Multitech Journal of Science and Technology (MJST)
Vol.3, No.5, 2026:599-618

Designer Mindset in Visual Communication: Creativity, Innovation, and Problem-Solving as Integrated Competencies in Contemporary Design Practice

Loso Judijanto
IPOSS Jakarta
Corresponding Author: Loso Judijanto losojudijantobumn@gmail.com

A R T I C L E I N F O

Keywords: Designer Mindset, Visual Creativity, Design Innovation, Problem-Solving, Design Thinking, Creative Thinking, Visual Communication Design, User Experience, Creative Industry, Qualitative Literature Review

Received : 2 March
Revised : 20 April
Accepted: 18 May

A B S T R A C T

The mindset of a visual designer is a cognitive and affective construct that combines creativity, innovation, and problem-solving ability as the core competencies of the contemporary design profession. This article aims to conceptually examine the interrelation among these three dimensions in shaping an adaptive and highly competitive designer mindset in the era of digital transformation. Using the Qualitative Literature Review (QLR) method, this study synthesizes various reputable literature sources, primarily published between 2020 and 2026. The study's findings reveal that creativity functions as the cognitive foundation of the design process, which develops through idea exploration, utilization of imagination, and adaptation to changing trends. Innovation acts as a strategic foundation that directs creative energy into market-valued visual solutions, with the integration of digital technology and user experience-based approaches as its main catalysts. Problem-solving occupies a position as an integrative competency that connects creativity and innovation with the real needs of users through a cycle of problem identification, needs analysis, creative decision-making, and iterative evaluation. These three dimensions work synergistically and reinforce each other within an ecosystem of superior designer thinking. The implications of these findings include the need for educational curriculum reform in design that explicitly integrates critical and creative thinking training, as well as the development of an empathy-based innovation culture in creative industry practice

INTRODUCTION

The rapid development of the global creative industry demands that designers not only master technical skills but also possess an adaptive, innovative mindset and the ability to solve problems effectively. In the fast-moving digital transformation era, creative thinking skills become a strategic asset that determines the competitiveness of both individuals and organizations in facing constantly changing challenges. Modern designers are required to understand that visual works are not merely aesthetic products but communicative solutions born from a deep, exploratory, and user-oriented thought process [1].

A designer's mindset is a psychological construct that reflects how a designer views, processes, and responds to creative challenges in their professional environment. This concept developed from the idea of design thinking popularized by Tim Brown from IDEO, which emphasizes empathy, experimentation, and collaboration as the foundation of creative thinking. Recent research shows that a strong designer mindset is directly correlated with the ability to produce highly valuable innovations, both in the context of commercial products and visual communication. Furthermore, this mindset is not only relevant for graphic designers alone, but has also spread to various fields such as education, health, technology, and public policy as a holistic problem-solving approach.

Creativity, innovation, and problem-solving are the three main pillars that shape the mindset of an excellent designer. Creativity provides the fuel for the ideation process and unlimited concept exploration, while innovation transforms those creative ideas into functional and marketable solutions. Problem-solving, on the other hand, directs that creative and innovative energy to real issues faced by users and society. These three elements work synergistically and cannot be separated from each other in contemporary design practice [5]. Designers who internalize these three pillars in their work processes have been shown to produce concepts that are deeper, more diverse, and transformative compared to those who rely solely on technical skills [6].

The urgency of studying designers' mindset is increasing along with the spread of complex challenges (wicked problems) in various sectors of life. These problems do not have a single, definitive solution, thus requiring a flexible, iterative, and empathy-based creative thinking approach toward users. Design students equipped with a deep understanding of creativity and a creative mindset have a much better ability to adapt in facing the complexities of the professional world [7]. On the other hand, technological developments such as artificial intelligence, augmented reality, and interactive media have fundamentally changed the landscape of the design profession, making an adaptive mindset an absolute requirement for long-term career success [8], [9].

Although the literature on creativity and design is quite extensive, studies that specifically discuss the interconnectedness of visual designers' mindset, innovation, and problem-solving strategies in an integrated manner are still relatively limited, especially in the context of Indonesian-language academia. Most existing studies tend to discuss one aspect partially — for example, creativity alone, or product innovation alone — without examining how these three

elements reinforce each other within a complete designer's mindset [10], [11]. This intellectual gap is the starting point and the main reason for writing this article.

The objectives of this article are: (1) to conceptually and theoretically examine how creativity shapes the mindset of visual designers in the design process; (2) to analyze the role of innovation as a foundation for the development of relevant and competitive designs; and (3) to explain the problem-solving strategies applied by designers in facing the challenges of complex creative projects. With a qualitative literature review approach, this article is expected to provide a meaningful academic contribution as well as serve as a practical reference for designers, educators, researchers, and stakeholders in the creative industry in understanding and developing a comprehensive designer mindset in the modern era [12], [13]..

LITERATURE REVIEW

1. The Concept of Designer Mindset in a Theoretical Perspective

The concept of mindset in the context of design refers to a set of values, beliefs, and cognitive tendencies that guide a designer in understanding and responding to creative challenges. There is a clear distinction between fixed mindset and growth mindset, where the growth mindset is considered essential for creativity because it encourages individuals to keep learning, experimenting, and not fear failure [14]. In the context of design, a growth mindset manifests in the courage to explore solutions that have never been tried before, accepting criticism as material for improvement, and seeing failure as a natural part of a productive creative process [7]. A strong designer mindset also includes deep empathy for users — the ability to understand users' needs, expectations, and frustrations, which are then translated into targeted design decisions [5].

Design thinking, as a framework that has been popular since 2008 and further developed by various academics, is the most operational manifestation of the designer mindset [2]. This framework integrates empathy, problem definition, ideation, prototyping, and testing in a non-linear iterative cycle. Design thinking is not only relevant for designing physical products, but is also effective when applied to business model innovation, service development, and complex social problem-solving [3]. This approach places humans (human-centered) at the center of every design decision, so that the solutions produced are not only aesthetic but also functional and socially meaningful.

2. Creativity: Cognitive Foundations and the Innovative Process

Creativity in design is a multidimensional ability that encompasses idea fluency, thinking flexibility, originality of ideas, and concept elaboration. The creative process is described as iterative and improvisational — not a single moment of enlightenment (a eureka moment), but rather a series of small steps that build upon each other and develop organically [10]. This understanding challenges the myth of creativity as an innate talent possessed only by a few individuals, and asserts that creativity is a skill that can be trained, developed, and strengthened through structured and reflective practice.

The relationship between creativity, function, and aesthetics in design is examined in depth, and it is found that the best designs arise from a dynamic

balance among these three dimensions—where creativity acts as a mediator connecting aesthetic value with functional usefulness [1]. Furthermore, the role of creative intuition—the ability to make appropriate design decisions based on cumulative experience and aesthetic sensitivity—has been explored, which often cannot be explained rationally but results in exceptionally influential works [15]. Meanwhile, research has been conducted on how artificial intelligence-based platforms can enrich the process of designers' inspiration search, provide access to previously unreachable visual stimuli, and ultimately expand the boundaries of human creativity in the design process [16].

Exploration of ideas and concept development are critical stages in the creative process that require alternating between divergent and convergent thinking skills. Iterative transformation during the concept generation stage — the continuous process of revising and updating ideas — results in deeper exploration and more innovative solutions compared to conventional linear approaches [6]. Creative adaptation to environmental changes is also an important aspect of designer creativity; the type of methodology used in a natural work environment significantly affects the level of designer creativity, with a more structured yet flexible approach producing higher-quality creative output [11].

3. Innovation: From Ideas to Impactful Solutions

Innovation in the context of visual design is not merely novelty for the sake of novelty, but the creation of new value that is relevant and meaningful to both users and the market. Design orientation is defined as an organization's commitment to using design as a source of comprehensive innovation strategy, ranging from product aesthetics to holistic user experiences [13]. Design-based innovation has been proven to generate strong product differentiation and deeper emotional connections between brands and consumers, providing a competitive advantage that is difficult for competitors to imitate.

The integration of technology in modern design practice has opened up dimensions of innovation that were previously unimaginable. An integrated curriculum between virtual reality (VR) and augmented reality (AR) for design students results in higher innovative capabilities because students can explore ideas in an immersive three-dimensional space [8]. Meanwhile, the implementation of design-based learning models in higher education, which emphasizes the integration of knowledge through real design practice, significantly enhances students' innovative skills compared to conventional learning methods [9]. The intelligent use of user data also becomes a strong source of innovation; a twin data-driven approach that combines physical and digital data is introduced to produce user experience-based design innovations that are more accurate and responsive [17].

Innovation through user involvement has become a dominant paradigm in contemporary design. The double-edged sword effect of online customer community involvement in product innovation has been revealed — on one hand generating relevant fresh ideas, but on the other hand potentially hindering originality if not managed properly [18]. Collaborative approaches in innovation are also examined through the development of circular proposition design tools that facilitate multidisciplinary collaboration in creating ecologically and

economically sustainable design solutions [19]. An 'optimistic' approach to creativity is proposed, where fresh new perspectives — such as viewing problems from different angles metaphorically — become the most effective catalyst for innovation in paradigm-changing design works [20].

4. Problem Solving: Systematic and Creative Approaches in Design

Problem solving is a core competency in the design profession that integrates analytical, synthetic, and evaluative skills into a coherent workflow. Design thinking is an effective method for problem-setting and needfinding — the process of formulating the right problem before seeking solutions — especially for teams facing wicked problems that are unstructured and multidimensional [5]. The ability to identify the correct problem — not just the visible problem — is the main differentiator between ordinary designers and extraordinary designers.

User needs analysis becomes a fundamental stage before the design problem-solving process can begin. The effectiveness of design thinking is demonstrated in the context of public health education — where students trained using this approach are able to identify user needs more accurately and produce more innovative solutions compared to the control group [4]. This study emphasizes that problem-solving skills based on design thinking are transferable and relevant across disciplines, not limited to the domain of visual design alone.
Decision-making in the creative process is an aspect of problem-solving that requires a balance between rational considerations and aesthetic intuition. The relationship between problem framing (the way of framing a problem) and the designer's cognitive style has been studied and it was found that the way someone frames a problem significantly influences the quality and diversity of ideas generated [21]. This study emphasizes the importance of cognitive flexibility — the ability to reframe problems from various perspectives — as a core skill in the problem-solving repertoire of a professional designer. Evaluation and refinement of design solutions also examine and analyze the role of feedback systems in the design and development process. It was found that a well-structured feedback cycle consistently produces higher-quality final solutions that are more in line with user needs [12].

Problem-solving strategies through simulation and scenario-based approaches provide a new dimension in the modern design process. The integration of simulation into the design pedagogy environment has been reviewed, and it was found that exposure to realistic and complex problem scenarios significantly enhances students' ability to identify, analyze, and solve design problems in real professional contexts [22]. Furthermore, design thinking is specifically applied in business model innovation, showing that a trained designer's mindset can identify hidden new value opportunities within existing business systems, and then design more effective and sustainable solutions to exploit those opportunities [3].

METHODOLOGY

This article uses a Qualitative Literature Review (QLR) approach as the main method in the process of collecting, selecting, and analyzing relevant literature sources. Unlike the Systematic Literature Review (SLR), which applies a very strict and quantitatively measured search protocol, QLR provides broader interpretative flexibility for researchers to explore, analyze, and synthesize various theoretical and conceptual perspectives in depth [23]. This approach was chosen because the article's purpose is conceptual — namely to examine the relationship between designers' mindsets, creativity, innovation, and problem-solving from various academic perspectives — so depth of interpretation is prioritized over comprehensiveness of a quantitatively protocol-based search. The sources used in this study include reputable international and national journal articles, with a primary focus on publications from 2020 to 2026, so that the findings examined reflect the latest developments in the academic discourse on design thinking, creativity, and visual design innovation.

The analysis process in this QLR follows the thematic synthesis framework, where conceptual themes are identified, categorized, and synthesized inductively from various literature sources that have been read in depth (close reading) [24]. The researchers conducted a critical reading of each source to identify the core arguments, the theoretical framework used, and relevant empirical findings, and then integrated these various perspectives into a coherent conceptual narrative [25]. The main themes that emerge from this process — namely creativity as the foundation of a designer's thinking, innovation as the basis for design development, and problem-solving as a core competence of designers — form the organizational framework of this article's discussion. Synthesis between sources is carried out by considering consistency, contradictions, and the complementarity of perspectives, so that readers gain a nuanced and comprehensive understanding of the topic under study.

The limitations of the QLR approach are explicitly acknowledged as part of the methodological transparency of this article. The selection of sources is purposive and relies on considerations of thematic relevance and academic quality of the sources, rather than statistical representativeness, so generalization of the findings should be approached with caution [26]. Nevertheless, the strength of this approach lies in its ability to produce a deep understanding and rich contextualization of complex concepts that are the focus of the study, which cannot be achieved through quantitative analysis alone. In the context of research in design that is interpretative and constructivist in nature, QLR offers a significant and relevant contribution to the development of conceptual knowledge in the fields of visual design, creativity, and innovation.

RESULTS AND DISCUSSION

Creativity in the Designer's Mindset

Creativity is the main foundation in shaping the mindset of designers who are capable of producing valuable, adaptive, and relevant works for the needs of modern society. The ability to develop new ideas, process visual experiences, and find effective solutions shows that the design process is not merely about creating attractive forms. The designer's mindset evolves through the courage to experiment, the sensitivity to observe problems, and the ability to translate ideas into functional innovations across various fields [27].

1. Creative Thinking in the Design Process

Creative thinking helps designers understand the relationship between ideas, functions, and user needs in a design process. Designers do not rely solely on technical skills but also use imagination to create visual approaches that differ from previous works. The ability to see opportunities from simple problems highlights the importance of creativity in producing effective solutions. The creative thinking process also encourages the courage to take risks when developing new concepts. Experience, environmental observation, and understanding of societal behavior greatly influence the quality of ideas generated. Creativity ultimately becomes an important foundation for designers to create innovative and relevant works with a strong identity [1].

A creative mindset in design develops through the practice of open thinking and the ability to evaluate various possible solutions. Designers often face challenges that require quick decisions, so creativity is necessary to find flexible and effective approaches. The ability to connect visual experiences with practical needs helps make the design process more directed. Creativity also allows designers to produce works that can attract attention while providing functional value to users. Developing a creative mindset requires high curiosity, the courage to explore new ideas, and the ability to accept criticism constructively. These attitudes help designers improve the quality of their work while broadening their insights in facing the developments of the modern design world [7].

2. Idea Exploration and Concept Development

Idea exploration is an important stage in the design process because it determines the direction of concept development that will be realized into a visual work. Designers need the ability to observe various phenomena, understand user needs, and transform inspiration into unique ideas. The exploration process is often carried out through searching for references, creative discussions, and visual experiments to find the best possibilities. Concept development not only focuses on aesthetics but also considers functionality and the effectiveness of design communication. The ability to harmoniously connect various elements shows the quality of a designer's creative thinking. This process helps produce work that has a strong identity, is relevant, and can provide an engaging visual experience [10].

The development of design concepts requires the ability to think systematically so that the ideas generated have a clear direction and purpose. Designers must consider the message, target users, and the context of design use before making visual decisions. Concept exploration is carried out through various creative approaches to find the solution that best fits the project's needs. The ability

to receive feedback and make revisions helps refine ideas so that the design results become more effective. An open creative process allows designers to discover innovative combinations of shapes, colors, and composition. Consistency in evaluating concepts helps maintain the quality of work while strengthening the designer's ability to face creative challenges in various professional situations [6].

3. The Role of Imagination in Creating Visual Solutions

Imagination plays an important role in helping designers produce visual solutions that are attractive, communicative, and different from other works. The ability to envision new possibilities allows designers to create fresher and more innovative concepts. Imagination also aids the idea development process when facing technical limitations or diverse user requirements. Designers use imagination to connect experiences, emotions, and aesthetic values into visual works that carry strong meaning. This ability supports the creation of designs that are not only pleasing to the eye but also capable of effectively conveying messages. The creative process ultimately develops through the courage to explore unique ideas in various appealing visual forms [15].

Imaginative ability helps designers see problems from different perspectives so that the solutions created become more creative. Imagination allows the development of visual ideas that can provide new experiences for users in understanding a design. The process of imaginative thinking is often influenced by the environment, culture, technology, and personal experiences that shape the creative character of the designer. Proper use of imagination helps produce work that is relevant to the evolving needs of modern society. Designers also utilize imagination to strengthen visual identity and increase the appeal of design communication. The balance between imagination, logic, and function ultimately becomes an important factor in creating effective and high-value visual solutions [16].

4. Creativity as the Basis of Design Differentiation

Creativity becomes a key factor that distinguishes a design work from other visual products in a modern competitive environment. Designers need the ability to create a unique visual identity so that the work has a strong character and is easily recognizable by the public. Design differentiation is determined not only by aesthetic appearance but also by the ability to provide a different experience for users. Creativity helps designers find new approaches in the use of shapes, colors, typography, and visual composition. This ability adds value to the quality of design while also enhancing the appeal of visual communication. The differentiation process ultimately helps design work to have a stronger position in meeting market needs and keeping up with contemporary creative trends [28], [29].

The application of creativity in design differentiation requires the courage to explore ideas that have not been widely used before. Designers must be able to understand changes in public taste so that the resulting work remains relevant and attracts user attention. Creativity also helps create visual innovations that can strengthen the image of a product, service, or organizational identity. The process of seeking design uniqueness is carried out through visual experiments, concept development, and evaluation of communication effectiveness. The ability to maintain originality becomes an important challenge in the rapidly evolving

world of design. Consistency in developing creativity helps designers produce different, high-value works that can compete in the modern creative industry environment [20].

5. Creative Adaptation to Changes in Trends and Needs

Creative adaptation has become an important skill for designers in facing changes in trends, technology, and the continuously evolving needs of society. Designers must be able to understand changes in user behavior so that the work produced remains relevant and effective to use. The ability to adapt helps the process of developing new ideas without losing the existing visual identity. Changes in design trends encourage designers to continuously learn and evaluate the creative approaches used in each project. Adaptation does not mean excessively following all developments, but rather choosing innovations that align with the design objectives. This process helps create works that are modern, communicative, and still possess balanced aesthetic value and function [11].

The ability to adapt to change helps designers maintain the quality of their work in a competitive creative environment. Creative adaptation also supports the development of a flexible mindset, enabling designers to effectively face new challenges. The use of digital technology, interactive media, and modern visual approaches demonstrates the importance of adaptability in the contemporary design process. Designers who are open to change tend to more easily find innovation opportunities and creative solutions. Experience in addressing various user needs helps improve analytical skills as well as decision-making in the design process. Ultimately, adaptive creativity becomes a key strength in producing designs that are relevant, innovative, and capable of meeting the demands of the times [30], [31].

Innovation as a Design Foundation

Innovation is an essential element in the development of the modern design world because it offers new approaches capable of effectively meeting societal needs. Changes in technology, user behavior, and industry competition drive designers to create works that are not only visually appealing but also functionally optimal. The ability to innovate demonstrates a designer's quality of thinking in producing creative solutions that are relevant, adaptive, and valuable for the development of today's professional environment [32], [33], [34]..

1. Innovation in Product and Visual Development

Innovation in product and visual development encourages designers to create works that have a strong identity and distinct value compared to other products. Utilizing new ideas gives designers the opportunity to produce more attractive shapes, colors, and appearances according to user needs. The design development process not only considers visual aesthetics but also comfort, function, and overall user experience. Innovative thinking helps designers find more efficient solutions when facing changes in market trends and modern technological advancements. Continuously evolving creativity creates significant opportunities to produce visual products that can endure in the competitive creative industry sustainably and remain relevant to the broader society today [17].

Product design development requires courage in trying new concepts so that the results are not monotonous and easily forgotten by users. Designers must understand market needs in depth before determining the visual direction and character of the product to be developed. The utilization of innovation allows for the creation of designs that are more flexible, communicative, and capable of providing an emotional impression to users. Innovative visual quality also increases the product's appeal so that the product has a higher competitive value in the modern creative industry environment. The ability to combine aesthetics and function in a balanced way shows that innovation is an important foundation in producing effective, attractive designs that also have tangible benefits for community life in a sustainable manner [35], [36].

2. Integration of Technology in Modern Design Practice

The integration of technology in modern design practice brings significant changes to the way designers create, develop, and present visual works to the public. The presence of digital devices facilitates the process of exploring ideas, making design work faster, more accurate, and efficient. The use of design software helps designers produce detailed visual appearances with high quality according to the needs of today's creative industry. Technological developments also support collaboration between designers and various parties through more practical digital communication systems. The ability to understand technology becomes an important part of the designer's mindset because it determines the ability to adapt to the continuously evolving and competitive creative world [8].

1. The utilization of technology is not only related to the use of digital devices, but also involves innovative thinking in creating more interactive visual experiences. Modern designers leverage technology to understand user behavior through data and analysis that support a more accurate design decision-making process. The presence of artificial intelligence, virtual reality, and interactive media opens up new opportunities to produce works that are more communicative and capture public attention. The skill of integrating technology with creativity demonstrates a designer's readiness to face the challenges of the modern industry. Technology-based work patterns help make the design process more effective while increasing the quality of visual outcomes that meet current user needs sustainably [9].

3. Experimental Approach in Design Creation

The experimental approach in design creation provides designers with the opportunity to explore various visual possibilities without being bound by conventional patterns. The experimental process aids in the emergence of new ideas that can present a design character that is more unique and different from previous works. Designers can try combinations of colors, shapes, textures, as well as visual techniques to find the creative solutions that best meet user needs. The freedom to experiment encourages the development of innovative thinking abilities, enabling designers to be more courageous in facing the challenges of the modern creative industry. The experience of continuously exploring helps improve the quality of design work because each experiment generates new understanding regarding the visual effectiveness and functionality of design in various professional situations [22].

The implementation of an experimental approach requires an open attitude toward criticism, evaluation, and the possibility of failure during the design development process. Designers who are accustomed to experimenting tend to have better adaptability when facing changes in market needs or technological developments. Visual exploration often results in new concepts that have a significant influence on modern design trends in various creative industry sectors. This approach also helps designers discover working methods that are more effective and efficient according to the characteristics of the projects they undertake. The courage to try different ideas demonstrates that innovation in design does not arise instantly, but rather through a continuous creative exploration process full of meaningful learning [19].

4. Innovation Based on User Experience and Needs

Experience- and user needs-based innovation becomes an important approach in creating designs that are relevant, effective, and easily accepted by the general public. Designers must understand user behavior, habits, and expectations before determining the visual concept and product functions to be developed. A deep understanding of user experience helps create designs that provide comfort and ease of use in everyday life. This approach shows that the success of a design depends not only on an attractive appearance but also on the ability to optimally meet real user needs. The process of gathering information through observation and evaluation helps designers produce more targeted creative solutions that have high functional value in the lives of modern society sustainably [18].

User experience provides an important source of inspiration for designers to develop innovations that are more human-centered and easily understood by various segments of society. Designers need to consider the emotional aspects of users so that the design can create a stronger connection with its surrounding environment. A needs-based approach helps direct the design development process because every visual decision has a clear purpose. Design works that pay attention to user experience tend to have a higher success rate in attracting attention and maintaining public loyalty. The ability to understand user needs reflects the quality of a designer's mindset, which not only focuses on aesthetics but also prioritizes function, comfort, and tangible benefits for the daily life of modern society [37], [38], [39].

5. Strategy for Building Value through Design Innovation

The strategy for building value through design innovation is carried out by creating works that can provide benefits while also having a strong visual identity. Designers need to understand that the value of design is not only in the beauty of appearance but also in the ability to solve user problems effectively. Innovation helps to create products that are more relevant to societal needs, thus having a higher appeal compared to other works. The process of developing a design strategy requires creative thinking so that every visual element has a clear function and supports communication objectives. The ability to bring new value through design demonstrates the professional quality of designers in facing the rapidly and dynamically evolving creative industry in various modern fields today [28], [40], [41].

The development of value in design requires consistency in quality, creativity, and the ability to understand changes in societal needs over time. Designers must be able to develop innovative strategies so that the resulting work has a strong character and is easily recognizable by users. The appropriate use of creative ideas helps increase public trust in both the quality of the product and the visual identity presented. Innovation strategies also provide significant opportunities for designers to create a deeper emotional connection between the product and the user. The ability to produce high-value designs demonstrates that innovation is not just the process of creating something new, but an effort to present visual solutions that are useful, relevant, and sustainable for the wider community [13].

Problem Solving in the Visual Design Process

Problem solving is an important part of the design process because every visual work must be able to effectively meet user needs. Designers not only produce attractive appearances but also formulate solutions through analysis, creativity, and directed decision-making. The ability to understand challenges, evaluate needs, and refine design outcomes helps create works that are relevant, functional, valuable, and capable of providing a good visual experience for modern society [42], [43].

1. Identifying Problems in Design Planning

Problem identification is the initial stage that determines the overall direction of design development. Designers need to understand user conditions, communication goals, as well as obstacles that arise during the design process. In-depth observation of market needs helps designers find the core issues in a more measured and systematic way. Data obtained through field research, interviews, and visual evaluation becomes the basis for developing the next creative solutions. Understanding the problems also prevents the emergence of designs that are only aesthetically appealing without providing real function for users. Thoroughness in recognizing issues helps designers produce visual decisions that are more relevant, effective, purposeful, and easily understood by the public in various modern communication needs [32], [34], [44].

The problem identification approach in design requires strong analytical skills and an open attitude towards various possible solutions. Designers often face challenges in the form of differing needs between users, clients, and business objectives that must be balanced evenly. Problem mapping is carried out by grouping the main priorities so that the design process runs more structured and efficiently. Clarity in understanding issues helps in developing visual concepts that can accurately meet needs without compromising the aesthetic value of the work. A mature identification process also facilitates the evaluation of design results because every visual decision has logical, measurable reasons and fully meets user needs across various modern digital visual communication media [5].

2. User Needs and Challenges Analysis

Analyzing user needs helps designers understand the expectations, habits, and experiences desired in a visual work. This understanding allows the design process to proceed more purposefully because every element is arranged based on clear usage objectives. Designers need to pay attention to comfort, ease of access, and communication effectiveness so that the design results can be accepted by

various user groups. Information gathering is carried out through observation, discussions, and simple testing to obtain an accurate picture of needs. Accuracy in analyzing user needs helps designers create visual solutions that are not only aesthetically appealing but also functional, relevant, and capable of enhancing the overall user experience in a rapidly evolving digital communication environment [44], [45].

User challenges in the design process often change following the development of technology, culture, and communication patterns in modern society. Designers must be able to adjust their creative approaches so that the solutions produced remain relevant to user needs. Needs analysis is carried out by considering emotional, visual, and functional factors, so that the design is able to provide a more effective experience. Understanding user behavior helps designers determine information priorities and arrange displays that are easily understood by various groups. Success in analyzing user challenges will strengthen design quality because every visual decision is made based on real needs, not just following temporary trends in the rapidly changing modern creative industry [4].

3. Decision-Making in the Creative Process

Decision-making in the creative process requires careful consideration so that the design can effectively convey the message to the users. Designers must determine visual choices, colors, typography, as well as layout based on the communication goals that have been planned beforehand. The ability to choose the best solutions helps the design process run more efficiently without reducing the aesthetic quality of the work. Every creative decision is usually influenced by user needs, brand characteristics, and the development of visual trends in society. Accuracy in making design decisions results in a strong identity, easy to understand, and capable of providing a consistent visual experience for various user groups in modern life through a creatively planned approach that is adaptively oriented toward needs [46], [47].

Rational consideration in decision-making helps designers avoid visual choices that are less suited to the needs of the project. Designers need to evaluate each concept objectively before determining the final solution to be used in the design. Discussions with the creative team, clients, and users are often conducted to gain a broader perspective on the issues. This process helps designers make balanced decisions between aesthetic value and visual communication function. The ability to make accurate decisions also enhances confidence in the design results because every visual element has a clear purpose, is relevant, and supports the effectiveness of information delivery to users comprehensively in various modern visual communication needs [21].

4. Problem-Solving Strategy through a Design Approach

Problem-solving strategies in design are carried out through a creative approach that considers function, aesthetics, and user comfort simultaneously. Designers need to organize directed working steps so that each problem can be solved systematically and efficiently. Concept development usually begins with idea searching, the preparation of alternative solutions, up to design testing before being applied to users. This process helps designers find the visual approach that best suits the project's needs. The right strategy allows a design to provide

communicative solutions, be easily understood, and enhance the quality of user interaction across various visual media that are developing in modern society with a high level of creative competition each year [3].

The implementation of effective design strategies helps designers face various visual communication challenges in the modern creative industry environment. Designers must be able to adjust their working methods according to the characteristics of the project, user needs, and the information delivery goals desired by the client. The use of a collaborative approach is often employed to obtain more innovative solutions that are relevant to societal developments. Evaluation of various design alternatives helps determine the most appropriate solution before the final result is published to users. Successful implementation of problem-solving strategies will improve design quality because every visual decision is arranged in a planned, communicative, functional manner and is able to meet user needs effectively across various digital media platforms [27], [37], [40].

5. Evaluation and Refinement of Design Solutions

Design evaluation becomes a crucial stage to determine the level of success of visual solutions in fully meeting user needs. Designers need to review the functionality, appearance, and effectiveness of communication so that the design results can provide an optimal experience. Testing is conducted through user observation, feedback collection, and analysis of shortcomings still found in the design. The evaluation process helps designers understand the areas that need improvement so that the quality of the work can continue to increase. Design refinement is carried out gradually, taking into account the balance between aesthetic value and communication function so that the visual solution remains relevant to the needs of modern society that continuously evolves over time within a competitive creative industry environment [48], [49], [50].

The refinement of design solutions requires adaptability so that visual works can continue to respond effectively to changing user needs. Designers must be open to criticism, suggestions, and technological developments that influence communication patterns in modern society. Design improvements are made by paying attention to evaluation results so that any shortcomings can be corrected through more precise creative approaches. The continuous development of solutions helps enhance visual quality, user comfort, and the effectiveness of message delivery to the public. The ability to consistently refine design demonstrates that the creative process does not stop once the work is completed, but continues to evolve following the changing visual communication needs over time in the modern creative industry [12].

CONCLUSIONS AND RECOMMENDATIONS

This article has examined the relationship between the mindset of visual designers, creativity, innovation, and problem-solving as three pillars that support each other in contemporary design practice. The literature review conducted confirms that a designer's mindset is not merely an individual mental attitude, but a cognitive and affective construct that can be shaped, developed, and strengthened through education, experience, and ongoing professional reflection. Successful designers are those who are able to integrate expressive creativity, innovative thinking, and analytical problem-solving skills into a coherent workflow that is adaptive to the ever-changing demands of the environment.

Creativity has been proven to be an irreplaceable cognitive foundation in the visual design process. A creative mindset that develops from curiosity, the courage to experiment, and openness to criticism enables designers to produce solutions that are original, relevant, and highly valuable to users. Deep idea exploration, directed use of imagination, and the ability to creatively adapt to changing trends are the main characteristics of creative designers in the modern era. The iterative and improvisational creative process affirms that creativity is a skill that is born and developed through consistent practice, not a static innate talent. An important implication of these findings is the need for design education curricula that explicitly train creative thinking abilities, not just technical visual production skills.

Innovation as the foundation of design shifts the paradigm from 'design as an aesthetic product' to 'design as a strategic solution.' This study finds that the most impactful design innovation arises from a combination of experimental courage, a deep understanding of user needs, and intelligent, purposeful technology integration. A user experience-driven approach emphasizes the importance of placing humans at the center of every design innovation decision. At the same time, responsible design innovation must consider sustainability — whether ecological, social, or economic — as a value dimension that cannot be ignored in current and future design processes.

Problem-solving as a core competency of designers reflects the highest level of professional and intellectual maturity in the design profession. The ability to accurately identify problems (problem-setting), empathetically analyze user needs, make evidence-based creative decisions, and evaluate solutions iteratively is a series of competencies that distinguish professional designers from mere technical practitioners. The ability to frame problems correctly often determines the quality of the final solution more than the sophistication of the techniques used [5]. This finding challenges design education institutions to explicitly integrate training in critical thinking and problem-solving into the curriculum, alongside the technical skills training that has long dominated.

Overall, the three dimensions examined in this article — creativity, innovation, and problem-solving — form a mutually reinforcing thinking ecosystem within the mindset of an outstanding visual designer. In this ecosystem, creativity provides energy and fuel, innovation offers direction and strategic purpose, while problem-solving provides structure and relevance to real user needs. These three dimensions do not operate linearly but rather in a cyclical and

interactive manner, where abilities in one dimension strengthen and deepen abilities in the other dimensions. Designers who successfully internalize and integrate all three into their mindset and work practices will have the capacity to face increasingly complex design challenges in the future with confidence and high effectiveness.

For future research development, several promising research agendas can be proposed. First, there is a need for longitudinal empirical research that examines how designers' mindsets develop over time through professional experiences and formal education, as well as which factors are most significant in shaping and maintaining a growth mindset in the context of a long-term design career. Second, it is necessary to study more deeply how the integration of artificial intelligence (AI) and generative AI tools changes the dynamics of creativity, innovation, and problem-solving in contemporary design practice — whether these technologies expand the boundaries of human creativity or potentially reduce the depth of the creative process. Third, comparative cross-cultural research on designers' mindsets would be highly valuable to understand how local cultural contexts — including the Indonesian context — shape the way designers approach creativity, innovation, and problem-solving. Third, cross-cultural comparative research on designers' mindsets would be very valuable for understanding how local cultural contexts — including the Indonesian context — shape the way designers approach creativity, innovation, and problem-solving in ways that are distinctive and different from the Western standards that dominate the international literature. Fourth, studies on the role of communities of practice and collaborative networks in strengthening designers' mindsets also deserve further investigation, considering the increasing importance of cross-disciplinary collaboration in the increasingly integrated and interdependent global creative industry ecosystem.

FURTHER STUDY

This research has limitations so that further research is needed on the topic of Designer Mindset in Visual Communication: Creativity, Innovation, and Problem-Solving as Integrated Competencies in Contemporary Design Practice in order to perfect this research and increase insight for the author and readers.

REFERENCES

A. Faisal et al., Digital Business: Empowering Digital Business Talent in the Era of Artificial Intelligence, 1st ed. PT Sonpedia Publishng Indonesia, 2026.

A. N. Azizah, Suparman, and R. R. Soelistiyowaty, "Proses Produksi Desain Feed Instagram sebagai Media Edukasi dan Komunikasi Publik di @radartv_official," J-CEKI J. Cendekia Ilm., vol. 5, no. 2, pp. 1821–1829, 2026, [Online]. Available: https://al-haramjournal.id/index.php/J-CEKI/article/download/13687/10129/35326

A. Rimbawan, I. K. A. P. Wijaya, I. N. Y. Sumadewa, and N. N. D. Suryani, "Re-branding Identitas Visual dalam Desain Kemasan Amenities Hospitality untuk Memperkuat Citra Merek," J. SASAK Desain Vis. dan Komun., vol. 6, no. 1, pp. 244–257, Jun. 2024, doi: 10.30812/sasak.v6i1.4005.

B. Yang, Y. Liu, and W. Chen, "A twin data-driven approach for user-experience based design innovation," Int. J. Inf. Manage., vol. 68, p. 102595, 2023, doi: https://doi.org/10.1016/j.ijinfomgt.2022.102595.

C. Ingram, T. Langhans, and C. Perrotta, "Teaching design thinking as a tool to address complex public health challenges in public health students: a case study," BMC Med. Educ., vol. 22, no. 1, p. 270, 2022, doi: 10.1186/s12909-022-03334-6.

C. S. Dweck, Mindset: The New Psychology of Success. Random House, 2006.

C.-Y. Tsai, W.-L. Shih, F.-P. Hsieh, Y.-A. Chen, and C.-L. Lin, "Applying the design-based learning model to foster undergraduates' web design skills: the role of knowledge integration," Int. J. Educ. Technol. High. Educ., vol. 19, no. 1, p. 4, 2022, doi: 10.1186/s41239-021-00308-4.

D. C. Wynn and A. M. Maier, "Feedback systems in the design and development process," Res. Eng. Des., vol. 33, no. 3, pp. 273–306, 2022, doi: 10.1007/s00163-022-00386-z.

D. M. Putra and T. Sutabri, "Analisis Kebutuhan Pengguna dan Desain Antarmuka Pengguna pada Sistem Informasi Perpustakaan Berbasis Web," Sci. J. Ilm. Sain dan Teknol., vol. 2, no. 5, pp. 98–102, 2024, [Online]. Available: https://jurnal.kolibi.org/index.php/scientica/article/download/681/647/5184

D. McInerney, "Insights into product design students' perception of, and engagement with, creativity in design education," Int. J. Technol. Des. Educ., vol. 33, no. 3, pp. 1199–1219, 2023, doi: 10.1007/s10798-022-09766-x.

E. Kwon, V. Rao, and K. Goucher-Lambert, "Understanding inspiration: Insights into how designers discover inspirational stimuli using an AI-enabled platform," Des. Stud., vol. 88, p. 101202, 2023, doi: https://doi.org/10.1016/j.destud.2023.101202.

E. M. Silk, A. E. Rechkemmer, S. R. Daly, K. W. Jablokow, and S. McKilligan, "Problem framing and cognitive style: Impacts on design ideation perceptions," Des. Stud., vol. 74, p. 101015, 2021, doi: https://doi.org/10.1016/j.destud.2021.101015.

G. Salim, A. N. Khudori, and M. S. Haris, "Analisis Kebutuhan Pemahaman Budaya Digital pada Generasi X dan Baby Boomer," Nusant. Hasana J., vol. 5, no. 3, pp. 368–391, 2025, [Online]. Available: http://ejournal.nusantarahasanajournal.com/index.php/nhj/article/view/1600

H. Snyder, "Literature review as a research methodology: An overview and guidelines," J. Bus. Res., vol. 104, pp. 333–339, Nov. 2019, doi: 10.1016/j.jbusres.2019.07.039.

H. U. Anisah et al., Desain Komunikasi Visual: Teori dan Praktik, 1st ed. Kota Padang: CV Literaksi Press, 2025. [Online]. Available: https://www.researchgate.net/publication/394115757_EBOOK_DESAIN_KOMUNIKASI_VISUAL_TEORI_PRAKTIK

I. J. Rahmawati and T. Suminar, "Strategi Pembelajaran Inovatif dalam Mengembangkan Kompetensi Kreatif Peserta Pelatihan Digital Marketing di LKP Vision College Semarang," Inov. J. Sos. Hum. dan Pendidik., vol. 5, no. 1, pp. 649–664, 2026, doi: 10.55606/inovasi.v5i1.5407.

I. N. Y. Sumadewa and W. Febriana, Berpikir Kreatif ala Desainer: Panduan untuk Desain Komunikasi Visual, 1st ed. The Journal Publishing (The Journalish), 2024. doi: https://doi.org/10.55314/tjp.v5i1.820.

J. Han, H. Forbes, and D. Schaefer, "An exploration of how creativity, functionality, and aesthetics are related in design," Res. Eng. Des., vol. 32, no. 3, pp. 289–307, 2021, doi: 10.1007/s00163-021-00366-9.

J. Thomas and A. Harden, "Methods for the thematic synthesis of qualitative research in systematic reviews," BMC Med. Res. Methodol., vol. 8, no. 1, p. 45, Dec. 2008, doi: 10.1186/1471-2288-8-45.

K. A. Ramadhani and D. F. Rizkizha, "Rebranding Identitas Visual Noyo Gimbal View dan Penerapannya Berdasarkan Karakteristik Nilai Lokal," J. Manaj. Pendidik. dan Ilmu Sos., vol. 7, no. 1, pp. 1003–1017, Jan. 2026, doi: 10.38035/jmpis.v7i1.6956.

M. F. Aulia, "Pengembangan Skema (Alternatif) Perancangan Promosi Bagi Desain Komunikasi Visual," J. Dasarupa Desain dan Seni Rupa, vol. 3, no. 3, pp. 1–13, Jun. 2022, doi: 10.52005/dasarupa.v3i3.81.

M. J. Grant and A. Booth, "A typology of reviews: an analysis of 14 review types and associated methodologies," Heal. Inf. Libr. J., vol. 26, no. 2, pp. 91–108, Jun. 2009, doi: 10.1111/j.1471-1842.2009.00848.x.

N. I. Yunianti and L. Maknun, "Mendorong Kreativitas Anak melalui Pembelajaran Seni dalam Sekolah Dasar," MICJO Multidiscipinary Indones. Cent. J., vol. 1, no. 4, pp. 1752–1764, 2024, doi: https://doi.org/10.62567/micjo.v1i4.263.

N. Trisnani et al., Desain Pembelajaran Inovatif untuk Pendidikan Modern. Mifandi Mandiri Digital, 2025. [Online]. Available: https://jurnal.mifandimandiri.com/index.php/penerbitmmd/article/view/492

P. Brown, B. Baldassarre, J. Konietzko, N. Bocken, and R. Balkenende, "A tool for collaborative circular proposition design," J. Clean. Prod., vol. 297, p. 126354, 2021, doi: https://doi.org/10.1016/j.jclepro.2021.126354.

P. Cankurtaran, M. B. Beverland, and F. J. Farrelly, "Defining design orientation: A field-based discovery approach," Technovation, vol. 131, p. 102943, 2024, doi: https://doi.org/10.1016/j.technovation.2023.102943.

P. Elza, "Seni Digital dan Media Baru: Transformasi Kreativitas di Era Teknologi," JSDK J. Seni dan Desain Kreat., vol. 1, no. 1, 2025, [Online]. Available: https://jurnal.pustakabangsaindonesia.com/index.php/jsdk/article/view/60

R. A. Rahman and T. Sutojo, "Implementation of Human-Centered Design Method for User-Interface Design in a Learning Management System," Techno Creat., vol. 1, no. 1, pp. 64–75, 2023, [Online]. Available: https://abdimasku.lppm.dinus.ac.id/index.php/technocreative/article/viewFile/1380/374

R. Bender-Salazar, "Design thinking as an effective method for problem-setting and needfinding for entrepreneurial teams addressing wicked problems," J. Innov. Entrep., vol. 12, no. 1, p. 24, 2023, doi: 10.1186/s13731-023-00291-2.

R. J. Torraco, "Writing Integrative Literature Reviews," Hum. Resour. Dev. Rev., vol. 15, no. 4, pp. 404–428, Dec. 2016, doi: 10.1177/1534484316671606.

R. K. Sawyer, "The iterative and improvisational nature of the creative process," J. Creat., vol. 31, p. 100002, 2021, doi: https://doi.org/10.1016/j.yjoc.2021.100002.

R. Subekti et al., Transformasi Digital: Teori dan Implementasi Menuju Society 5.0. PT Sonpedia Publishng Indonesia, 2024. [Online]. Available: https://www.researchgate.net/publication/380462238_TRANSFORMASI_DIGITAL_Teori_implementasi_Menuju_Era_Society_50

Ri. Mayasari and N. Heryana, Konsep dan Teori Deain User Experience Perangkat Lunak, 1st ed. Karawang: Neo Santara Indonesia, 2023. [Online]. Available: https://www.researchgate.net/publication/377968095_Konsep_dan_Teori_Desain_User_Experience

S. L. N. Janah, C. P. Viradani, and F. Ardiansyah, "Optimalisasi Pengembangan Sumber Daya Manusia melalui Pelatihan dalam Menjawab Tantangan Global," J. Ilmu Sos. Manajemen, Akunt. dan Bisnis, vol. 2, no. 2, pp. 6–16, 2025, [Online]. Available: https://ejournal.ayasophia.org/index.php/jismab/article/download/191/87/814

S. Lee, B. Choi, C. C. Maia, J. Park, S. H. Youm, and S. Lee, "Integrating simulation into design: an experiment in pedagogical environments," Int. J. Technol. Des. Educ., vol. 32, no. 4, pp. 2257–2277, 2022, doi: 10.1007/s10798-021-09682-6.

S. M. Clancy, L. R. Murphy, S. R. Daly, and C. M. Seifert, "Iterative transformations for deeper exploration during concept generation," Int. J. Technol. Des. Educ., vol. 34, no. 1, pp. 267–305, 2024, doi: 10.1007/s10798-023-09813-1.

S. Mamis, Paharuddin, E. A. Handayani, F. Rumra, and Y. A. L. Hermanto, Desain Komunikasi Visual, 1st ed. Kota Solok: PT Mafy Media Literasi Indonesia, 2023. [Online]. Available: https://www.researchgate.net/publication/394236958_DESAIN_KOMUNIKASI_VISUAL

S. N. Alvi and R. M. Rachman, "Peran Desainer dalam Bermasyarakat Menurut Pandangan Mahasiswa Desain," J. Wastucitra, vol. 1, no. 1, pp. 29–35, 2021, [Online]. Available: https://ejournal.stdi.ac.id/wastucitra/article/download/1/1125-4/25

S. V Sgourev, "Changing perspective: An 'optical' approach to creativity," Poetics, vol. 89, p. 101581, 2021, doi: https://doi.org/10.1016/j.poetic.2021.101581.

T. Brown, Design Thinking. Harvard Business Review, 2008.

T. I. Mohamed and A. Sicklinger, "An integrated curriculum of virtual/augmented reality for multiple design students," Educ. Inf. Technol., vol. 27, no. 8, pp. 11137–11159, 2022, doi: 10.1007/s10639-022-11069-6.

T. J. Hardman, "Understanding creative intuition," J. Creat., vol. 31, p. 100006, 2021, doi: https://doi.org/10.1016/j.yjoc.2021.100006.

U. A. Emka, "Peran Desain Arsitektur dalam Meningkatkan Kualitas Ruang Literasi yang Adaptif," Realis. Ilmu Pendidikan, Seni Rupa dan Desain, vol. 2, no. 1, pp. 67–76, Nov. 2024, doi: 10.62383/realisasi.v2i1.435.

V. Chulvi, M. Royo, M.-J. Agost, F. Felip, and C. García-García, "How the type of methodology used, when working in a natural environment, affects the designer's creativity," Res. Eng. Des., vol. 33, no. 3, pp. 231–248, 2022, doi: 10.1007/s00163-022-00387-y.

V. L. D. Pasaribu, D. Novitasari, and A. P. Lestiadi, Strategic Innovation Management Implementing Transformation Change in Modern Organizations, 1st ed. Cilacap: Media Pustaka Indo, 2026. [Online]. Available: https://media.neliti.com/media/publications/683583-strategic-innovation-manajement-implemen-9e8760b5.pdf

V. Rudi and K. Wiradinata, "Strategi Desain Melalui Pendekatan Kreatif terhadap Prinsip Desain Revastudio," J. Strateg. Desain dan Indovasi Sos., vol. 6, no. 1, pp. 26–33, 2020, [Online]. Available: https://ojs.uph.edu/index.php/JSDIS/article/view/9475/4864

W. Arafah and F. M. Prasetyo, Design Thinking untuk Bisnis Berkelanjutan: Inovasi untuk Masa Depan, 1st ed. Purbalingga: CV Diva Pustaka, 2025. [Online]. Available: https://repository.iiq.ac.id/bitstream/123456789/4238/1/E-BOOK DESIGN THINKING UNTUK BISNIS BERKELANJUTAN _251002_175800.pdf

X. Xie, L. Wang, and T. Zhang, "Involving online community customers in product innovation: The double-edged sword effect," Technovation, vol. 123, p. 102687, 2023, doi: https://doi.org/10.1016/j.technovation.2022.102687.

X. You, "Applying design thinking for business model innovation," J. Innov. Entrep., vol. 11, no. 1, p. 59, 2022, doi: 10.1186/s13731-022-00251-2.

Y. S. Sjaerodji, "Evolusi Tren Desain Digital: Dari Flat Design hingga Neumorphism," Binus University - Visual Communication Design Article. Accessed: May 13, 2026. [Online]. Available: https://binus.ac.id/bandung/2025/08/evolusi-tren-desain-digital-dari-flat-design-hingga-neumorphism/