning (Hodges et al., 2020); students from underprivileged backgrounds face inequities (Broadbent & Poon, 2015; Chen et al., 2010), which require institutional investment in technology and training. Blended learning may mitigate the problem if institutions support it (Means et al., 2013), and modular learning, though it provides offline materials, requires continuous student support (Trinidad, 2020).

- **Assessment.** Face-to-face assessment allows direct supervision, while online evaluation raises integrity concerns (Brown, 2016); blended learning uses diverse strategies such as digital quizzes and collaborative projects that enhance reliability (Means et al., 2010); self-paced modular assessment needs innovative approaches to ensure fairness and standardization (Trinidad, 2020).

- **Flexibility versus structure.** Online and modular learning offer flexibility (Zimmerman, 2002) that may reduce accountability and increase procrastination (Hrastinski, 2008), whereas face-to-face and blended learning provide structure that promotes consistent engagement (Tinto, 2012); a balanced approach could enhance learning experiences. Modalities also affect mental health and social well-being: online and modular learning may foster isolation (Hodges et al., 2020), face-to-face learning supports community (Fredricks et al., 2004), and blended learning can address emotional and social challenges (Garrison & Kanuka, 2004). Sustainability depends on institutional support, policy, and technological advancement (Broadbent & Poon, 2015; Graham, 2006).

In sum, face-to-face learning excels in direct interaction; online learning provides flexibility at the cost of engagement challenges; blended learning appears to offer the most balanced approach by integrating structure and flexibility; and modular learning benefits independent learners but requires enhanced support. Addressing technology access, teacher preparedness, assessment integrity, and engagement is crucial to optimizing modalities and ensuring inclusive, high-quality education.

Theoretical Framework

Learning delivery modalities are pedagogical approaches that determine how instruction is designed, implemented, and experienced. They provide the structure of teaching–learning interaction, from traditional face-to-face instruction to flexible, technology-mediated platforms. Grounded in constructivism, behaviorism, and connectivism, they shape both the processes and outcomes of education (Moore et al., 2011), and understanding these foundations helps educators select approaches suited to learners' needs, contexts, and resources.

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Face-to-face learning. Rooted in behaviorist traditions, it highlights structured teacher–student interaction, immediate feedback, and reinforcement of learning behaviors (Skinner, 1953). Physical presence is argued to foster richer social interaction, collaboration, and hands-on experience that deepen knowledge acquisition (Vygotsky, 1978), and social constructivism further affirms in-person modalities for scaffolding learning within a community of practice.

Distance learning. It is informed by theories of independent learning and self-directed education. Wedemeyer (1981) emphasized learner autonomy, with learners managing their own pace, time, and space of study; this aligns with Knowles' (1984) andragogy, which stresses adult learners' self-regulation and intrinsic motivation. Distance learning opens access for learners in isolated or underserved communities, addressing equity and inclusion.

Online learning. As a subcategory of distance education, it is underpinned by connectivism, which emphasizes learning through networks and digital interactions; Siemens (2005) posited that knowledge is distributed across networks and that the ability to navigate, filter, and apply it is central to digital-age learning. Online modalities also draw on cognitive load theory, in which multimedia and interactivity must be designed so that they support learning without overwhelming cognitive processing (Sweller, 2011).

Blended learning. Combining face-to-face and online approaches, it rests on constructivist and transformative learning theories: constructivism emphasizes active, meaningful engagement with content, while transformative learning focuses on critical reflection and perspective shifts (Mezirow, 1997). By pairing online flexibility with in-person social interaction, blended learning accommodates diverse learners and fosters higher-order thinking, and blended approaches enhance engagement and performance when thoughtfully designed (Garrison & Vaughan, 2008).

Modular learning. Common in resource-limited contexts, it draws on experiential learning theory, which emphasizes learning through doing and reflection (Kolb, 1984). Self-contained modules provide content, activities, and assessments that enable independent progress, reflecting mastery learning, in which learners move at their own pace and achieve competency before advancing (Bloom, 1974). It became particularly vital during the COVID-19 pandemic, sustaining education despite technological gaps.

Televised and radio-based instruction. These modalities are rooted in mass communication theory, particularly the diffusion of innovations (Rogers, 2003), and use media to transmit content widely, especially in rural or technologically disadvantaged settings. The cognitive theory of multimedia learning (Mayer, 2009) supports them by suggesting that audiovisual formats enhance comprehension when designed according to dual-coding and coherence principles.

Flexible and HyFlex learning. Flexible learning is informed by universal design for learning (UDL), which advocates multiple means of representation, engagement, and expression (CAST, 2018), and emphasizes adaptability in content, assessment, and scheduling; it also aligns with humanistic educational theory, which prioritizes learner-centered approaches, autonomy, and holistic development (Rogers, 1969). Hybrid flexible (HyFlex) learning integrates synchronous and asynchronous modalities, guided by heutagogy, or self-determined learning, which highlights learners' agency in deciding when, where, and how to participate (Blaschke, 2012). HyFlex gives learners the option to engage online or face-to-face without compromising access to content or outcomes, showing how theoretical frameworks evolve in response to disruption and technological change.

In summary, learning delivery modalities are not merely logistical strategies but are grounded in educational theories that inform their design and implementation, from behaviorist reinforcement in face-to-face learning to heutagogical autonomy in HyFlex. Integrating constructivism, connectivism, humanism, and multimedia learning underscores the complexity of educational practice, and aligning modalities with both theory and context enhances their effectiveness in promoting equitable, meaningful, and sustainable education.

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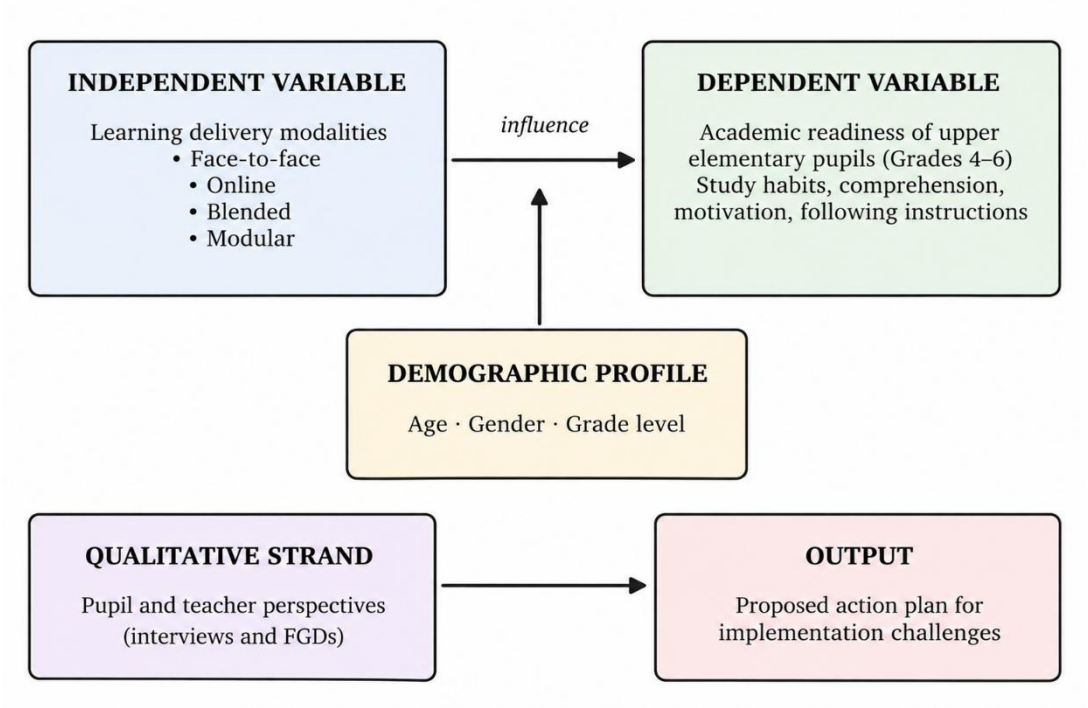
Conceptual Framework

Figure 1 presents the conceptual model of the study. The independent variable is the set of learning delivery modalities used by the school (face-to-face, online, blended, and modular learning), and the dependent variable is the academic readiness of upper elementary pupils. Pupils' demographic profile (age, gender, and grade level) is examined as a grouping factor in their assessment of this influence. The qualitative strand (pupil and teacher perspectives) explains the quantitative pattern and informs the proposed action plan.

Figure 1. Conceptual model of the study



Statement of the Problem and Hypotheses

This study sought to answer the following research questions:

1. What is the demographic profile of the pupil-respondents in terms of (a) age, (b) gender, and (c) grade level?

2. How do the pupil-respondents assess their academic readiness using the following learning delivery modalities: (a) face-to-face, (b) online, (c) blended, and (d) modular?

3. Is there a significant difference between the pupil-respondents' assessment of the influence of learning delivery modalities on their academic readiness and their demographic profile, such as age, gender, and grade level?

4. What are the perspectives of pupils on learning engagement and learning delivery modalities?

5. What are the perspectives of teachers on the implementation of learning delivery modalities in the teaching of their subject areas?

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6. What action plan could be proposed to address the challenges in the implementation of learning delivery modalities?

The following hypotheses were tested at the 0.05 level of significance:

H0: There is no significant difference between the pupil-respondents' assessment of the influence of learning delivery modalities on their academic readiness and their demographic profile, such as age, gender, and grade level.

Ha: There is a significant difference between the pupil-respondents' assessment of the influence of learning delivery modalities on their academic readiness and their demographic profile, such as age, gender, and grade level.

The analysis reported in this study tests these hypotheses for grade level, the demographic variable for which grade-level mean ratings are available (Section 3.3).

Significance of the Study

Pupils. The study provides insight into how different delivery modalities influence their academic readiness. By identifying which modalities foster better comprehension, engagement, and preparedness, the findings can help ensure that pupils receive instructional approaches that match their developmental needs, close learning gaps, and support their holistic formation within a Catholic educational environment.

Teachers. The findings highlight the effectiveness of various delivery modalities in shaping pupils' readiness for academic tasks and can guide teachers in selecting and implementing developmentally appropriate strategies responsive to pupils' learning styles. They supply evidence-based practices that strengthen instructional decisions and classroom outcomes, whether instruction is modular, online, blended, or face-to-face.

School administrators. The study offers a basis for crafting policies and programs aligned with effective modalities. Knowing which modalities best support readiness, administrators can allocate resources, design training programs, and make informed curriculum-delivery decisions, helping the school maintain high academic standards while responding to varying contexts such as technological access and family support.

Parents. The study offers knowledge about the role of delivery modalities in preparing children for academic success. Parents can better support learning at home, monitor progress, and collaborate with teachers, and they can make informed decisions about the modality that suits their child, particularly during transitions or disruptions.

The educational community and future researchers. The study adds to knowledge on delivery modalities and academic readiness in the Philippine private school context. Its results may serve as a reference for comparative studies across public and private institutions or grade levels, and its emphasis on aligning instruction with developmental readiness can guide reforms and innovations locally and globally.

Definition of Terms

The following terms are operationally defined for a better understanding of this paper.

Learning delivery modalities refer to the specific methods employed by the school to facilitate instruction, namely face-to-face classes, online learning, modular distance learning, and blended learning, as implemented by the private Catholic school in Manila during the academic year.

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Face-to-face learning refers to a modality in which teachers and pupils interact physically in a classroom, allowing immediate feedback, guided instruction, and peer collaboration.

Online learning refers to a modality in which pupils access lessons, activities, and assessments through digital platforms (e.g., Zoom, Google Classroom, or learning management systems), requiring internet connectivity and gadgets.

Modular learning refers to a modality in which pupils study through self-learning modules prepared by teachers; modules contain lessons, activities, and assessments designed for independent or guided study at home.

Blended learning refers to a combination of face-to-face and online or modular instruction, in which pupils experience both classroom interaction and flexible, home-based learning activities.

Academic readiness refers to the preparedness of elementary pupils to engage in and cope with grade-level learning tasks, measured through indicators such as study habits, comprehension skills, motivation, and the ability to follow instructions and complete learning tasks.

Elementary pupils refers to students enrolled in Grades 4 to 6 at the private Catholic school in Manila who are respondents of the study.

Private Catholic school refers to the institution where the study was conducted, characterized by its Catholic educational mission, private funding, and adherence to Department of Education (DepEd) curriculum standards. The name of the school is withheld for confidentiality.

Influence refers to the measurable effect or impact of different delivery modalities on the academic readiness of pupils, as perceived by pupils and reflected in their ability to meet academic requirements and learning expectations. Because the design is descriptive and survey-based, the term refers to perceived effect and not to demonstrated causation.

Scope and Delimitations

The study focused on elementary pupils enrolled in a private Catholic school in Manila during the school year of the study. It specifically covered Grades 4 to 6, considered the upper elementary level, where academic readiness can be assessed more systematically. Teachers and parents could be consulted for supporting perspectives, but the primary respondents were the pupils themselves.

The independent variable was the set of learning delivery modalities used by the school (face-to-face, modular, online, and blended learning). The dependent variable was pupils' academic readiness, framed as preparedness in basic literacy, numeracy, study habits, and classroom participation, and measured through pupils' self-assessment of their readiness across the four modalities.

The study was confined to one private Catholic school in Manila and did not cover other Catholic schools, public schools, or institutions outside the city; results are therefore limited to the context of the chosen school and cannot be generalized to all educational settings in the Philippines. It was conducted within one academic year and does not include longitudinal data, which limits understanding of the long-term impact of delivery modalities; the findings reflect only the conditions and experiences of pupils during the specified school year.

The study concentrated solely on academic readiness and did not extend to socio-emotional development, spiritual growth, or extracurricular involvement. Data were collected through a pupil survey, semi-structured interviews,

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and focus group discussions; no experimental interventions were employed, and the analysis was limited to descriptive and correlational methods, excluding causal claims.

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METHODS

Research Design

This study employed a mixed-methods research design to examine the implementation of learning delivery modalities in a private school in Manila. Specifically, a convergent parallel design was used: quantitative and qualitative data were collected simultaneously, analyzed separately, and then merged for comprehensive interpretation (Creswell & Plano Clark, 2018). The quantitative strand measured pupils' academic readiness under the four modalities (face-to-face, online, blended, and modular) through a structured survey, yielding measurable data that could reveal patterns and relationships related to implementation.

The quantitative strand used survey research. Its main objective was to find out how selected learners from Grades 4 to 6 assess their academic readiness across the modalities implemented by the school. A survey design, in the words of Creswell and Creswell (2018), "provides a quantitative description of trends, attitudes, and opinions of a population, or tests for associations among variables of a population, by studying a sample of that population. Survey designs help researchers answer three types of questions: (a) descriptive questions; (b) questions about the relationships between variables; or, in cases where a survey design is repeated over time in a longitudinal study, (c) questions about predictive relationships between variables over time" (p. 207).

Accordingly, the study sought to answer descriptive questions and questions about relationships between variables, namely learners' perceptions of their academic readiness across modalities and their relationship with respondents' demographic profiles. The design allowed the study to be completed in the shortest span of time, and other quantitative designs, such as experimental designs, were impractical because the respondents were Grades 4 to 6 learners enrolled in the current school year. Because cross-sectional data were gathered at a single point in time, with the instrument administered on a definite day and time, a survey also yielded concrete statistical interpretation, unlike observations and personal interviews. The anonymity of the survey assured respondents' confidentiality and non-disclosure of responses.

The qualitative strand complemented the quantitative data by exploring the lived experiences, perceptions, and challenges of participants during implementation. Semi-structured interviews and focus group discussions (FGDs) were conducted with selected teachers and pupils using purposive sampling, allowing in-depth understanding of contextual factors such as technological readiness, instructional adaptability, and institutional support

Locale of the Study

The study was conducted in a private Catholic school in Manila. The school is not named for confidentiality.

Participants and Sampling

The target population was elementary learners from Grades 4 to 6 in the private Catholic school who were enrolled in the school year of the study. Respondents were selected using three criteria: (a) they were in Grades 4 to 6; (b) they were attending regular face-to-face classes alongside the other delivery modalities implemented by the school; and (c) they were enrolled at the time of the study. The first criterion rested on the belief that Grades 4 to 6 learners could give honest and ethical responses to the survey. The second reflected the researcher's interest in the perspective of elementary learners experiencing all modalities. The third reflected the researcher's interest in the perspective of elementary learners experiencing all modalities.

Ninety (90) pupils from Grades 4 to 6 responded to the survey (25 in Grade 4, 28 in Grade 5, and 37 in Grade 6; Tables 1 to 3).

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Instrument

An adapted survey questionnaire was used to gather learners' responses on their academic readiness across the four modalities. It had two parts: Part One, the learner profile (age, gender, and grade level); and Part Two, perceived academic readiness across the modalities. The researcher maintained the order of items by modality; each of the four categories (face-to-face, online, blended, and modular learning) contained four statements, for 16 items in all. Items were answered on a four-point Likert-type scale describing the level of readiness: 4 = Always Ready, 3 = Sometimes Ready, 2 = Seldom Ready, and 1 = Never Ready. Items 8 ("Sometimes I cannot join online classes because of internet problems"), 14 ("My parents or older siblings help me with my modules"), and 16 ("It is hard for me to learn without a teacher explaining the lesson") describe barriers or support rather than readiness. Mean ratings were interpreted as follows: 3.26–4.00 = Always Ready, 2.51–3.25 = Sometimes Ready, 1.76–2.50 = Seldom Ready, and 1.00–1.75 = Never Ready.

Data were gathered using the structured survey instrument. After permission was secured from the school administration and informed consent from the participants and their parents or guardians, the survey was administered in a controlled school setting to ensure clarity of instructions and consistency of responses. The researcher explained the purpose of the study and guided the learners in answering the questionnaire to minimize misunderstanding, while ensuring that responses remained voluntary and confidential. Completed forms were collected, checked for completeness, and organized for statistical analysis in accordance with ethical standards in educational research (Creswell, 2014). Qualitative data were gathered concurrently through the semi-structured interviews and FGDs described in Section 2.1.

Data Processing and Statistical Treatment

Responses were checked for completeness and encoded in a statistical software program. Academic readiness was determined using the weighted mean and standard deviation to describe the central tendency and variability of learners' responses per modality, and results were interpreted using a predefined Likert scale. To determine whether pupils' assessments differed by demographic profile, a single-factor (one-way) analysis of variance (ANOVA) was applied at the 0.05 level of significance, with grade level as the grouping factor. The ANOVA used the 16-item mean ratings within each grade level as observations (3 groups, n = 48, df = 2 and 45); because items rather than individual pupils are the unit of analysis, the result is treated as exploratory (see Section 4.4). The source Methods section named a one-way repeated-measures ANOVA across the four modalities; the reported analysis is the single-factor ANOVA across grade levels described here, and the text has been aligned to it.

Validity, Reliability, and Trustworthiness

To ensure validity and reliability, triangulation was employed by comparing data from multiple sources and methods. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative findings were systematically organized and validated through member checking and peer debriefing. The integration of both data sets provided a more holistic understanding of how modalities are implemented and experienced in the private school context, strengthening the credibility and applicability of the study (Creswell, 2014).

Ethical Considerations

Ethical considerations, including informed consent, confidentiality, and voluntary participation, were strictly observed. Before data collection, informed consent was obtained from the learners' parents or legal guardians, and assent was secured from the learners themselves. The purpose of the study, the nature of the survey, and the voluntary nature of participation were explained in age-appropriate language, and participants were assured that they could withdraw at any time without penalty. Confidentiality and anonymity were maintained throughout: no personally identifiable information was collected, responses were coded so that individual learners could not be

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traced, and all data were used solely for academic purposes and securely stored with access limited to the researcher. The instrument avoided sensitive or intrusive questions, so that learners were not exposed to psychological discomfort or academic pressure. Responses were treated confidentially under the provisions of the Data Privacy Act of 2012. The study adhered to ethical standards on the protection of minors in educational research: data were collected in a safe and supportive environment, with teacher guidance when necessary, and the researcher complied with institutional and educational research ethics guidelines emphasizing respect, beneficence, and justice (American Psychological Association [APA], 2020; Creswell & Creswell, 2018). Permission to administer the instruments to Grades 4 to 6 pupils was obtained from the school principal (letter dated July 27, 2024; Appendix B).

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RESULTS

This section presents, analyzes, and interprets the numerical and verbal data in relation to the research questions, triangulating results in the manner of mixed-methods analysis.

Demographic Profile of the Pupil-Respondents

Table 1. Age Distribution of Learner-Respondents

Age	Frequency (f)	Percentage (%)
9	8	9%
10	24	27%
11	33	37%
12	20	22%
13	5	6%
Total	**90**	**100%**

The 90 respondents were distributed across five age groups. The largest group was aged 11 ($f = 33$, 37%), followed by those aged 10 ($f = 24$, 27%) and 12 ($f = 20$, 22%). The youngest group, aged 9, comprised 8 respondents (9%), and the oldest, aged 13, only 5 (6%). Together, ages 10 to 12 accounted for 86% of the sample, indicating that the findings mainly reflect learners in this bracket, whose developmental readiness, learning styles, and home and school support are likely to shape their readiness across modalities. Younger learners may find independent or technology-based modalities more demanding because of limited cognitive and technical skills, whereas older learners may show greater adaptability and autonomy; the small numbers at both extremes limit what can be said about them. The age profile suggests that instruction should balance structured guidance with opportunities for independent learning and differentiate for younger and older learners.

Table 2. Gender Distribution of Learner-Respondents

Gender	Frequency (f)	Percentage (%)
Male	46	51%
Female	44	49%
Total	**90**	**100%**

Of the 90 respondents, 46 (51%) were male, and 44 (49%) were female, a difference of only 2 percentage points. The slight male predominance may reflect availability during data collection, but it is marginal and does not indicate a gender imbalance. The near-equal representation means that the perspectives of both male and female

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learners were captured, which limits gender bias in interpreting readiness across modalities and suggests that any patterns are not skewed toward one gender.

Table 3. Grade Level Distribution of Learner-Respondents

Grade level	Frequency (f)	Percentage (%)
Grade 4	25	28%
Grade 5	28	31%
Grade 6	37	41%
Total	**90**	**100%**

Grade 6 pupils formed the largest group (*f* = 37, 41%), followed by Grade 5 (*f* = 28, 31%) and Grade 4 (*f* = 25, 28%). Grade 6 pupils' greater representation may reflect enrollment size or availability during data collection; their longer academic experience with different modes of instruction may also make their evaluations particularly informative. Grade 4 pupils, though fewest, ensure that younger learners' adaptability and engagement are represented. The relatively close percentages across the three grades allow comparison of experiences across stages of upper elementary education.

Academic Readiness across Learning Delivery Modalities

Table 4. Assessment of Pupils' Academic Readiness in Terms of Learning Delivery Modalities

Particulars	M	SD	Verbal interpretation
Face-to-face learning	**3.32**	—	
1. I listen better when my teacher is in front of me.	3.57	0.65	Always Ready
2. I ask more questions when I am in the classroom.	2.77	0.86	Sometimes Ready
3. I understand lessons more when I see my teacher and classmates.	3.30	0.89	Always Ready
4. I do better in school when I go to class every day.	3.63	0.66	Always Ready
Online learning (through the internet)	**3.19**	—	
5. I know how to use a phone, tablet, or computer for learning.	3.79	0.59	Always Ready
6. I can follow my lessons during online classes.	3.18	0.79	Sometimes Ready
7. I can study by myself using online lessons.	3.09	0.94	Sometimes Ready

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8. Sometimes I cannot join online classes because of internet problems.	2.68	1.03	Sometimes Ready
Blended learning (both online and face-to-face)	**3.37**	—	
9. I learn more when I go to school and study online.	3.37	0.76	Always Ready
10. I enjoy learning in different ways, like online and classroom.	3.40 †	0.83	Always Ready
11. I find it easy to switch from online to classroom learning.	3.29	0.90	Always Ready
12. I can do my schoolwork better with both teacher help and online tools.	3.42	0.81	Always Ready
Modular learning (printed modules at home)	**3.02**	—	
13. I can answer my modules by myself.	3.49	0.72	Always Ready
14. My parents or older siblings help me with my modules.	2.38 †	0.97	Sometimes Ready
15. I finish my schoolwork using printed modules.	3.00	0.90	Sometimes Ready
16. It is hard for me to learn without a teacher explaining the lesson.	3.21	0.88	Sometimes Ready
General weighted mean	**3.22**	**0.82**	**Sometimes Ready**

Note. Scale: 4 = Always Ready, 3 = Sometimes Ready, 2 = Seldom Ready, 1 = Never Ready.

The overall general weighted mean of 3.22, interpreted as "Sometimes Ready," suggests that pupils are moderately prepared but not consistently so across modalities. This indicates variability in how learners adapt to different instructional approaches and reflects continuing challenges in optimizing learning delivery in diverse contexts (Bernardo, 2020).

Face-to-face learning. Readiness was generally high, with "Always Ready" ratings for listening better when the teacher is physically present ($M = 3.57$) and doing better with regular attendance ($M = 3.63$). The lower mean for asking questions in class ($M = 2.77$) suggests that not all learners feel equally confident participating, pointing to a need to strengthen inclusive classroom practices.

Online learning. Pupils showed strong technological readiness, particularly in using digital devices ($M = 3.79$, "Always Ready"). Readiness declined for independent learning and comprehension, with "Sometimes Ready" ratings for following lessons ($M = 3.18$) and self-study ($M = 3.09$), and connectivity problems ($M = 2.68$) remained a barrier.

Blended learning. Blended learning emerged as the most favorable modality, with all four indicators rated "Always Ready," including learning more when combining school and online study ($M = 3.37$) and enjoying varied learning methods ($M = 3.40$).

Modular learning. Readiness was mixed. Pupils could answer modules independently ($M = 3.49$) but were less ready to complete tasks with printed modules ($M = 3.00$) and reported difficulty learning without teacher

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explanation (M = 3.21). The low mean for help from family members (M = 2.38) underscores the challenges of home-based learning.

Standard deviations ranged from 0.59 to 1.03, indicating moderate variability in responses and the presence of individual differences that may stem from access to resources, learning preferences, and socio-economic conditions.

Differences in Assessment by Grade Level

Table 5. Pupil-Respondents' Assessment of the Influence of Learning Delivery Modalities on Academic Readiness, by Grade Level (Mean Ratings)

Particulars	Grade 4	Grade 5	Grade 6
Face-to-face learning	**3.07**	**3.35**	**3.45**
1. I listen better when my teacher is in front of me.	3.20	3.68	3.73
2. I ask more questions when I am in the classroom.	2.72	2.75	2.76
3. I understand lessons more when I see my teacher and classmates.	2.96	3.39	3.46
4. I do better in school when I go to class every day.	3.40	3.57	3.84
Online learning (through the internet)	**3.00**	**3.27**	**3.29**
5. I know how to use a phone, tablet, or computer for learning.	3.52	3.86	3.92
6. I can follow my lessons during online classes.	3.00	3.36	3.16
7. I can study by myself using online lessons.	2.84	3.29	3.11
8. Sometimes I cannot join online classes because of internet problems.	2.64	2.57	2.95
Blended learning (both online and face-to-face)	**3.26**	**3.42**	**3.59**
9. I learn more when I go to school and study online.	3.32	3.43	3.35
10. I enjoy learning in different ways, like online and classroom.	3.44	3.57	4.00
11. I find it easy to switch from online to classroom learning.	3.24	3.29	3.32
12. I can do my schoolwork better with both teacher help and online tools.	3.04	3.39	3.70
Modular learning (printed modules at home)	**3.08**	**2.98**	**3.13**
13. I can answer my modules by myself.	3.20	3.57	3.62

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14. My parents or older siblings help me with my modules.	2.84	2.32	2.59
15. I finish my schoolwork using printed modules.	2.88	3.18	2.92
16. It is hard for me to learn without a teacher explaining the lesson.	3.40	2.86	3.38

Descriptively, the three grade levels differed in how they assessed the influence of modalities on readiness. Grade 6 pupils reported higher means on several indicators, especially in face-to-face and blended learning, which is consistent with developmental accounts in which older learners show more advanced cognitive and metacognitive skills that help them engage with varied learning environments (Piaget, 1972).

For face-to-face learning, means rose steadily from Grade 4 to Grade 6 on all four items, especially for listening, understanding lessons, and academic performance, in line with Hattie's (2009) emphasis that direct teacher–pupil interaction enhances learning outcomes. Grade 4 pupils' lower scores may reflect ongoing adjustment to structured classroom settings and developing attention skills. For online learning, differences were less pronounced: Grade 5 and Grade 6 pupils reported greater competence in using digital tools than Grade 4 pupils (3.86 and 3.92 versus 3.52); Grade 5 and 6 pupils also rated following online lessons higher than Grade 4, and Grade 4 pupils reported lower self-directed online study (2.84), suggesting that younger learners need more guidance and scaffolding; connectivity problems remained evident in all groups (Means et al., 2013). Blended learning was positively received at all grade levels, with Grade 6 pupils reporting the highest agreement on enjoying varied methods (4.00) and doing schoolwork better with combined approaches (3.70), consistent with Graham (2013).

For modular learning, pupils generally reported being able to work independently, but grade-level patterns differed. Grade 4 pupils reported the greatest reliance on family help (2.84, where a higher score means more help) and more difficulty without teacher explanation (3.40), though Grade 6 pupils' score on the latter was nearly identical (3.38) and Grade 5 pupils' was lowest (2.86). Grade 6 pupils showed somewhat greater independence in answering modules (3.62), supporting Zimmerman's (2002) view that self-regulation develops over time. These patterns are descriptive: the source text described them as a "significant difference" by grade level, but the ANOVA in Table 6 shows that they are not statistically significant.

Table 6. One-Way ANOVA (Single Factor): Assessment of Learning Delivery Modalities by Grade Level

Groups	Count	Sum	Average	Variance
Grade 4	16	49.64	3.10	0.08
Grade 5	16	52.07	3.25	0.18
Grade 6	16	53.81	3.36	0.18

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Source of variation	SS	df	MS	F	p-value	F crit
Between groups	0.5486	2	0.2743	1.8943	0.16223	3.20432
Within groups	6.51616	45	0.1448			
Total	*7.0648*	*47*				

Because the computed *F* (1.8943) was lower than the critical value (3.20432) and *p* (0.1622) exceeded 0.05, the null hypothesis was not rejected: there was no statistically significant difference in the assessment of the influence of learning delivery modalities on academic readiness when pupils were grouped by grade level. Responses of Grade 4, Grade 5, and Grade 6 pupils were therefore statistically comparable, even though group averages rose from 3.10 (Grade 4) to 3.25 (Grade 5) and 3.36 (Grade 6). Age and gender comparisons were not tested in the analysis reported in the thesis, so the hypotheses are evaluated for grade level only.

Pupils' Perspectives on Learning Engagement and Learning Delivery Modalities

Qualitative data from the interviews and FGDs converge with the survey results. Pupils expressed higher engagement in interactive and collaborative environments, particularly in face-to-face and blended learning, and they preferred structured guidance and immediate feedback from teachers. The challenges they described in online and modular learning were lack of motivation, distractions at home, and limited access to technology. These accounts match the quantitative pattern: high readiness where the teacher is present, lower readiness for self-study and connectivity-dependent learning (Items 7 and 8), difficulty learning without teacher explanation (Item 16), and uneven family support (Item 14). In the abstract's terms, online and modular formats were rated lower because of connectivity issues, self-study limitations, lack of direct teacher explanation, and inconsistent home support, despite strong device literacy.

Teachers' Perspectives on the Implementation of Learning Delivery Modalities

Teachers regard face-to-face learning as the most helpful modality, since it lets them interact with pupils immediately, give feedback, clear up misunderstandings, and build strong classroom relationships; they say that in-person instruction improves their ability to evaluate comprehension through verbal and non-verbal cues (Darling-Hammond et al., 2020). They also find face-to-face and blended modalities more effective for content delivery and pupil engagement. Their perspectives on each phase of implementation are summarized in Table 7.

Table 7. Teachers' Perspectives on Preparing, Implementing, and Evaluating Each Learning Delivery Modality

Modality	Before implementation (preparation)	During implementation	After implementation (assessment)
Face-to-face	Structured lessons and materials aligned with class activities make lesson planning more predictable; visual aids, worksheets, and group tasks are prepared	Pupils participate actively, and teachers see their progress in real time; teachers adjust instruction to responses in discussions, group activities, and questions, which supports	Classroom tests, reflections, and direct observation of behavior and engagement; informal classroom conversations yield feedback

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	ahead so that learning goals are clear.	varied lessons and understanding.	that helps refine methods and plan lessons.
Blended	Teachers create digital materials (presentations, online quizzes, interactive modules) that complement class teaching, encouraging creative use of technology and better-organized content (Horn & Staker, 2015).	Synchronous and asynchronous tasks are mixed, e.g., class discussion followed by online homework; digital platforms serve practice and reinforcement, leaving class time for advanced tasks.	Learning management system data show participation, completion, and test performance; this data-driven feedback guides decisions and improvement (Graham, 2019).
Online	Technology readiness and adequate resources are the main problems; teachers may need extensive training in platforms, connectivity, and lesson design, and limited access to reliable technology makes preparation harder (Dhawan, 2020).	Securing participation and interest is difficult; engagement, understanding, and motivation are hard to judge when pupils are absent physically, and some pupils lack connectivity or devices.	Accurate judgment of learning is difficult: cheating, incomplete submissions, and late feedback reduce the reliability of results, and the lack of direct talk limits reflective conversation.
Modular	Teachers spend considerable time creating and testing clear, complete self-learning modules suitable for independent study; preparation is heavy because pupils must understand instructions without teacher help.	Tracking progress and giving timely feedback is hard; with printed modules, teacher–pupil interaction is limited, which can lead to misunderstood instructions or incomplete learning.	Grading is difficult; pupils may rely heavily on family help, complicating the authenticity of responses, and late submission of modules delays the assessment of outcomes.

Teachers also described information and communication technology (ICT) tools, namely educational apps, learning management systems, and collaborative platforms, as very helpful in implementing the modalities because they ease communication and access to resources (UNESCO, 2021). ICT makes learning more interactive through multimedia presentations, virtual simulations, and online discussions; helps pupils become independent learners who access resources and finish tasks at their own pace; and lets teachers track pupils' progress through automated tests and digital analytics, identify learning gaps, and personalize instruction. Across modalities, challenges included adapting instructional materials, managing time, and addressing diverse learner needs; limited training and technological constraints hindered implementation of the online and modular approaches.

Proposed Action Plan

Responding to Research Question 6, the findings point to gaps in learner support, resources, and teacher training, with emphasis on improving infrastructure, instructional strategies, and monitoring systems. Teachers recommended three overarching measures: ongoing training in digital pedagogy and instructional design to build confidence with technology and varied approaches; investment in reliable technology so that pupils have stable internet access, suitable devices, and digital learning platforms; and closer collaboration among teachers,

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administrators, and stakeholders, with progress monitoring, feedback gathering, and sharing of best practices. Table 8 organizes these needs and the interventions proposed in the study.

Table 8. Proposed Action Plan to Address Challenges in Implementing Learning Delivery Modalities

Identified challenge or gap	Proposed action	Lead stakeholders
Technological gaps: unstable connectivity and limited devices in online and modular learning	Invest in reliable technology, stable internet access, suitable devices, and digital learning platforms; improve infrastructure	School administrators
Limited teacher training; heavy preparation of materials; time management	Ongoing training in digital pedagogy, instructional design, and differentiated instruction; teacher training workshops	Administrators; teachers
Weak self-regulation and insufficient learner support	Targeted interventions such as remedial programs and learner support systems; build time-management and independent-study habits; regular feedback in modular and online settings	Teachers; learners
Inconsistent home support in modular and online learning	Parental support to bolster pupils' self-directed study habits	Parents and guardians; teachers
Assessment integrity and delayed feedback	Clear policies and monitoring systems for all modalities; regular feedback to pupils	Administrators; teachers
Sustaining implementation	Regular evaluation and feedback mechanisms; collaboration among teachers, administrators, and stakeholders; sharing of best practices	All stakeholders

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DISCUSSION

Principal Findings

Pupils' overall readiness was moderate (general weighted mean = 3.22, "Sometimes Ready") and varied by modality. Blended learning produced the highest ratings (modality mean 3.37) and face-to-face learning the next highest (3.32), followed by online learning (3.19) and modular learning (3.02) (modality means computed from Table 4). Pupils' readiness was strongest in structured, interactive environments in which a teacher is present, and weakest where learning depended on independence, connectivity, and home support. Grade 6 pupils reported higher descriptive readiness than Grade 4 pupils, but the difference was not statistically significant. Teachers and pupils identified technological gaps, weak self-regulation, intensive preparation of self-learning modules, and assessment-integrity issues as the main implementation challenges.

Interpretation in Light of the Literature

Face-to-face and blended learning. High readiness for face-to-face learning aligns with literature emphasizing that classroom environments foster engagement, immediate feedback, and social interaction (Vygotsky, 1978), and with the finding that direct teacher–pupil interaction enhances outcomes (Hattie, 2009). Pupils' lower confidence in asking questions ($M = 2.77$) signals the need for inclusive participation practices. Blended learning's advantage is consistent with research that blended approaches enhance engagement and achievement by accommodating different preferences and promoting active learning (Graham, 2013) and with the synthesis in Section 1.2, which found blended learning to offer the most balanced mix of structure and flexibility. Teachers' preference for blended and face-to-face modalities echoes the literature on teacher perspectives (Graham, 2006; Garrison & Kanuka, 2004).

Online learning. Strong device literacy ($M = 3.79$) alongside lower readiness for following lessons, self-study, and stable connectivity supports the view that digital literacy is necessary but not sufficient for successful online learning; self-regulation and reliable access also matter (Means et al., 2014; Hodges et al., 2020). The finding agrees with literature on infrastructure and equity barriers (Broadbent & Poon, 2015) and on the difficulty of ensuring integrity in online assessment (Brown, 2016).

Modular learning. The lowest modality mean fits the evidence that modular learning depends heavily on learner autonomy and home support, which may be unevenly available (Dangle & Sumaoang, 2020; Castillo et al., 2021), and on teacher support and feedback (Basilaia & Kvavadze, 2020). Pupils' reports of difficulty learning without teacher explanation, together with teachers' concerns about feedback and the authenticity of responses, correspond to challenges described by Salas and Trinidad (2021) and Cahapay (2020).

Grade level. The upward descriptive trend from Grade 4 to Grade 6 is compatible with developmental accounts of growing cognitive and self-regulatory skills (Piaget, 1972; Zimmerman, 2002), but the absence of a statistically significant difference means the pattern should be treated as tentative. The moderate standard deviations indicate individual differences linked to resources, preferences, and socio-economic conditions, which calls for differentiated strategies and targeted interventions (Tomlinson, 2014).

Implications

The findings imply that, while pupils are generally adaptable, their academic readiness is strongest in the structured, interactive environments of face-to-face and blended learning. Online and modular modalities pose challenges related to independence, engagement, and resource availability. Educational stakeholders should therefore prioritize blended approaches while addressing gaps in digital infrastructure, learner autonomy, and home support systems; doing so can help ensure equitable and effective learning experiences across modalities.

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Engagement is closely tied to interaction, structure, and teacher presence, which are less evident in purely online or modular formats, and teachers' effectiveness depends on adequate training, resources, and institutional support.

Limitations

The study's limits follow from its scope and design. It involved one private Catholic school in Manila within a single academic year, with no longitudinal data, and it addressed academic readiness only, not socio-emotional, spiritual, or extracurricular development. The design was descriptive and correlational, with no experimental intervention, so findings describe pupils' perceived readiness and do not establish causation. Results cannot be generalized beyond the school. Because the ANOVA treated the 16 item means in each grade as observations rather than individual pupils' scores, it should be read as exploratory. Readiness was self-reported by young pupils rather than measured through performance indicators, and comparisons by age and gender were not tested.

Conclusions

Within these limits, the study concludes as follows:

1. Pupils' academic readiness differed across learning delivery modalities, with blended and face-to-face learning emerging as the most supportive and online and modular learning receiving lower ratings.

2. Learner characteristics, particularly grade level, showed a descriptive pattern of higher readiness in the upper grades, but the difference was not statistically significant.

3. Engagement is closely tied to interaction, structure, and teacher presence, which are less evident in purely online or modular formats.

4. Teachers play a critical role, but their effectiveness depends on adequate training, resources, and institutional support.

5. A one-size-fits-all approach is ineffective; a combination of modalities tailored to learner needs yields better outcomes.

Recommendations

For schools and administrators. Strengthen the implementation of blended learning as a balanced and flexible approach; invest in technological infrastructure and learning resources to support online learning; and develop clear policies and monitoring systems for all learning modalities.

For teachers. Take part in continuous professional development on digital pedagogy and differentiated instruction; incorporate interactive, learner-centered strategies to enhance engagement across modalities; and provide regular feedback and support to learners, especially in modular and online settings.

For learners. Develop self-regulated learning skills such as time management and independent study habits, and participate actively in all learning activities regardless of modality.

For parents and guardians. Support pupils' home study routines, particularly in modular and online learning, to bolster self-directed study habits.

For future research. Conduct longitudinal studies to assess long-term effects of delivery modalities, and explore additional variables such as socioeconomic status, parental support, and access to technology.

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Proposed action plan. Implement targeted interventions such as remedial programs, learner support systems, and teacher training workshops, and establish regular evaluation and feedback mechanisms to improve implementation continuously (see Table 8).

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