Jurnal Ilmiah Desain Komunikasi Visual Seni Rupa dan Media

p-ISSN: 2721-3927, e-ISSN: 2721-3919
Vol.6, No.3, 2025, pp: 174-188
http://doi.org/10.38010/deskomvis.v6i3.160
Published by: Asprodi DKV
(Asosiasi Program Studi Desain Komunikasi Visual Indonesia)

From context to interface: Contextual user experience in three student UI/UX projects

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File info
Received:
25/01/2026
Final Revision:
22/02/2026
Accepted:
10/03/2026

Keywords:
User interface design;
user experience design;
contextual user experience;
experience-centered design;
design education

Abstract:
The design of user interface and user experience (UI/UX) can function not only as a means of aesthetics and navigation, but also as a medium for understanding user behaviour and needs within specific contexts of use. This article offers a reflective multiple-case analysis of three undergraduate digital application design projects that adopt context-based approaches to address functional, social and emotional issues faced by their users. Drawing on human-centered design standards and contextual user experience concepts, the study examines how each project configures users, tasks and environments, and how experience-centered design perspectives are mobilised to shape affective qualities such as safety, reassurance, productivity and community engagement. Using documentation of the design process, design artefacts and final reports, the analysis shows how observation, interviews, persona and journey mapping, and prototype testing enabled students to surface patterns of interaction, latent needs and contextual constraints that informed their interface decisions. The findings argue that a deep understanding of context of use and lived experience is crucial for generating UI/UX solutions that are not only usable and visually coherent, but also empathetic, inclusive and aligned with users' everyday practices. In the realm of design education, the study suggests that treating UI/UX projects as sites for contextual and experience-centered inquiry can strengthen students' reflective capacities and position interface design as a research-driven strategy for mediating relationships between humans and technology.

Introduction

In today's digital era, mobile applications have become an integral part of daily human interaction with technology. This development drives the need for user interface (UI) and user experience (UX) design that is not only visually appealing, but also capable of deeply understanding user behavior, needs, and context. UI/UX is no longer merely an aesthetic instrument or navigation tool; it has evolved into an analytical medium that allows designers to interpret users' situations across various social, emotional, and cultural backgrounds (Bødker, 2015; Garrett, 2011; Lidwell et al., 2023). Previous studies have highlighted the conceptual distinction between UI as interface structure and UX as holistic user perception shaped by interaction change (Joo, 2017).

In advanced UI/UX design, a user-centered approach or Human-Centered Design (HCD) emphasizes the importance of empathy and contextual understanding throughout the design process. HCD directs designers to view technology as a system that must adapt to humans, not the other way around (Norman, 2013). Through methods such as field observation, interviews, persona creation, and prototype testing, the design process can uncover use-case dynamics that are not always visible on the

surface. In recent UX discourse, this human-centered perspective has increasingly been reframed through notions of contextual user experience and experience-centered design, which foreground the situated, affective, and value-laden nature of interaction with technology (McCarthy & Wright, 2004).

However, in the context of design education—particularly in student final projects—the reflective aspect of the design process is often not systematically documented. Students are commonly focused on the product as a visual output, while exploratory and argumentative considerations in design decisions receive comparatively less emphasis. In fact, design practices that engage with contextual user research can serve as a crucial avenue for cultivating sensitivity to the complexities of user needs (Goodwin, 2009; Preece et al., 2002).

This issue becomes particularly significant when viewed through the lens of experience-centered design. McCarthy & Wright (2004) argue that experience is not merely a functional outcome, but a structured, affect-rich phenomenon involving anticipation, engagement, reflection, and appropriation over time. Such a perspective requires designers to articulate how emotional tone, narrative progression, and contextual meaning are intentionally constructed within an interface. However, in many student projects, while user research activities such as interviews or persona creation are conducted, the translation of these insights into an explicit experiential rationale often remains implicit. The reflective dimension, how contextual findings shape affective qualities such as reassurance, urgency, productivity, or immersion, is rarely documented systematically.

As a result, there exists a pedagogical gap between performing user-centered methods and critically interpreting their experiential implications (Meyer & Norman, 2020). Without an analytical lens that integrates context of use (International Organization for Standardization, 2019) and lived experience (McCarthy & Wright, 2004), UI/UX projects risk being evaluated primarily on visual coherence or functional completeness rather than on the quality of contextual mediation they produce. This study therefore positions contextual and experience-centered frameworks as reflective tools to re-read student work, making visible the reasoning structures that connect user research, interface decisions, and experiential outcomes.

This study reviews three final projects from undergraduate students in Visual Communication Design Department, Universitas Pembangunan Jaya, each focusing on digital application design using a context-based approach. These three projects address diverse themes—ranging from emergency and safety-related apps to community-based collaborative work support apps, and apps facilitating emotional expression and self-introspection. Although thematically different, all three share a commonality in utilizing design methods to identify and respond to user needs.

Based on this, several key problems arise. First, how can UI/UX design practices in student final projects serve as a tool to understand user behavior contextually? Second, to what extent do the design methods employed in each project reveal latent user needs and produce relevant, context-adaptive solutions?

To answer these questions, this study aims to reflect on the UI/UX design processes within student final projects as a medium for deeper understanding of user needs by reading these projects through the lenses of contextual user experience and experience-centered design, in addition to established human-centered and interaction design frameworks. Furthermore, it seeks to identify how context-based design approaches contribute to user experiences that are not only functional but also empathetic and inclusive.

Through reflective analysis of these three case studies, the study hopes to generate new insights on how design education can position UI/UX not just as a visual production aid, but as a research and communication strategy that bridges humans and technology. This approach could also enrich final project practices by fostering greater awareness of the social and cultural dynamics inherent in every user's digital interaction.

Contextual user experience

User experience in interaction design is increasingly understood as fundamentally contextual rather than abstract or universal (Lallemand et al., 2015). Context of use refers to the constellation of users, goals, tasks, resources, and environments—technical, physical, social, cultural, and temporal—in which an interactive system is encountered (International Organization for Standardization, 2019). In this view, there is no such thing as usability or experience "in general"; instead, effectiveness, efficiency, and satisfaction are always realized in a specified context of use that shapes what counts as success or failure for a given interface (International Organization for Standardization, 2019; IxDF, 2024). For mobile and ubiquitous applications, this includes not only device constraints, but also situational factors such as time pressure, safety concerns, social presence, and emotional state during interaction (IxDF, 2024; Spillers, 2024).

Human–centered design standards formalize this contextual perspective into an iterative process. ISO 9241-210 defines human-centered design as an approach that aims to make systems usable and useful by grounding design decisions in an explicit understanding of users, tasks, and environments, involving users throughout, and continuously refining solutions through user-centered evaluation (International Organization for Standardization, 2019; NIST, 2021). Rather than treating context as a static background, the standard encourages designers to document and analyze how users are expected to carry out activities in real settings, and to use these descriptions both as design input and as criteria for subsequent testing (ISO, 2019). In practice, this has led UX teams to integrate field research, contextual inquiry, personas, and scenarios to capture contextual constraints and opportunities, especially for mobile, safety-critical, or community-based applications (IxDF, 2024; Spillers, 2024).

From a design standpoint, contextual UX implies that interfaces must be responsive to the situational demands of use, rather than offering a single, neutral mode of interaction. For example, time-sensitive or risk-laden situations may require simplified flows, reduced cognitive load, and clear affordances for immediate action, whereas reflective or exploratory contexts can support richer information density and slower, narrative-oriented engagement (Spillers, 2024). In addition, the same core functionality may need to be articulated differently across contexts—such as everyday task management, emergency assistance, or leisure and fandom—so that users perceive the system as aligned with their goals, routines, and vulnerabilities in each setting. Designing for contextual UX therefore means designing not just screens, but patterns of interaction that adapt to and make sense within the lived circumstances of use.

Experience-centered design

Experience-centered design extends this contextual perspective by framing interaction with technology as part of a broader "felt life" rather than a purely instrumental problem–solution sequence. McCarthy & Wright (2004) argue that any account of user experience must integrate emotional, intellectual, and sensual aspects of interaction: people do not merely use technology; they live with it as part of ongoing activities, relationships, and self-understandings. Drawing on pragmatist philosophy, they conceptualize technology as experience, emphasizing that engagements with interactive systems involve anticipation, engagement, reflection, and appropriation over time, and that these phases are saturated with feelings such as anxiety, relief, boredom, enjoyment, or empowerment (McCarthy & Wright, 2004).

Within this approach, the role of design is not limited to optimizing task completion, but to shaping the narrative and aesthetic qualities of experience. Aesthetics, in this sense, includes the visual and interactive form of an interface, but also the atmosphere it creates—whether calming, urgent, playful, or serious—and how this atmosphere supports or undermines users' values and identities (Hallnäs & Redström, 2002; McCarthy & Wright, 2004). Experience-centered design, therefore, invites designers to ask not only "Can users do what they need to do?" but also "What kind of experience are they having while doing it?" and "How does this experience matter in their lives?" (Forlizzi & Battarbee,

2004). This perspective is particularly relevant for applications that deal with safety, vulnerability, or community, where the affective tone of interaction—such as reassurance, trust, or excitement—can be as consequential as functional performance.

Methodologically, experience-centered design complements human-centered design by reinterpreting familiar tools—personas, scenarios, journey maps, prototypes—as ways of engaging with users' stories, emotions, and values rather than only their functional requirements. For instance, McCarthy & Wright (2004) propose analyzing technology use through components such as compositional (structure of the experience), sensual (bodily and perceptual qualities), emotional, and spatio-temporal aspects, which can be surfaced through narrative interviews, probes, and situated evaluations. Likewise, contemporary UX practice often uses contextual inquiry and longitudinal studies to understand how experiences unfold across different touchpoints, episodes, and social situations (Forlizzi & Battarbee, 2004; IxDF, 2024). Taken together, human-centered and experience-centered perspectives offer a theoretical basis for reading UI/UX projects not only as solutions to discrete problems, but as designed mediations of everyday experience in specific social and cultural contexts.

Methods

This study adopts a reflective qualitative approach using a multiple-case study method. The objects of analysis include three undergraduate final projects that developed digital applications focused on UI/UX design. The primary goal is to understand how UI/UX design practices function as a learning medium to interpret users' needs, behaviors, and contextual situations—highlighting not only the visual output, but also the designers' reflective thinking processes as learners.

The methodological framework refers to Donald Schön's (1984) concepts of *reflection-in-action* and *reflection-on-action*, which position design to build understanding of complex, ambiguous, and problem-based situations. This is supported by Lawson's (2005) view that design is a problem-solving activity shaped by experience, intuition, and contextual learning.

Data analysis draws from documentation of the design process (supervision logs, reflection notes, design artefacts such as personas, wireframes, user journeys, and prototypes), as well as reading the design narrative in each final report. An interpretative approach is applied to identify the dynamics between user understanding, problem framing, and the resulting visual solution.

To structure the design flow, the Double Diamond Model (Design Council UK, 2005) is used, along with Garrett's (2011) *The Elements of User Experience*, which helps to trace how students organized design decisions across layers: strategy, scope, structure, skeleton, and surface. To examine user orientation, this study incorporates participatory design principles (Spinuzzi, 2005) and the *Design for Experience* approach (McCarthy & Wright, 2004) to explore affective, meaningful, and value-based aspects of user interaction.

This approach also positions final projects as a form of studio-based learning, where students engage in iterative, experimental, and critically reflective processes involving real or simulated users. As such, the methodology not only dissects the design process but also explores how UI/UX practices serve as a multidimensional learning space within design education.

In analytical terms, the three projects are examined with particular attention to how they configure context of use—users, tasks, environments, and situations—consistent with human-centered design standards (ISO, 2019), and how they construct user experience as an unfolding, affective and narrative phenomenon, following experience-centered design perspectives (McCarthy & Wright, 2004).

Case Selection Criteria

The three cases were selected using purposive sampling to ensure analytical variation and pedagogical relevance. The selection was guided by five criteria. First, each project represents a distinct domain of application—productivity management (Taskly), public safety and protection (DARA), and entertainment-community engagement (Byon Combat Pro)—allowing cross-case comparison across materially different contexts of use (International Organization for Standardization, 2019; IxDF, 2024). Second, the projects demonstrate variation in situational characteristics: temporally fragmented routines, risk-laden mobility in public space, and leisure-oriented media consumption. This contextual diversity enables examination of how UI/UX strategies adapt to different environmental, emotional, and social conditions. Third, all three projects applied structured UX methods, including persona development, contextual inquiry, journey mapping, and prototype testing, providing comparable analytical artefacts across cases. Fourth, each project documented its design process through supervision logs, reflection notes, and iterative design revisions, enabling reflective analysis consistent with studio-based and reflective practice traditions (Lawson, 2005; Schon, 1984). Finally, the projects were selected because they reached a comparable level of completion and evaluation within the same academic period, ensuring methodological consistency while maintaining contextual contrast.

By selecting cases that vary in domain yet share comparable methodological rigor, this study seeks to enhance analytical depth rather than statistical generalization, consistent with qualitative multiple-case study logic (Stake, 2006; Yin, 2017).

Analytical Procedure & Interpretative Coding

To increase analytical rigor, the study employed a structured interpretative procedure across the three cases. The analysis proceeded in four stages. **First**, contextual variables were extracted from each project's documentation, including explicit descriptions of users, tasks, environments, constraints, and emotional conditions derived from interviews, personas, journey maps, and supervision logs. These elements were coded as contextual markers consistent with ISO 9241-210's emphasis on users, tasks, and environments within a specified context of use (International Organization for Standardization, 2019).

Second, design artefacts (wireframes, prototypes, visual systems, interaction flows) were mapped against Garrett's (2011) five planes of user experience—strategy, scope, structure, skeleton, and surface to trace how contextual findings informed layered design decisions. This allowed identification of correspondences between research insight and interface configuration.

Third, experiential qualities were interpreted through the lens of experience-centered design (McCarthy & Wright, 2004), particularly focusing on emotional tone, spatiotemporal framing, and narrative structuring of interaction. Codes were generated to identify affective intentions such as reassurance, control, urgency, immersion, or social belonging, and how these were materially expressed through visual and interaction strategies.

Finally, a cross-case comparative matrix was developed to examine patterns and contrasts across the three projects. This matrix enabled identification of recurring methodological structures as well as domain-specific variations in contextual adaptation. Rather than aiming for statistical generalization, the analysis sought analytical generalization by identifying transferable design reasoning patterns across cases (Yin, 2017).

This layered interpretative process ensures that the reading of each project moves beyond descriptive summary toward a systematic alignment between user research, theoretical framing, and interface outcomes.

Results and Discussion

The three final projects examined in this study are digital application design initiatives grounded in context-based user interface and user experience (UI/UX) design. Each project focuses on a distinct issue and targets a specific user group, yet they share a common thread: the use of participatory and iterative design methods to understand user needs.

From a contextual UX perspective, each project can be understood as articulating a specific context of use: the temporally fragmented routines of students and young professionals, the risk-laden mobility of urban women in public space, and the leisure- and fandom-oriented practices of media audiences (International Organization for Standardization, 2019; IxDF, 2024). Framing the cases in this way allows the analysis to move beyond surface functionality and examine how designs negotiate situational demands, emotional states, and social dynamics.

The first project, *Design of the Taskly Application as a Daily Task Management App for Students and Young Professionals* by Farhan Khaliq Adirajasa, aims to help users organize and monitor their tasks efficiently through an intuitive and structured system that adapts to flexible work patterns. The second project, *Design of "DARA" a Community and Location-Based Women's Protection Application* by Ayuningtyas Diani Safira (Safira, 2025), focuses on women's safety and protection in public spaces, providing quick reporting features and social network support. The third project, *Design of the Byon Combat Pro Application as a Streaming Media and Community Platform for Action Genre Enthusiasts* by Muhammad Reinhart Adira (Adira, 2025), centers on developing interactive entertainment features with a recommendation system and community engagement for users who share an interest in action and combat films.

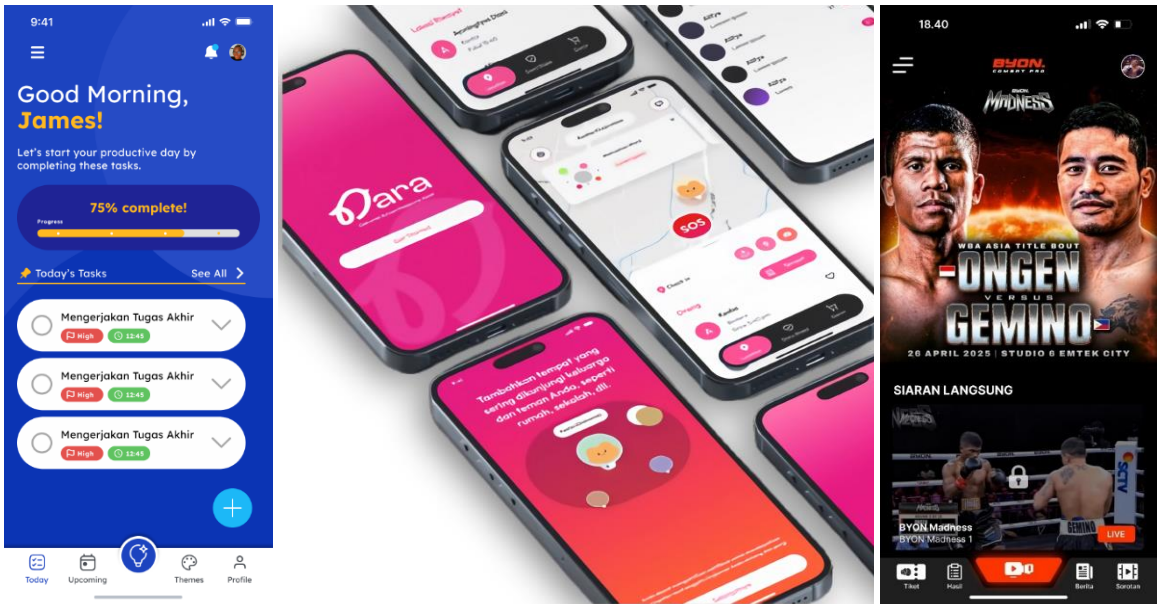

Figure 1 Screenshot of the Apps Studied, Taskly (left), DARA (center), and BYON Combat Pro (right)

These three projects as shown in Figure 1 form the analytical basis for the following discussion, structured around four dimensions: contextual framing, user behavior, design solution, and methodological relevance.

Context Characteristics and User Targeting

The three final projects examined in this study demonstrate varied approaches in understanding context and user needs, depending on the primary function of the designed applications.

The *Taskly* project by Farhan focuses on daily task management for productive-age users, primarily students and freelance workers who follow flexible work patterns yet struggle with maintaining consistent productivity. User data was collected through online questionnaires and brief interviews, resulting in two primary personas: one representing user prone to procrastination and another representing multitasking users with dense schedules (see: Figure 2). User behavior in this context reflects a need for reminders, progress visualization, and task grouping flexibility—aligned with the principles of goal-oriented design (Shaftersbuty, 2001) while also reflecting a contextual UX concern with fragmented attention, time pressure, and the need to offload cognitive load onto external representations of tasks (IxDF, 2024).

Figure 2 Taskly User Persona

Diani's *Dara* application project centers on the safety and public space experiences of women. The primary target is urban-dwelling women aged 20–35 with high mobility. In-depth interviews were conducted with female respondents who had experienced public harassment, supported by online surveys to gather broader experiences. These insights were translated into an empathy map and a customer journey map (see Figure 3), which revealed fear, the need for rapid protection, and social support as central themes shaping the interface design. The use of empathetic design strategies following Norman (Norman, 2013) informed emotionally responsive features. From an experience-centered standpoint, these themes point to safety, trust, and reassurance as core experiential qualities the application must stage, not merely functions it must provide (Forlizzi & Battarbee, 2004; McCarthy & Wright, 2004).

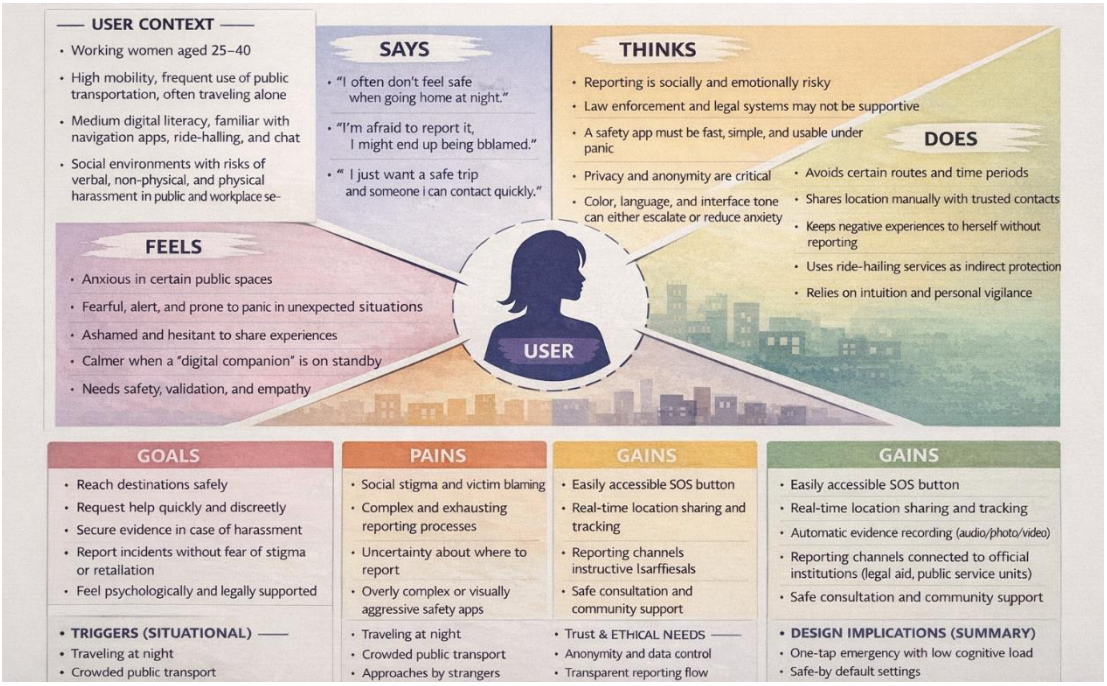

Figure 3 Empathy Map of "DARA" Apps

Meanwhile, *Byon Combat Pro* by Reinhart addresses the needs of teenagers and young adults who are fans of action and combat films. The target users are aged 16–25, actively using streaming platforms, yet seeking features such as genre-specific rating systems, personalized recommendations, and fan community engagement. This segmentation was derived through a viewing habits survey and observation of users on comparable platforms (see Figure 4). Drawing from the concept of user experience as narrative by McCarthy & Wright (2004), Reinhart mapped how the viewing experience could be enriched through design supporting exploration, emotional connection, and community involvement. This narrative-oriented view resonates with broader experience-centered accounts of how media technologies support identity work and belonging in fan communities, where shared affect and ongoing social interaction are as important as access to content (Forlizzi & Battarbee, 2004).

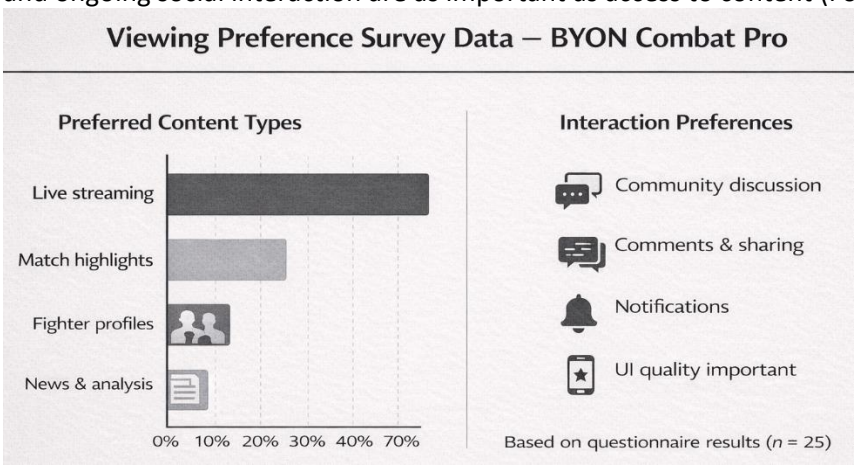

Figure 4 Viewing Preference Survey Data for BYON Combat Pro

All three projects demonstrate that contextual understanding goes beyond identifying user demographics and needs—it includes comprehending routines, lived challenges, and digital solution responsiveness (see Table 1). Context-driven approaches, as advocated by human-centered design standards and revent UX literature on context of use (IDEO.org, 2015; International Organization for

Standardization, 2019), serve as a critical foundation for shaping design directions that are not only functional but also relevant and empathetic to users' real-life conditions.

Table 1 Comparison of User Context and Characteristics Across the Three UI/UX Design Projects

Aspect	Taskly (Farhan)	Dara (Diani)	Byon Combat Pro (Reinhart)
Application Type	Daily task management application	Women's safety and protection application	Action-genre streaming and community application
Primary Function	Organizing and monitoring daily tasks	Supporting safety and protection in public spaces	Providing entertainment and community engagement
Target Users	Students and young professionals (18–30)	Urban women (20–35)	Teenagers and young adults (16–25)
Usage Context	Flexible schedules, multitasking, productivity management	High mobility in public spaces, safety concerns	Leisure, media consumption, fandom interaction
Data Collection Methods	Online questionnaires; brief interviews	In-depth interviews; online surveys	Viewing habit surveys; competitor observation
User Modeling Techniques	Persona-based segmentation	Empathy map; customer journey map	Preference-based user segmentation
Key User Needs	Reminders; progress visualization; task flexibility	Rapid protection; emotional reassurance; community support	Personalized recommendations; genre-specific ratings; community features
Theoretical References	Goal-oriented design (Cooper et al., 2014)	Empathy-based design (Norman, 2013)	User experience as narrative (McCarthy & Wright, 2004)

User Context and Needs Characteristics

Each project begins its design phase with an exploration of user context and segmentation through a combination of field observations, literature review, and persona development based on collected data. In the case of the *Taskly* app (Farhan Khaliq), the target users include university students and young professionals who lead multitasking routines under pressure to remain productive within fluctuating and limited time frames. The needs analysis indicates that users require a task management system that is responsive to irregular daily work rhythms, offering easily readable schedule visualization and an intuitive task prioritization feature.

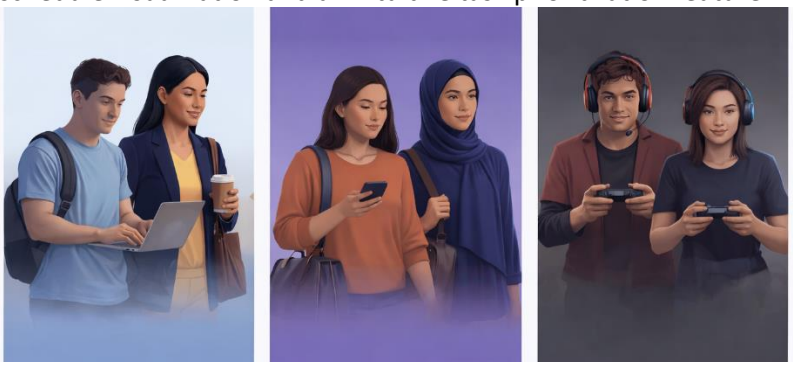

Figure 5 User Segmentation Visualization across Three Applications

Meanwhile, Diani's application responds to the needs of urban women for safety in both public and private spaces. Through interviews and situational analysis, the user experience is shown to be filled with emotional burdens, uncertainty, and a need for fast access to assistance or community-based support. Such patterns can be read as a demand for experiences of reassurance, control, and recognition, which experience-centered design explicitly foregrounds as design objectives rather than incidental side-effects (McCarthy & Wright, 2004). Users require not only reporting functions but also interfaces that offer a sense of control, privacy assurance, and socially trusted networks.

In Reinhart's *Byon Combat Pro* project, the user context includes fans of action and combat content who have high expectations for personalization features, discussion communities, and immersive visual experiences. Interview data reveals users seek tailored content recommendations, internal rating systems, and interactions with fellow viewers to strengthen the sense of community. In this sense, Byon Combat Pro aligns with recent accounts of UX that emphasize social relatedness and participation as key experiential outcomes, especially in entertainment and platform-based media environments (Forlizzi & Battarbee, 2004).

Table 2 Key User Needs Mapping per Project Based on Field Insights

Project	Primary User Context	Core User Needs	Key UX Emphases	Design Implications
Taskly	University students and young professionals with irregular schedules and high multitasking demands	Clear task prioritization; flexible schedule management; quick task input; readable overview	Efficiency, clarity, low cognitive load	Modular layout; strong visual hierarchy; fast interaction patterns; minimal visual noise
DARA	Urban women navigating public and private spaces with safety risks	Fast access to safety tools; discreet reporting; privacy and data control; reassurance	Control, trust, emotional calm, protection	One-tap actions; calming visual language; anonymized flows; transparent system feedback
Byon Combat Pro	Fans of action and combat content seeking immersive entertainment	Personalized content recommendations; social interaction; discussion spaces; engagement	Immersion, social relatedness, personalization	Rich visual experience; community-driven features; adaptive content systems; participatory UX

Visual Findings and Interaction Strategies

The three projects each demonstrate distinct visual approaches, carefully aligned with the specific context and characteristics of their users. In Farhan's *Taskly* application, the interface prioritizes readability and visual hierarchy. Neutral color tones with strong accents are used to distinguish task priorities. A modular grid system and minimalist iconography support rapid navigation, catering to multitasking users with limited interaction time. These visual choices support a calm, legible atmosphere that reduces perceived complexity and supports focused engagement, consistent with experience-centered accounts of how visual form shapes users' feelings of control and clarity (Hallnäs & Redström, 2002). The interaction design is optimized through features like drag-and-drop rescheduling and time-based contextual notifications.

Farhan explicitly references Norman's (2013) principles of *simplicity*, *affordance*, and *consistency* as foundational to his application's interaction structure. A key passage in his report states: *"the simplicity of the interface is a strategy to make users feel in control of their task burden."* This

theoretical application is reflected in the avoidance of complex visual elements and the use of subtle micro-interactions that do not disrupt users' cognitive flow.

In the prototype testing phase (Figure 6), several usability adjustments were made following user feedback. Early low-fidelity prototypes revealed that users found the initial task categorization menu visually dense and cognitively demanding. Participants reported confusion when distinguishing between priority labels and deadline indicators. In response, the designer simplified the hierarchy by separating visual coding for urgency and category, reducing color saturation, and introducing clearer spacing within the task card layout. This adjustment reduced misinterpretation during usability walkthrough sessions and reinforced the principle of reducing cognitive load in time-pressured contexts.

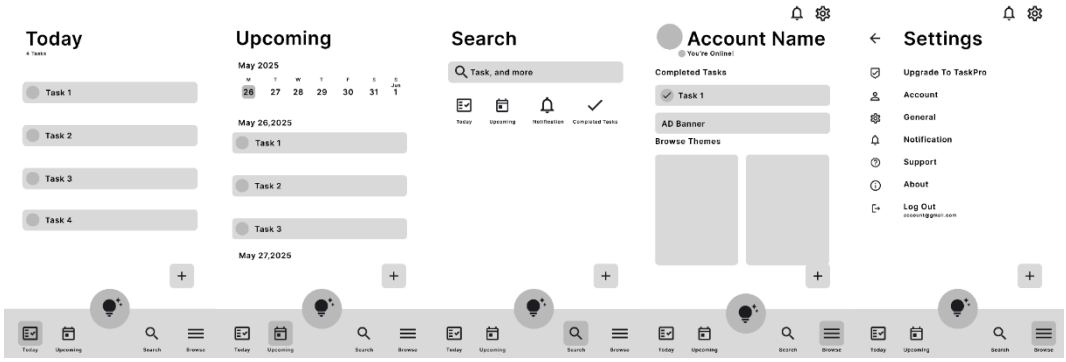

Figure 6 Prototype Testing Phase of Taskly

Additionally, drag-and-drop rescheduling was refined after users indicated hesitation in understanding the affordance. Visual cues and micro-animation feedback were added to communicate interactivity more explicitly (Figure 7). These iterative refinements demonstrate how contextual insight into fragmented routines directly shaped interface behavior (Hornbæk & Hertzum, 2017).

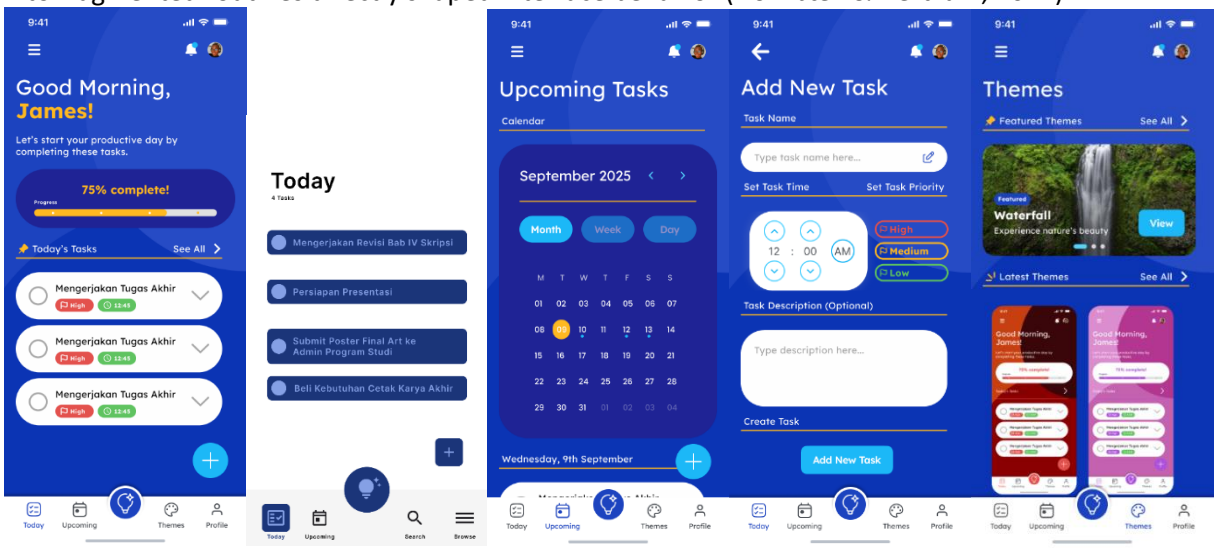

Figure 7 Screenshots of Taskly Apps

In Diani's application, the visual strategy centers on empathy. Soft tones like light pink and violet, character-based illustrations, and a supportive visual language characterize the design. Here, the interface aesthetic functions as an affective surface that must communicate care, seriousness, and psychological safety, which is central to experience-centered work on applications dealing with vulnerability and risk (McCarthy & Wright, 2004). User interactions are facilitated through quick-access features, a panic button, and community integration, with navigation logic emphasizing privacy. Direct

feedback and multi-layered confirmation mechanisms are implemented to safeguard against input errors.

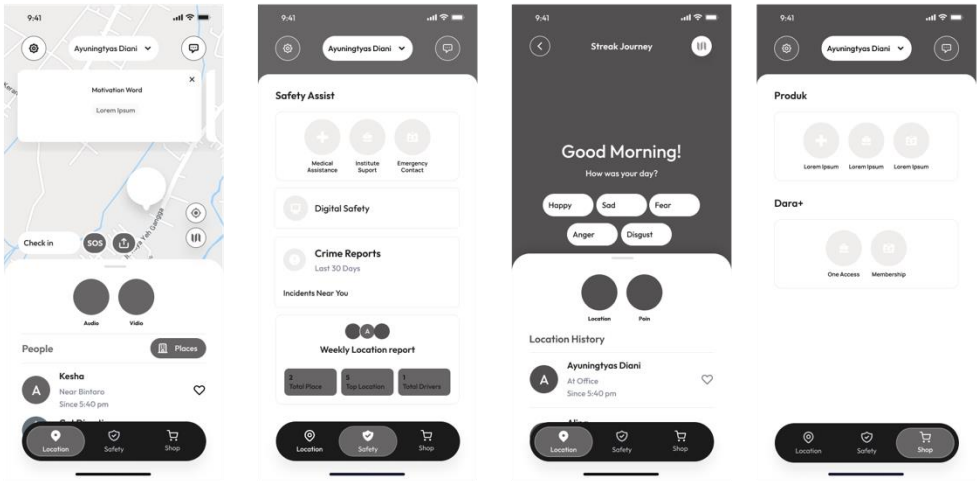

Figure 8 Low-fi Version of DARA

Prototype testing in DARA (Figure 8) focused particularly on emergency interaction scenarios. During simulation sessions, several participants indicated uncertainty regarding the placement and visibility of the panic button in earlier iterations. Some users hesitated before activating the feature, expressing concern about accidental triggering. Based on this feedback, the panic button was repositioned to a more prominent but visually distinct location, accompanied by a two-step confirmation mechanism designed to balance speed and safety.

Furthermore, feedback from interview participants suggested that overly decorative visual elements reduced the seriousness of the application's purpose. Consequently, illustrative components were refined to maintain warmth while strengthening clarity and urgency in critical interaction states (Figure 9). These adjustments reflect how affective expectations—reassurance, trust, and control—were negotiated through iterative design decisions.

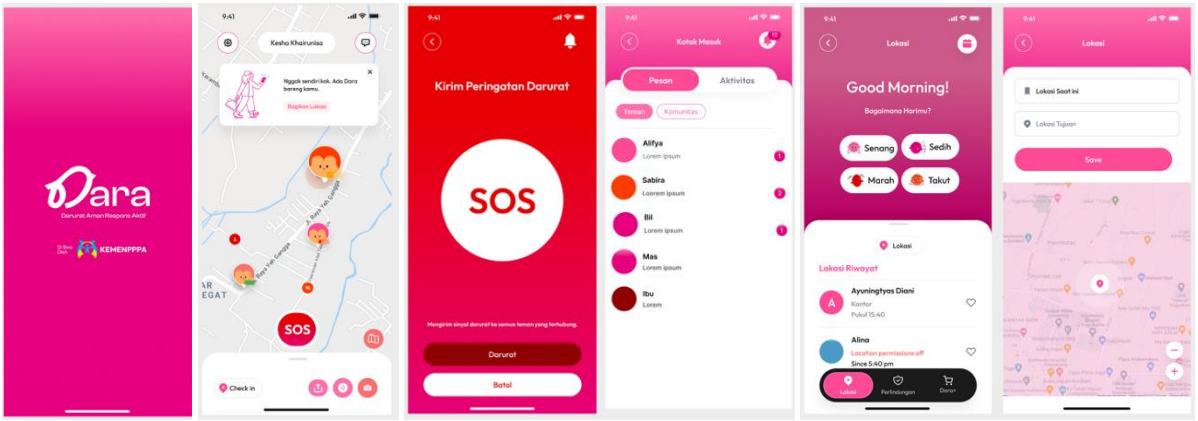

Figure 9 Screenshots of DARA Apps

Reinhart's *Byon Combat Pro* emphasizes a dynamic and immersive visual style, utilizing high-contrast typography, a dominant dark color palette, and motion elements as key visual attractions. The dark, high-contrast palette and motion cues contribute to a 'spectatorial' atmosphere aligned with combat-sports branding, amplifying excitement and anticipation as key experiential qualities rather than neutral background styling (Hallnäs & Redström, 2002). Its interaction strategy focuses on personalization and community engagement, with features such as voting, live chat, and user ranking

systems. Button placements and navigation are adaptive to the habits of entertainment app users, emphasizing engagement and exploration.

In the Byon Combat Pro project, prototype walkthroughs with target users revealed that the initial rating interface was perceived as too similar to mainstream streaming platforms, reducing the sense of community differentiation (Figure 10). Users expressed interest in more visible peer engagement indicators. As a result, the rating system was redesigned to include community-based ranking metrics and highlighted trending discussions to increase perceived social presence.

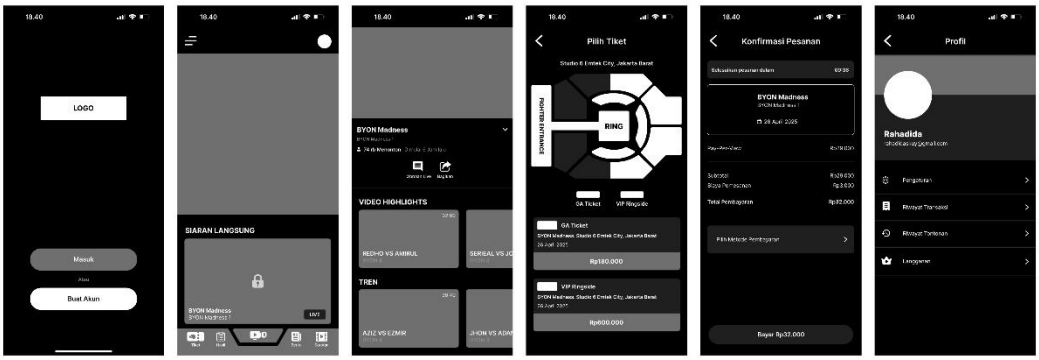

Figure 10 Low-fi Version of BYON Combat Pro

Additionally, navigation flow between content viewing and community discussion was streamlined after feedback indicated that switching between these sections felt fragmented. Integrating contextual shortcuts and persistent access to discussion threads strengthened continuity of experience. These refinements demonstrate how narrative and participatory aspects of experience were progressively embedded into the interface structure (Figure 11).

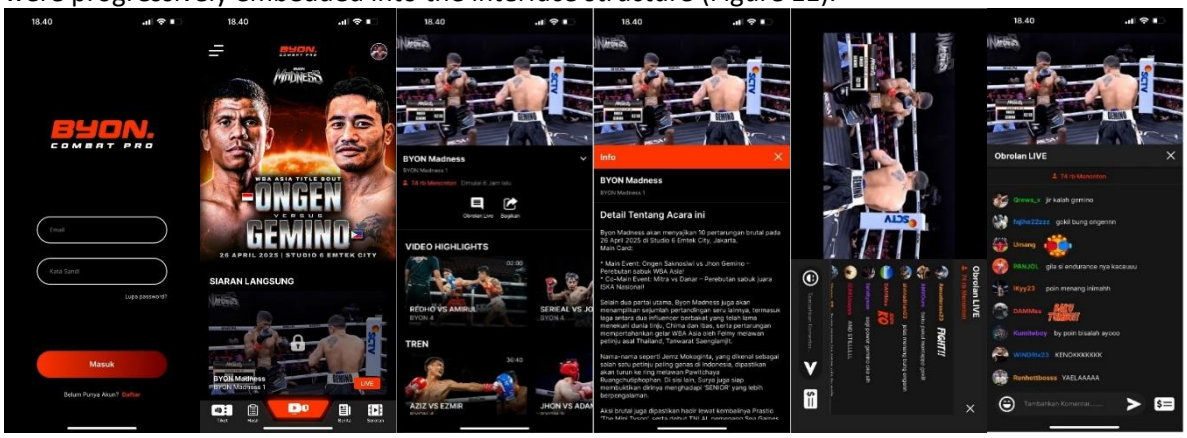

Figure 11 Screenshot of BYON Combat Pro Apps

Conclusion

The comparative analysis of the three student UI/UX projects demonstrates how user context, behavioral insight, and emotional needs critically shape both visual strategy and interaction design. Each project reflects an understanding of users not as abstract categories, but as real individuals situated within specific socio-psychological environments—ranging from task-heavy daily routines to safety anxieties, to entertainment-driven social dynamics. The design solutions across the applications exhibit coherent translation of these needs into interface logic, visual identity, and interaction flows.

Beyond stylistic diversity, the success of these works lies in their methodological alignment: early-stage user research, persona development, iterative prototyping, and the intentional application

of UX principles (e.g., Norman's design psychology) were all employed to substantiate design decisions. Collectively, these projects emphasize that user experience design is not merely a matter of aesthetics or function, but a contextualized practice rooted in empathy, responsiveness, and strategic clarity. Viewed through the combined lenses of contextual UX and experience-centered design, these projects demonstrate how even student work can move beyond generic usability to articulate situated, affect-rich experiences that are tightly coupled to users' everyday practices and constraints.

Despite its contributions, this study has several limitations. First, the analysis is limited to three undergraduate projects within a single institutional context, which restricts the range of contextual and pedagogical variation that can be observed. Second, the study relies primarily on documented design processes and artefacts rather than longitudinal observation of post-implementation user interaction. Although prototype testing was conducted, the evaluation remains situated within an academic studio environment and does not extend to large-scale or long-term user validation. Third, the interpretative analysis is shaped by the researcher's dual role as lecturer and reviewer, which may influence analytical framing despite efforts to maintain systematic comparison.

Future research may expand this line of inquiry by incorporating a larger sample of UI/UX projects across multiple institutions to enable broader contextual and curricular comparison. Longitudinal studies that track how student-designed applications evolve after implementation could further clarify the relationship between contextual framing and sustained user engagement. In addition, integrating mixed-method approaches that combine quantitative usability metrics with qualitative experiential analysis may strengthen empirical validation of context-adaptive and experience-centered design claims within design education.

References

Adira, M. R. (2025). *Perancangan antarmuka pengguna aplikasi "BYON COMBAT PRO" untuk penggemar combat sports*. [Skripsi sarjana, Universitas Pembangunan Jaya].

Bødker, S. (2015). Third-wave HCI, 10 years later: Participation and sharing. *Interactions, 22*(5), 24–31. https://doi.org/10.1145/2804405

Forlizzi, J., & Battarbee, K. (2004). Understanding experience in interactive systems. In *DIS 2004: Designing interactive systems: Across the spectrum* (pp. 261–268). https://doi.org/10.1145/1013115.1013152

Garrett, J. J. (2011). *The elements of user experience: User-centered design for the web and beyond*. New Riders.

Goodwin, K. (2009). *Designing for the digital age: How to create human-centered products and services.* Wiley Publishing.

Hallnäs, L., & Redström, J. (2002). From use to presence: On the expressions and aesthetics of everyday computational things. *Interactions, 9*(4), 11–12. https://doi.org/10.1145/543434.543441

Hornbæk, K., & Hertzum, M. (2017). Technology acceptance and user experience: A review of the experiential component in HCI. *ACM Transactions on Computer-Human Interaction, 24*(5). https://doi.org/10.1145/3127358

IDEO.org. (2015). *The field guide to human-centered design*.

International Organization for Standardization. (2019). *ISO 9241-210:2019: Ergonomics of human-system interaction—Part 210: Human-centred design for interactive systems* (2nd ed.). https://www.iso.org/standard/77520.html

Interaction Design Foundation. (2024). *What are contexts of use?* https://www.interaction-design.org/literature/topics/contexts-of-use

Joo, H. (2017). A study on understanding of UI and UX, and understanding of design according to user interface change. *International Journal of Applied Engineering Research, 12*(20), 9931–9935.

Lallemand, C., Gronier, G., & Koenig, V. (2015). User experience: A concept without consensus? Exploring practitioners' perspectives through an international survey. *Computers in Human Behavior, 43*, 35–48. https://doi.org/10.1016/j.chb.2014.10.048

Lawson, B. (2005). *How designers think* (4th ed.). Architectural Press.

Lidwell, W., Holden, K., & Butler, J. (2023). *Universal principles of design: 200 ways to increase appeal, enhance usability, influence perception, and make better design decisions*. Rockport Publishers.

McCarthy, J., & Wright, P. (2004). *Technology as experience*. MIT Press.

Meyer, M. W., & Norman, D. (2020). Changing design education for the 21st century. *She Ji: The Journal of Design, Economics, and Innovation, 6*(1), 13–49. https://doi.org/10.1016/j.sheji.2019.12.002

National Institute of Standards and Technology. (2021). *Human centered design (HCD)*. https://www.nist.gov/itl/iad/visualization-and-usability-group/human-factors-human-centered-design

Norman, D. A. (2013). *The design of everyday things* (Revised and expanded ed.). Basic Books.

Preece, J., Rogers, Y., & Sharp, H. (2002). *Interaction design: Beyond human-computer interaction*. John Wiley & Sons. http://graphics.stanford.edu/projects/iwork/

Safira, A. D. (2025). *Perancangan antar muka pengguna aplikasi "Dara" untuk mendukung perlindungan perempuan pekerja dari tindak pelecehan seksual* [Skripsi sarjana, Universitas Pembangunan Jaya].

Shaftesbury, A. A. C. (2001). *Characteristics of men, manners, opinions, times* (Vol. 1). https://oll-resources.s3.us-east-2.amazonaws.com/oll3/store/titles/811/Shaftesbury_5987_EBk_v6.0.pdf

Schön, D. A. (1984). *The reflective practitioner: How professionals think in action*. Basic Books.

Spillers, F. (2024, July 3). *What is context of use in UX design?* https://frankspillers.com/what-is-context-of-use-in-ux-design/

Stake, R. E. (2006). *Multiple case study analysis*. Guilford Press.

Yin, R. K. (2017). *Case study research and applications*. Sage.