The Prototype Development of
Digital Media Literacy with *Sati* (Mindfulness):
A Literature Review for Card Game Ideation

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Abstract

This article reviews the literature on self-literacy, media literacy, and the use of games as learning tools for acquiring those literacies. The article looks specifically at literature discussing the design of card games which aim to develop digital media literacy within a Thai cultural context by including the Thai Buddhist concept of *sati* (mindfulness). This review article focuses specifically on how the Thai concept of *sati* can be integrated into Western conceptual framing of digital media literacy which results in the 'glocalising' of media literacy through s*ati*. This demonstrates that there can be diverse and culturally-sensitive approaches to the establishment of digital media literacy. Diverse approaches mean that every stakeholder can define their own digital media literacy and lead them to create their own effective approach for learning digital media literacy. The literature review for card game ideation development was used to initially explore a prototype of digital media literacy with the s*ati* tool. The aim of the card game is to encourage players to cultivate the process of critical-reflection, which allows them to create a variety of tailored approaches from their own understanding on the concept of digital media literacy. This critical review article is a first step toward the design of a card game as a learning tool for understanding and acquiring digital media literacy with s*ati* in a Thai cultural context, and to cultivate an internalised learning process through a card game.

Keywords

Digital Media Literacy, *Sati* (Mindfulness), Card game

The lesson leant to the upcoming step of the new exploration

The explosion of the number and variety of new media since *circa* 2010 has resulted in the public becoming bombarded with information and news from numerous sources, leading to the emergence of internet silos, echo chambers, conspiracy theories, disinformation and misinformation. Navigating the plethora of information from new digital media sources requires what scholarship has been calling 'digital media literacy.' Such literacy necessarily begins with another concept called 'self-literacy.' Chaiveeradech (2022, p.261) discussed bridging digital media literacy with the Thai context of '*sati*' (สติ) in the Thai cultural context. *Sati* is a Buddhist concept from the Pali word for 'memory' and means consciousness or mindfulness, meaning to be mindful of the danger of harmful states of being arising. Chaiveeradech's study stated that self-literacy, understanding and realising the origination of popped-up thoughts and emotions, is, like *sati*, an individual pursuit that involves self-awareness and has been commonly applied to individual consumption of the media. Self-literacy can be separated into two aspects. Firstly, Chaiveeradech defines self-literacy as "understand[ing] what is happening in one's thoughts and emotions and reflecting on them with self-awareness that make individuals to realise that all thoughts and emotions are arising, existing and then ending in every second." Additionally, the study went further in identifying the process of self-literacy from another aspect that encourages individuals to observe the patterns of thoughts and emotions that may obstruct their liberation from exogenous oppressive ideologies, social norms, and injustices by questioning and reconsidering how media can construct thoughts and emotions. Secondly, Chaiveeradech argued that self-literacy as social structural awareness in terms of social competence, enables individuals to clarify the structure of self-habituation and the structure of social dominant power that can oppress others in a community system and to observe power being exercised based on cultural background (Chaiveeradech, 2023). This social structural awareness represents an individual's freedom and capabilities in a new version of 'self-realisation.' This allows them to comprehend their capabilities and their rights to utilise their chosen actions with responsibility.

The key concept of media literacy should first be unpacked. The original idea is traditionally defined as 'the ability to choose, to understand within the context of content, form/style, impact, industry and production, to question, to evaluate, to create and/or produce, and to respond thoughtfully to, the media we consume (The National Telemedia Council, 1996 cited by Silverblatt et al, 2014, p.4). And 'the ability to access, analyze, evaluate and create messages in a wide variety of forms' (Aufderheide, 1993 cited by Hobbs, 2021, p.4). Additionally, Livingstone (2004) analyses the concept 'across a variety of contexts' to visualise the relationship among textuality, competence and power. Furthermore, Buckingham (2003) states that media literacy is an outcome, which fosters knowledge and

skills in an individual, therefore, media education provides individuals' critical understanding and active participation. Those definitions emphasise the ability of critical and creative thinking that enables individuals to interpret and produce media which actualises their own right to free thought and expression. Hobbs (2021) mentions Marshall McLuhan, a Canadian scholar who argues that media awareness can increase people's propensity to realize thoughtfully how media shapes them. McLuhan therefore concludes that, 'questioning the media' is the effective approach to cultivate the process of informal learning as a manifestation of 'media awareness' (RobbGrieco, 2018). These 'intellectual technologies' (Tornero and Varis, 2010) redefine the new approach of media literacy. As discussed above, it can be noted that (digital) media literacy requires a process of mindful observation and reflective and active contribution to that media, which demonstrate the importance of an internalised process.

This article notes the importance of the internal process of critical reflection in the literature and argues that it is necessary in order to cultivate self-literacy, but should also be supplemented with 'self-listening' in the sense of 'listening to one's own voice' and 'listening to the voice of others.' The author proposes 'self-listening' as a new skill to be included in digital media literacy. In Thai culture self-listening is an important aspect of s*ati*. *Sati* involves an enhanced intellectual process by observing and understanding one's own voice in relation to the voices of others. This allows individuals to perceive the causes and consequences of their actions, which can have both physical and psychological effects on individuals and others (Chaiveeradech, 2022). In this article self-literacy becomes an essential component of self-realisation practice that involves the questioning of oneself but also the listening to one's thoughts and critically analysing how thoughts and emotions are operating in the mind in order to discern appropriate responses to media messaging. This internal process eventually liberates individuals from socially constraining structures and helps the individual realise their capabilities to become active citizens in the sphere of public discourse. This is an inside-out process, in which individuals become aware of the inevitable reproduction of prejudices implanted by their social background. From this crucial point, the combination of digital media literacy with s*ati* as a component of self-literacy, with the objective of reinforcing capability, encourages individuals to see the patterns of *personal experience* of social structure and power relations. This enables them to observe and understand their own social power relations through their own personalised approach to cultivating self-literacy within both formal and informal learning, for example, participating educational courses, getting tutorials and searching from online materials. These capability outcomes suggest that the concept of s*ati* (mindfulness) can be related to digital media literacy in terms of supporting the process of 'critical reflection.' Critical reflection within a *sati* mindset cultivates individuals to realise

that problems and resultant suffering are caused by thoughts and emotions that lead to actions while they consume the media.

Furthermore, this article explains how the integration of Western conceptual framing of digital media literacy with the idea of *sati* constitutes the *glocalisation* of media literacy. This means the development of diverse and culturally-sensitive approaches to establishing digital media literacy in different communities. Additionally, the term *diverse approaches* itself, means that every stakeholder can have their own definition of digital media literacy and lead them to create their own approach to acquiring digital media literacy. In the Thai context the key question is whether *sati* can facilitate digital media literacy more effectively and bring out in Thais capabilities that allow individuals to understand both '*thoughts and emotions*' in a Buddhist context to exercise critical approaches to information dissemination and their own *freedom of expression* in a secular context in accordance with their right to be active citizens (Chaiveeradech, 2022).

The question then arises as to how to foster a *sati*-centred approach to self-literacy. One of the most effective learning tools is the game approach. The new direction proposed by this research prioritises this critical finding to explore deeper into the internal process of *sati*-based self-literacy. This can be shown in the praxis of a card game. The aim of creating a card game is to encourage self-literacy learners as players to cultivate the process of self-reflection to enable them to create a variety of personalised approaches to their own understanding of digital media literacy. In particular, it is critical to focus on the internalisation process, or how we as individuals can realise that it is our thoughts and emotions that influence us while consuming media, and how we as individuals can also realise our own capabilities to liberate ourselves and understand the social norms that construct our self-beliefs, which in the end, produce our own 'regimes of truth.' Audi (2011, p.2) has stated that 'being justified in believing something is having justification for believing it.' His statement illustrates how each individual within a given social group cultivates knowledge based on their experiences within that social group underlying the idea that their beliefs can influence them to become part of a process of exercising and being exercised by power.

Figure 1 shows the relationship between digital media literacy and *sati*. It envisages the fluid and dynamic process as an inside-out and an outside-in process that encourage individuals to develop their own critical thinking and competencies from external factors such as education, experiences in both formal and informal situations and social structures. The figure shows how *sati* is an internal mechanism, interacting with moral conduct or *sila* (ศีล), which is a part of a threefold training of concentration or *samadhi* (สมาธิ). *Samadhi* in turn encourages critical reflection or *yonisomanasikara* (โยนิโสมนสิการ) and heedfulness or conscientiousness or *appamada* (อัปปมาทะ) as a motivating force to develop wisdom or *panna* (ปัญญา) (Chaiveeradech, 2022). Consequently, the primary idea of internal factors is to provide

a pausing space for the mind to reflect on the thoughts and emotions that arise immediately, in order to realise how to respond and cope with those things, therefore facilitating the process of wisdom formation.
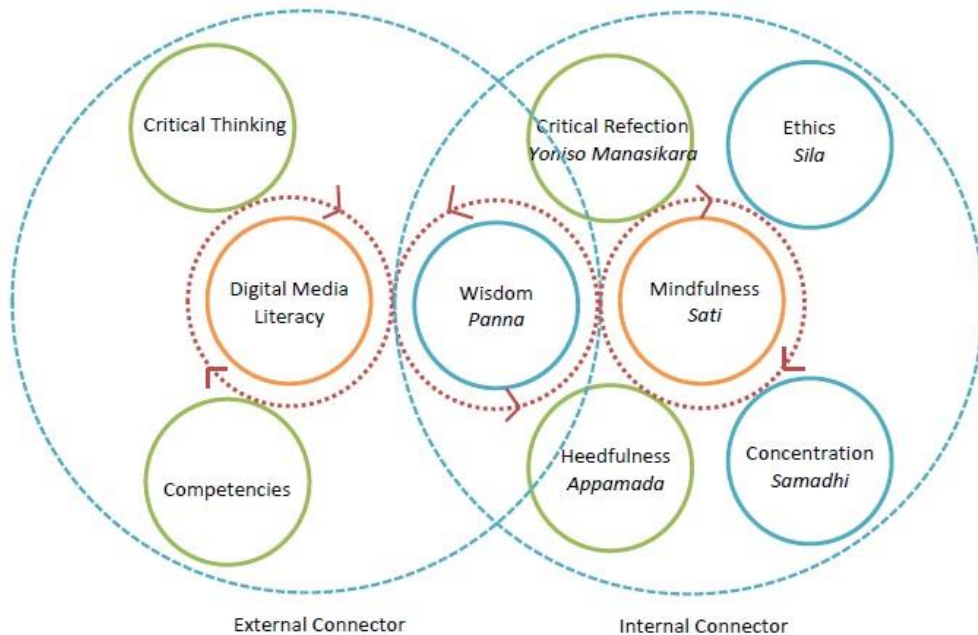
Figure 1 The relationship between digital media literacy and *Sati* (mindfulness)
Source: Author, 2022

Previous studies have shown that card games, in particular, engage the human mind effectively and govern behaviour constituting an intervention for effective cultivation of self-literacy. There are many research studies that have explained how card games can develop players' competencies and help players self-evaluate their own progress through practice (Wintle, 2021). Card games also encourage players to explore motivational mechanisms (Krath, Schürmann & von Korflesch, 2021). Another study has shown that a community of practice, meaning a community that shares cultural practices, will undertake collective learning for improvement of competence and does so through the experience of direct participation (Dodge, 2018). Such self-collective learning tends to result in increased knowledge and self-efficacy (Wilandika et al, 2022), but also develops self-awareness (Kiatsoonsong, 2023), and stimulates learning through enjoyment and engagement (Singh et al, 2021). Additionally, card games are used in various areas of knowledge, for instance, psychology, physiotherapy, palliative care, science, languages, businesses and education. The literature review in this article constitutes a first step in identifying gaps in the knowledge and further questions that need to be addressed in order to clarify how a card game can be

used as a learning tool to understand the complicated concepts of digital media literacy with s*ati* and to cultivate an internalisation of the process of learning through a card game.

Most previous studies have neglected studies of specific interventions in media consumption to lessen under-use, misuse, and misunderstood internet content. Livingstone and Thumim (2003) reveal that most research has largely focused on the usage and technical skills of information and communication technologies but have not studied media consumer critical response and awareness of fast-changing media and information environment. It appears that digital (media) literacy studies need to further categorise areas and themes among the current media digitalisation environment for defining digital (media) literacy frameworks to comprehend the larger picture of digital (media) literacy (Tinmaz et al, 2022). Gutierrez-Angel et al (2022) argue that digital literacy should be taught to graduate and postgraduate students so that they can perceive and develop self-efficacy in the assessment of digital risks. Users' relationship with digital literacy will be considered a psychological paradigm from which it will be able to analyse aspects of motivation, commitment, attitudes, or satisfaction. The relative neglect in consumption-side studies of digital media has generated new impetus for studies among scholars in self-efficacy and motivation, effort expectations, self-conceptualisation and the identification of different roles or behaviours within the context of digital literacy (Gutierrez-Angel et al, 2022). There remain important gaps to be filled and questions to be addressed further in the areas of digital media literacy frameworks and pedagogical themes within theory and implementation praxis. In particular, the internal process of self-awareness in terms of digital media literacy practice has been under-studied.

Self-awareness has been mentioned in several previous studies. Morin (2006) described it as 'direct attention outward or inward and becoming awake to present realities, noticing one's surroundings, and being able to name one's perceptions, feelings, and nuances of behaviour'. And 'here and now experience' (Kondrat, 1999). Eurich (2018) defines two types of self-awareness. Firstly, *internal self-awareness* is how an individual comprehends his or her own values, passions and goals that fit with his or her environment, their repertoire of ways to respond to that environment and act on those goals, and the consequences of those actions on others. Secondly, *external self-awareness* is to understand how others view their environment as individuals that represent empathy, perspective-taking, and relationship building. Moreover, Ashley and Reiter-Palmon (2012) define self-awareness as "an inwardly-focused evaluative process" in which an individual can develop self-determined standards to compare themselves to others within a given environment to improve and cultivate his or her self-knowledge. Additionally, Carden, Jones and Passmore (2021) also bifurcated the concept of self-awareness into two dimensions. Firstly*, subjective self-awareness*, which is a state of consciousness in which one

concentrates intentionally following the stimulation of external motivation. Secondly, *objective self-awareness,* which allows an individual to focus internally on oneself. Morin (2006) stated that there is a process of focusing attention outwardly toward the environment (consciousness) , and inwardly, toward the self (self-awareness). Das (2022) called *awareness* "the sharp focus" that causes an individual to prepare for current and immediate circumstances so as to be able to narrate thoughts, feelings in a comprehensible order. Whereas *consciousness* is "the ability to comprehend the consequences of actions"; particularly, the ability to make decisions with those consequences in mind. These definitions illustrate the crucial relationship between *self* and *consciousness*, which is the awareness of oneself and one's surroundings, and how they dynamically engage with each other and how this constitutes a dialogue between the inner and outer self. Another notable point is that self-awareness can develop both a positive state as self-developed standards and a negative state as negative thoughts (Silvia and Duval, 2001). Hence, there can be a constant struggle between self-perception and self-developed standards while awareness cultivates an individual to concentrate on both positive and negative thoughts and emotions. Castro et al (2023) discussed William James' conceptual formulation on the self and self-awareness, which defined the dual character of 'self-awareness' that relate to the experience of the self and the experience of the world. Similarly, Morin (2006 cited in Castro et al, 2023) described self-awareness protocols as *self-talk* (the process of talking to oneself) and situational self-awareness (current conscious experience).

Silvia and Duval (2001) argued that self-awareness can be a positive state when an individual can harmonise their thoughts, emotions, and behaviour with his or her standards. However, this requires monitoring procedures to demarcate and chart the internalisation process (Silvia & Duval, 2001). Morin (2006) summarized the difference between *self-awareness* as 'focusing attention on self; processing private and public self-information' and *consciousness* as 'focusing attention on the environment; processing incoming external stimuli', Kondrat (1999) suggested that *self-awareness* is a 'simple conscious awareness', which focuses the self on direct experience, in particular, developing the process of self-knowing as 'reflective self-awareness' that can be sub-divided into three components. Firstly, self-reflection, the distinction between 'I' and 'me.' Secondly, the self of an 'I', which examines and reflects on experience. Lastly, the separation between subject-self ('I') and object-self ('me'). These three components cultivate 'self-knowledge' to become a valid awareness of the self, called *reflexive awareness*. This is further sub-divided into three. Firstly, *self-observation* in terms of the observing 'I' and the observed 'me', emphasises differentness and distance between an 'I' and a 'me.' Secondly, the notion of a *transcendent self*, the ability to stand apart to view the self. Lastly, *subjective knowledge*, that knowledge which originates from one's personal unique perspective of the knowing 'I' (Kondrat, 1999).

These definitions of self-awareness are explained on multiple levels and are closely related to the need to examine the stages of self-awareness development. Castro et al (2023) indicated that the study of self-awareness is important in an interdisciplinary approach because self-awareness is complex and multilevel conceptions.

Thai understandings of self-awareness fall within the paradigm of Pali Buddhist cosmology and thought. *Sati* is a close equivalent. In scholarship, *sati* has been defined as an internal gatekeeper to observe the external stimulus that monitors the good and bad things that can come in-and-out of the mind (Payutto, 1995). Therefore, *sati* encourages critical reflection in order to cultivate a pausing moment for contemplating and realising the external incitements to build knowledge (or wisdom in Buddhist terms). In this explanation, *sati* in essence provides a pausing moment that can enable an individual to get back to the present moment and consider the present situation with which he or she is confronted, while reflecting on themselves before responding to the external stimulus (Chaiveeradech, 2022). An unaddressed gap that requires further exploration is self-awareness in terms of the internalisation process, as this is essential for developing a coping and learning strategy for achieving digital media literacy, which underpins an individual's competence development, in the context of the digital media environment.

There have been several important findings from Thai scholarship, related to *sati* that provide an overview of the Thai concept of *sati* in modern secular life. Charoensuk, Pitaksongkram and Christopher (2016) discussed the factors involved in *sati* cultivation derived from Dharmic practices. Four aspects were described: 1) being present, 2) self-awareness, 3) contemplation and 4) being neutral. The factors of mindfulness cultivation were further divided into two categories. Firstly, an *internal factor* is described as belief (in the essence of the Buddha's teaching) and satisfaction derived from four components *sati* practice, 2) observing religious precepts, 3) physical fitness and 4) consistent practicing. And second, an *external factor* is described as acquiring a suitably quiet place for practice, and learning opportunities. Sangprasert (2018) indicates that the mindfulness taught and practiced in health education increases mental health awareness to cultivate self-regulation in health-related behaviour for patients with chronic illnesses such as hypertension. Painuchit (2018) conducted research investigating the tools used by teachers and staff for developing the mindfulness-based practice program in Thai schools. The findings illustrated that mindfulness in schools emphasised six essential components: awareness, acknowledgement, non-judgement, opened-mindedness, being at present moment and letting go of concerns. Itdhitecho and Phrakrupisansalabandit (2022) suggested that mindfulness meditation practice can be a long-term approach to lessen stress, in, for example, learning environments like schools, that causes suffering.

The studies mentioned above, indicate that *sati* practice requires both internal and external supporting factors to cultivate self-awareness. The literature also demonstrates that mindfulness practice in Thailand is inextricably linked to Buddhism. Meditation *samathi* (สมาธิ) is therefore a key component to cultivating mindfulness and is also involved in the process of practice using a spiritual anchor to be an instrument for implementation of a virtuous and merit-accruing life. Thais are familiar with meditation in which they go to a temple or other designated places for meditating determined by the in-and-out breathing exercise method. Surapanyo et al (2022) describe the key approaches to a mindfulness development strategy, which include determining one's physical movement in daily life, and focusing on the direct in-and-out breathing method for cultivating mindfulness to develop a good internal quality of life of students. Tanakornnuwat, Iamsupasit and Srikhruedong (2019 argued that mindfulness practice has a direct positive correlation with happiness, quality of life and well-being in Thai students. Thongolan (2020) conduct a study on the topic of 'the development of mindfulness for peace', with the findings indicating that the development of mindfulness can decrease conflict and create peace in three aspects of an individual's life. Firstly, behavioral aspect, or awareness of verbal and non-verbal actions; secondly, the mind aspect, or cultivating kindness, compassion, and love; lastly, the wisdom aspect, or having wise consideration from critical self-reflection when responding with others.

Silpakit, Suthithammanuwat and Bannaruji (2015) analysed the findings from a survey of mindfulness assessments among both Thai and non-Thai participants that used several Western scales. For example, the Mindfulness Based Stress Reduction (MBSR), Cognitive and Affective Mindfulness Scale (CAMS), Mindful Attention Awareness Scale (MAAS). However, these scales were found to have limitations in terms of the cultural contexts and the participants' interpretation about mindfulness practice between Thai and the West participants with regards to relaxation and realisation. This research highlighted that while the above-mentioned measurements from the western context to evaluate mindfulness can measure something intangible at times, the scales do not account for differing cultural conceptions of mindfulness and realisation. Petchsawang (2019) noted that there was a need for mindfulness in the workplace but that there was a lack of studies on its practical implementation. Petchsawang supplies practical implementation examples of employees being scheduled with mindfulness short breaks, taught techniques of mindfulness listening, and mindfulness exercises before having a meeting. Fundamentally, continual practicing of mindfulness enables individuals to have self-understanding which extends their understanding of others in the workplace, where relationship management is important (Thai Health Promotion Foundation, 2022).

Wasi (2023) emphasised the importance of spiritual health, in which *sati* is one function that cultivates inner development growth that leads to wisdom because of the non-

self or ego-lessness achieved. INEB (2023) reported Tantipiwatanaskul's public symposium talk about the process of an individual's internal growth in which the internal aspect can be divided into four areas. Firstly, inner experience is acknowledged and charted to notice the internal dialogue associated with the mental images that happen together with emotions in each moment. Secondly, memories, or deep-seated beliefs, and expectations that result from the past experiences, are challenged by questioning oneself to reflect on the origins of individual beliefs and expectations and encouraging individuals to stay with feelings and physical sensations that occur in the moment. Thirdly, the basic human needs, to observe one's immediate needs and how to respond to those needs by using the pattern learned from the past experiences. Lastly, recognizing and seeking out moments of peace and stillness, which let thoughts and feelings go from the first area, cultivate silent reactions in order to foster awareness of the automatic sensational reactions. Consequently, the connection between "the pattern learned from the past experiences" (INEB, 2023) and "the habituated behaviours" (Chaiveeradech, 2022) demonstrated in the literature related to *sati* illustrates the patterns of thoughts, emotions and behaviours, which can be established from an individual's cultural background. Therefore, previous studies suggest that *sati* is a supported internal function of self-literacy and can equally help establish digital media literacy in an individual. Like *sati*, self-literacy enables individuals to clarify the structure of self-habituation and the structure of relationships of socially dominant power imbalances that influence them in a community system (Chaiveeradech, 2022).

Digital Media Literacy as *Personalisation*

The concept of literacy has become a pluralised. Digital technologies intrusion into multiple literate matters of everyday life, have forced scholars to reconsider literacy in the plural and reconfigure literacy studies as multiliteracies studies (Garcia, 2021). New media plays an active role in creating a new culture that embeds itself into, and becomes an essential function of, an individual's life. As a result, new media creates shifts in literacy methods and trends of consumption from consuming to presuming media literacy, from functional to critical media literacy and from computer to new media literacy (Chen, Wu and Wang, 2011). A prosumer of new media is described by Toffer (1980 cited by Chen, Wu and Wang 2011: 85) as "…both a producer and a consumer whose half production is for exchange and half of production is for self-use." This means that the process of consuming *and* producing are happening at the same time on digital platforms. Additionally, Pangrazio (2014) notes that digital media cannot be separated the individual's personal affective response, highlighting 'self-curatorship' and becomes a new key skill in a repertoire of critical consumption tools. This new media product supply prioritises 'individual practices', in particular, but at the same time encourages 'critical self-reflection' as a means for acknowledging themselves in relation to the outside world as viewed through the new media

lenses. Such a product may effectively accentuate the power of social dominance and inequality but with varied outcomes on the consumer's mental health and response. Therefore, digital media is designed for an individual's interaction and participation; and critical media presumption is required in order to develop users' competence. Garcia (2021) emphasises that there are numerous approaches to understanding digital literacies, including the extended areas of literacies, for example, psychology and cognition in terms of individual, community and historical change.

Lincenberg (2021) mentions '*emotional self-awareness*' to demonstrate the role of emotions with the impact of digital technologies expansion that engage with the users' consumptions and experiences. The growth of personal technologies has allowed people to personalise their own media to generate their own content. Many users willingly exchange their personal data for 'freely accessible and personalised media that are of advantage to corporate marketing, which dominate the new media landscape in the background. Thus, individuals need to understand personal data values and user risks with personal data dissemination (Van Buggenhout et al, 2023). Chayko (2021) explained that the exploration of self and identity through digital media and communication technologies, construct a personal identity and serve as another platform for 'the performance of identity.' Part of this performance involves individual engagement with different and diverse networks and groups to form relationships and communities for cultivating identities.

Livingstone (2010) argued that there was a tight relationship between textuality, competence and power and that media literacy empowered individuals and democratised society in circumstances of social conflict and inequality. According to Burgress (2007), cultural production was being transformed through new media technologies, and Chayko (2021) believes that identities had become *inauthentic* as a result. This is because they could be edited and developed to act differently in different settings, particularly, in the digital platforms, where individuals communicate what they want to be, depending on social role. This never-ending complex and fluid process, allows for digital technology companies to develop means of measuring and evaluating individuals' online behaviours to customise and give the illusion of personal expression in the declaration of identity that Goffman named as 'performed into being' (Chayko, 2021). Consequently, users personalise their media presence to reflect a sense of place in the maelstrom of seemingly contested social, political and emotional space (Hjorth 2011). In addition to the users' personalised habits in engaging with online curated content, social media users also need algorithmic awareness to unblind their algorithmic bubbles, chambers and loops to balance the interest of users, commercial actors, and societal structure (Eg, Tønnesen & Tennfjord, 2023). Consequently, maintaining relationships in *real* physical space, as well as fostering connections between communities made and maintained online is the key factor to make the experience become more akin to

'real' world interactions and exchanges (Chayko, 2021). Behavioural mechanisms can be designed for connecting and reidentifying individuals' self between real and virtual worlds which requires a *sati*-like awareness of the process of personalisation and building a stronger association between an individual space and external spaces. It visualises the spectrum of interaction within personal experiences and contexts to socio-cultural and political contexts, particularly when utilising media technologies.

Polanco-Levicán and Salvo-Garrido (2022) regard social media literacy as the skill of interpersonal communication within cyberspace for meeting human need of interaction with others. Therefore, the concept of social media literacy refers to the development of cognitive competences in which a combination of critical thinking, socio-emotional competences, and technical competences are crucial for considering to the social context. Livingstone and Thumim (2003) indicated the important of accessibility as a prerequisite of media literacy. This statement calls into question the quality of access out there, and that individuals may require some additional tools to further develop competences.

The process of internalisation in terms of self-awareness through informal learning is a crucial area that meets these requirements and needs further study. Fouquaert and Mechant (2021) revealed a side effect from the echo chamber or filter bubble constituted *'the algorithm paradox.'* Algorithms personalise content based on the browsing history of an individual's search terms, preferences, posts, likes, online profile etc. This thereby reinforces and normalises their existing belief system and thought patterns, perhaps accentuates them, and in essence, turns them into a passive audience. For Garcia (2021) literacies were about 'being connected' and 'being embodied' in narratives that are constructed, given meaning, and connected through cultural contexts to engage individuals across space, time and in both physical and virtual settings. Freire and Macedo's (1987) concept of 'reading the world' is mentioned in Garcia (2021) discussion as meaning understanding texts in digital and non-digital environment with an emphasis on cultural understanding. Therefore, (digital) media literacy is the practice of lifelong learning process and personal development that is not limited to a fixed set of skills, a fixed body of knowledge, or a course in a classroom. Conventional scholarship identifies three ways of understanding the world; direct experience, listening and observing others, and external, in this case media, representation. Hobbs (2021) argues that the media shapes individuals' understanding of reality and can create a profound form of social power imbalance. Additionally, Hobbs (2021) believes that identifying gaps between media representations and the complex of reality, can reveal patterns of storytelling or narrative that serve to deform an individuals' understanding of real circumstances and people. McDougall (2014) argues that media literacy education is an '*incomplete project*' and in need of reform to use more collaborative pedagogical methods that emphasise creativity and citizen-participation. This research study reconsiders this point

and seeks to identify the most effective external factors for digital media literacies learning. For the broadening of digital literacy research and practice, it is necessary to examine diverse approaches to connecting traditional society with digital society and to redefining the concept of digital media literacy, considering the viewpoint of an individual as self-literate, along with the importance of stakeholders' interaction between producers, creators, audiences as user created content (UCC) and user generated content (UGC). Understanding digital media literacy as personalisation restructures the process of self-literacy as a tailored-made tool for personalising each person's requirement. This involves the cultivation of self-knowledge through direct experience in different cultural contexts. Such cultivation may be achieved through self-learning in the form of games.

The Card Game as a Process of Internalisation

Card game development for teaching and learning purposes requires careful research and design. Several research articles have considered this process. Fernandes et al (2023) shared some insightful points on a structured card game design with several stages; each with well-defined objectives to achieve the expected results. The researchers noted that the game must be easy to use, practical, and simple with objective questions. This simplicity will encourage users' involvement and increase self-efficacy. A simple set-up formula will also provide more space for deeper reflection, self-analysis, and self-awareness of users' fear and expectations (Fernandes et al, 2023). The authors hoped that 'the cards facilitate the process of transforming thoughts and feelings into words' (Fernandes et al, 2023), and would help visualising the moment of mentally 'unlocking or releasing.' These observations chime with Bayeck's (2020) research findings, which noted that a game can provide players with space for informal learning settings that can simplify complex real life and create new experiences of learning while contributing new opportunities for exploring the game playing ecosystem. Additionally, game playing acknowledges players active role in investigating and experiencing real situation issues in a safe, flexible way, without consequences (Edwards et al, 2023). Therefore, card games are effective in encouraging learning, recapping key concepts, and engaging players in relevant topic discussions (Gutierrez, 2017). Khoo et al (2023) further noted that *competence* in game playing represents the ability of individuals to understand their capabilities so that they can exercise self-restraint and regulation, and autonomy, when being included and engaged in social environments. This then cultivates the internalisation of learned values and skills.

According to Edwards et al (2023), a game consists of a narrative and the gameplay experience. The narrative delivers motivation in terms of *learning* contextual knowledge from the orientation of a game's theme and story and *applying* it in the game. The interaction between players involved in the gameplay experience through a game's collaborative and/or competitive structure design that motivates players to interact, strategize, and achieve the

goals of the game. In a deep analysis of game playing behaviour, Dodge (2018) applied the concept of communities of practice to game playing that identifies the players' collective learning process based on common cultural practice. Additionally, a game-based learning approach is designed for creating motivational environment settings that encourage players to engaging with challenges through their own direct experience (Soodjai & Srisawasdi, 2021). Kiatsoonsong (2023) found that board games and card games are the most appropriate tools for learning that also builds self-awareness, self-respect and social skills. Kiatsoonsong also argues that the design of a card game should follow the process of design thinking: 1) understanding the problem, 2) defining and framing the problem, 3) brainstorming the idea, 4) creating prototype, and 5) testing the prototype to guide further development of the board game following an initial appraisal discussion. Board games and card games should be designed to encourage participants to ask questions using their past experiences, reveal themselves openly to others and respond appropriately to the experiences of others. This process is like the Buddhist principle of adherence to the dharma, in which the path to contentedness *sandot* (สันโดษ) (and from thence eventually to enlightenment) is a learning process which becomes successful when individuals practice mindfulness with two factors: the inclusion of *kanlayanamitr* (กัลยาณมิตร), a Buddhist concept meaning 'true friend' (friends who guide), and critical reflection (the process of self-reviewing and self-criticism). These two elements create a space for becoming aware of an individual's own habituated behaviour while interacting with external stimuli.

Gutierrez (2017) introduced the terms of 'the playability and playfulness of the game', in which 'playability' refers to the opportunity for healthy competition and cooperation, and 'playfulness' refers to the degree of uncertainty and flexibility in decision making, the level of challenge, equal conditions for fair play, and the level of interactivity. The usefulness of the card game is to practice recalling relevant knowledge, enable productive use of time, and build better relationships with other players (Gutierrez, 2017). Therefore, games are a component of human culture and society, which are structured with roles, goals and challenges to achieve missions. In a systematic review of the research on gamification of learning methods, Krath et al (2021) observed that game-based learning and serious games studies had identified four foundational areas. Firstly, *motivation formation* which fosters autonomy, competence, and relatedness. Secondly, *behavioral outcomes* that focus on behavior change, behavior intentions, and how human actions are influenced by rules, culture, and the community. Thirdly, *learning processes*, which is described as being influenced by 'the role of sociocultural influences and interactions,' and 'vicarious learning (learning by observing others).' Thus, games are adaptively designed for initialisation and internalisation of learning processes and are based on the concepts of experiential learning, participation, and self-reflection. Lastly, *mental processing capability* refers to organising and

connecting learning content to prior knowledge. Consequently, it can be seen that games tend to be customisable to an individual's learning journey by their nature. Such customization or personalization tends to stimulate the cultivation of competence and self-efficacy using heightened self-reflection and dialogue responses which occur during game playing (Krath et al, 2021).

Haas and Tussey (2022) discussed engagement strategies that support literacy through game playing from three viewpoints: collaboration, competition and creation. *Collaboration* provides opportunities for players to balance and fine-tune their strengths and weaknesses while playing a game; *competition* encompasses multiple types of gamified progress to measure and challenge players to reach the goal; while *creation* can lead players to develop their skills that become a catalyst for individuals' learning ability based on literacy experiences through culturally appropriate informal approaches. In addition, Dodge (2018) highlighted Vygotsky's view that describes the process of internalization of external knowledge. Knowledge originates from external social interactions and can be internalised into individualised thought and applicable knowledge to an immediate situation. This research article reconsiders Vygotsky's notion of internalisation, and the ability of individuals to internalise knowledge, arguing that internalisation depends on the experience of meaningful negotiation with others. This article argues that in a Thai context, the process of interaction between internal and external factors, *sati* is a pivotal component. *Sati* provides a dynamically circulating inside-out and outside-in approach to developing competencies of digital media literacy for each person (Chaiveeradech, 2022). Furthermore, Rusu (2019) described the process of individualisation of experiences learned in psychological terms as the stages of the individuation process. Self-realisation can be described using the theoretical approaches of various fields. Jungian theory identifies it as an 'evolutionary process of personality' that involves 'self-focusing' which means the development process of the conscious and unconscious level of the individual. This evolutionary process results in the knowing and deepening of the personality, realising the true self, and reforming or reconstructing the personality. The practicing of individuality necessitates the improvement of inner transformation, sharper instinctual behaviour, and emotional purification to get to contemplation and enlightenment to establish self-realisation.

The Way Forward for Prototype Development

Prototype development of a card game that seeks to maximise self-literacy learning is best achieved by taking into consideration the emotions of the participants at different stages of the game. Chaiveeradech describes 'the process of emotion and thought self-awareness [that] make individuals understand and realise their emotions, thoughts, and habituated behaviours while they are consuming and responding to received contents from media platforms' (Chaiveeradech, 2022). I clarify this observation by dividing it into three

categories. Firstly, emotion and thought self-awareness, secondly, habituated behaviours, and lastly, received content through media platforms. Therefore, this research intends to explore and determine an informal learning tool that encourages individuals to observe and realise their emotions, thoughts, and habituated behaviours. From a review of the literature on the use of games in pedagogy, using a card-game concept to apply to acquiring digital media literacy to stimulate the process of self-literacy cultivation can be used to develop various skills while players are engaged with the present moment of the playing situation. Additionally, card game playing is the process of multitasking skills development that allow players to concentrate on the present moment, create new experiences through an informal learning activity with the pattern of simplicity underlying the ecosystem of the card game.

There are four key considerations when initiating card game ideation for prototype development. Firstly, the method for selecting questions. How should questions be selected and developed for encouraging players to participate in the process of critical reflection? This article adopts Kondrat's crucial assumptions about self-awareness drawn from Gidden's perspective, that defines the self as a social actor and the artifact of a social world that is composed of signs and their meanings, interacting with each other. Therefore, knowledge of self and others is established from the context of social constructions (Kondrat, 1999). Good questions can initially open the pathway to self-inquiry of the self and the social context, which are systematically objective forms of reflection. Kondrat (1999, p. 464) indicated a critical point to support this research that the self is conceptualised as being apart from '*the* world' (externalised structures co-created and co-validated with others) and '*my* world' (the self and social world as internalised and given meaning by the self). As a result, good questions require critical, reflective, consideration by players as social actors engaged in social activity which requires the cultivation of their subjective knowledge of society and self so that they may navigate successfully the objective structures. Dodge (2018) argues that the process of internalisation, in which knowledge originates from external social interaction, and the ability to internalise knowledge from game playing depends on the process of meaning negotiation between a player and others. The game playing process can encourage players to cultivate competence with basic practice. Therefore, playing a card game with the goal of self-literacy in mind and in the design of the game requires a built-in process of self-reflection and this will assist in understanding and realising the patterns of 'personal experience' of social structure and social power relations.

Secondly, card game design strategy requires a step-stage playing structure. Card game staging facilitates a balance space between an individual player and the other players. Edwards et al (2023) point out the ways in which game mechanics can inspire players' engagement with questions and lead them toward the desired outcomes. Fristoe (2015) mentions the importance of game sequence breakdown that help a game designer

understand the different strategies for every part of the whole game's journey. This ideal design comprises of eight components. First, the *goal*. Every game has a goal to complete within a time limit. Second, actions. All players have to take actions that come in various forms, depending on the game's objectives. Third, resources should be used to support players for decision-making and facilitating players interaction. Fourth, games should involve rewards and acquisitions, collecting some rewards to make them get a sense of achievement. Fifth, scoring allows players to engage with the journey of a game. Sixth, elimination. This can result in feelings of failure and futility. However, repeated rounds mean that encouragement to learn paths to victory and to get used to loss through the game's rules remain the game format's strength. Seventh, creating uncertainty and excitement can challenge players to have a well-conceptualised plan for unforeseen and unknown situations. Lastly, interaction. The direct experience of face-to-face social interaction with friends, family and others allow them to experience and deal with moments of conflict, negotiation, cooperation, obstruction, expectation, and treachery.

Da Rosa Feller (2020) divided the phenomena of play behaviour into three categories. First, game play, the rules of the game that encourages players to interact. Second, ludic activities. These are play actions that foster players' imaginations and enable them to learn indirectly. Finally, being playful. The state of being in a playful state of mind that provides meaningful learning in a state of fun from the interaction between players and the game. This point requires some reconsideration of how self-literacy might be achieved in this way and whether meaningful play is derived from the direct experience of players while they interact with a game, the other players, or the environment while playing the game. Mavroudi et al (2022) said that the process of card game design development is initially developed from three components; content, construction and communication. The authors suggested a novel approach to game design with the design stage becoming a part of the game by allowing players to engage, collaborate and share their ideas to provide opportunities to contribute the game's design. All the players become the co-designer of the game they will play. From the perspective of this research, game card playing can cultivate impactful group dynamic as well as the process of self-listening and listening to others, which is crucial for the practice of self-literacy development. As Rajkovic, Ruzic and Ljujic (2017) suggest, a game is a set of processes and activities that engage players with challenging questions for problem-solving, decision-making and investigative activities.

Thirdly, the enjoyment moment of playing a card game, does not just refer to the moments of having fun but more to the moment of realisation, enlightenment, and awareness. Krath et al (2021) uses a flow theory approach and emphasises the importance of the flow experience while playing the game. This flow experience can be described as the 'holistic sensation that people feel when they act with total involvement' (Csikszentmihalyi,

1975, p.36 cited by Krath et al, 2021). This can represent the value of the achievement and enlightenment moment when players feel in harmony with and a part of the game. Da Rosa Feller (2020) stated that the quality of a game in terms of its rules, mechanics, goals, design, determines the experience of engagement with the game and with the other players. Ensuring such quality involved the inclusion of a '*magic circle*' in the design. This is the artificial safe space for players that allows them to perform actions and forms of self-expression that they cannot execute in real situations. Therefore, '*the magic circle*' is the explorable space for players to figure out some solutions in the playing territory without prejudgement of self or other. And lastly, the group dynamic of sharing and discussing, in the playing of a card game initially provides a key sharing skill, training. Rajkovic, Ruzic and Ljujic (2017) characterise such game-based social relationships in a group as positive and supportive, which allows for both competitive and cooperative elements at the same time. As Bayeck (2020) observed, gameplay creates a natural process of participation that facilitates a space for engaging with multiple approaches. Spontaneous discussion and participation during the game play can facilitate knowledge formation, which is cultivated from direct experience that comes from the process of critical reflection and good friends' feedback as Kanlayanamitr (virtuous friends) (Payutto 1995).

As previously discussed, the teaching and learning of digital media literacy can be better achieved in the Thai cultural context with reference to *sati.* The survey of the literature on both subjects can serve as a guideline for applying the concept of self-literacy to card game ideation in a Thai context. Figure 2 illustrates the directional process of card game design, which sets out the journey of game playing through the process of engagement, challenge and achievement. Focusing on internalisation, which cultivates the inside-out to the outside-in approach by encouraging critical reflection and critical thinking as the basis of knowledge formation. Questioning is utilised to elicit self-inquiry, self-reflection and self-realisation, while group dynamics facilitate the improvisation of sharing, discussing and reflecting from a player and others. Self-listening and listening to others' voices is a new competence for players to acquire in the successful completion of a game. These requirements are determined by rules and create a balanced space between players to air their immediate opinions, thoughts, emotions, and perceptions. This space allows players to observe and understand their habituated thoughts and emotion patterns, which are influenced by their own social backgrounds. The card game is assumed to create the enlightenment moment from players' direct experience to negotiate between an artificial safe space and the real world while they are playing a card game. Knowledge formation can be cultivated from personal experience and other players' feedback as *kanlayanamitr*, to develop an individuals' self-literacy.
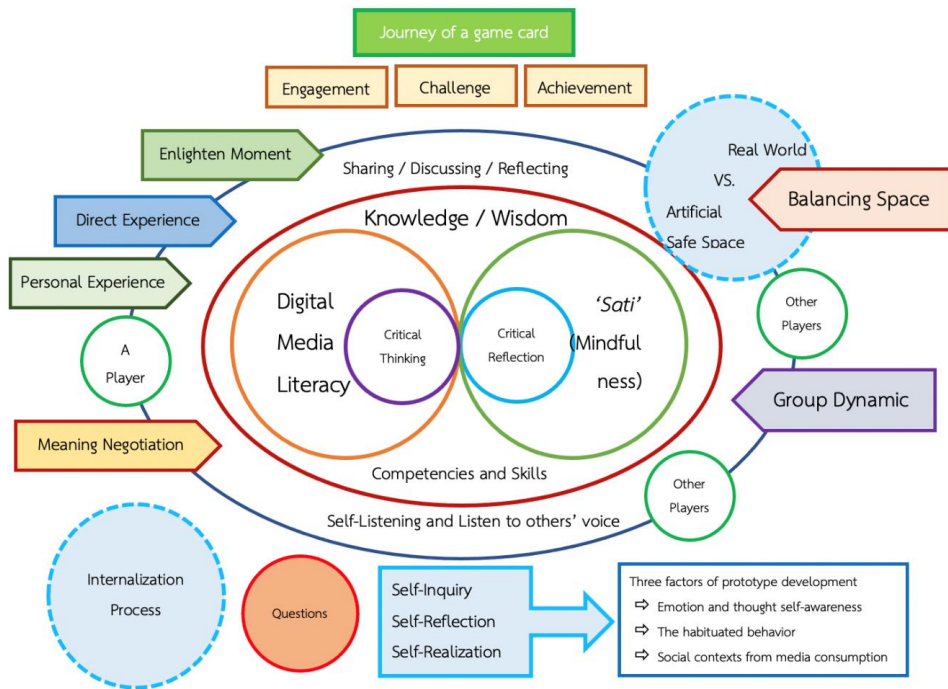
Figure 2 The initial framework of card game ideation
Source: Author, 2024

Therefore, the game can visualise social interactions and the thinking required for them, and reconnect the player to the real-life issues so that they can understand complicated scenarios and play them out in simplified form to deepen reflection and reconsideration of the players. It should be noted however that a game is not a solution, but is just a tool that can encourage players to explore their inner self and recognise causes and problems (Notestine, 2020). In consideration of the previous studies mentioned above, it can be concluded that the process of internalisation combining with *sati* can become a key form for achieving self-literacy in a Thai cultural context. This is an important novel proposal which not only requires further exploration, but also necessitates the redesigning of specific approaches to the fostering of media literacy through game-based learning that are consistent with the Thai cultural context in acquiring media literacy.

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