

The influence of educational background on the self-identity of Chinese Otome game players: a comparative study between higher education and non-higher education players

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Abstract. This study examines how educational background affects the self-identity of Chinese Otome gamers, focusing on professional identity and intimacy ideals. Under the guidance of Erikson's self-identity theory, the study contributes to the extension of Erikson's self-identity theory in the context of East Asia as a case study. Applying qualitative methods, the study collects data through 13 in-depth interviews with participants with different educational levels, leading to the discussion in the context of Chinese social characteristics. The findings show that players with lower educational backgrounds are more inclined to explore diverse occupational roles in the game and are more attracted to roles with power. On the contrary, players with higher educational backgrounds tend to map out clearer career paths and regard gaming primarily as an emotional connection rather than career exploration. When it comes to intimacy, players with higher education prioritize emotional bonds and choose characters that fit the values of depth and stability. Meanwhile, the other group in this study prefer characters of higher economic or social status, reflecting traditional ideals of security and support. The study bridges the gap between Erikson's theory of self-identity as applied in the East Asian context and the lack of education level as a variable to be discussed in the field of Otome games. The results highlight the role of Otome games in influencing players' self-identity and emphasize the potential for designing games that offer diverse character exploration and emotional engagement in the future.

Keywords: Otome game, self-identity, Chinese players, occupational identity, intimacy components

1. Introduction

As digital entertainment increasingly becomes part of everyday life, Otome games, the relationship simulation games aimed at a female audience, have garnered considerable attention in East Asia, particularly in China in recent years. These games allow players to engage in complex narratives that often include career exploration and intimate relationship building. While Otome games serve primarily as escapism and entertainment, they also play an important role in shaping the player's self-identity, particularly in terms of career choices and relationship ideals.

The purpose of this study is to examine the influence of educational background on self-identity in Otome games, particularly as it relates to players' concepts of occupation and intimate relationships. Existing literature suggests that self-identity is influenced by social factors, including educational attainment, cultural background, and gender expectations, which directly or indirectly affect one's occupational identity and ideals of intimacy [1]. In addition, the gap between traditional Chinese gender expectations and the growing values of individualism and liberalism highlights the changing and conflicting perspectives on career and relationship norms among female dyadic players.

Using Erikson's theory of self-identity as a framework, this study explored how the Otome game facilitates the development of players' self-identity according to their educational background. Through in-depth interviews, it answered the following two questions in the context of China?

RQ1.1: Do Otome games affect players' professional identity?

RQ1.2: How are people with high and low education affected by Otome games differently?

RQ2.1: How does the portrayal of intimacy in Otome games affect players' realistic expectations?

RQ2.2: How are highly educated and less educated people affected differently?

In answering the questions, the study provided insights into the wider implications of Otome's game design, aiming to inspire game developers who can use these findings to create game experiences that are both rich and reflective of different social and cultural realities.

2. Literature review

2.1. Conceptual and theoretical framework of self-identification

2.1.1. *Basic concepts of self-identity*

The fundamental concept of self-identification, which encompasses an individual's perception and assessment of their own identity, responsibilities, and values, has been extensively examined and interpreted by a variety of theories within the fields of psychology and sociology. Within the psychology domain, self-identification is commonly interpreted as a person's thoughts and emotions around their own identity. This idea highlights psychological processes that occur within an individual, including self-efficacy, self-worth, and self-concept [2]. In contrast, the study of sociology views self-identity more as the outcome of an individual's interactions with cultural surroundings and social structures [3]. Self-identity is a complex and ongoing process that humans create through social interactions. Individuals ascertain the legitimacy of their own identities and abilities by engaging in comparisons with others and acquiring feedback [4]. Since Erikson first proposed the theory in 1954, scholars have gone through several expansions and integrations, and today's research places greater emphasis on the need to pay more attention to the relational, situational, interactional, and cultural components of their theories [5]. In developing self-identity, self-validation is a crucial process that influences an individual's perception of their value and ability, as well as their connection with the social group. Confirmation of individuals' roles enhances their self-esteem and effectiveness, enabling them to maintain a positive emotional state when faced with difficulties and alterations [2]. From a broader sociocultural perspective, the notion of self-identification highlights the socially shaped character of an individual's identity. The process of interacting and communicating with people within a specific sociocultural environment shapes an individual's identity and self-identification. This point questions conventional concepts of the self as a solitary individual and highlights the interaction between social organization and personal identity [1]. In this study, the focus is on exploring the influence of social structure and cultural context on an individual's self-identity.

2.1.2. *Main theory: Erikson's theory of self-identity development*

Based on Erik Erikson's theory, individuals interact with society through many psychosocial stages, shaping and developing their self-identity [6]. Erikson argues that during human development, individuals encounter a series of psychosocial conflicts, each of which aligns with certain social roles and cultural norms. Successfully addressing these crises allows individuals to develop a solid and self-assured sense of self-identity [7]. Erikson posits that the development of self-identity is an ongoing progression that comprises multiple psychological phases. Sokol states that each stage is characterised by distinct conflicts or crises that necessitate resolution [8]. The primary focus of adolescence is the formation of self-identity, often referred to as the "identity versus role confusion" battle [8]. Erikson posited that achieving successful self-identification entails more than just career selection and political alignment [9]. It also involves understanding and accepting personal convictions and society's responsibilities.

Erikson's theory highlights the impact of social and cultural surroundings on the development of an individual's self-identity. He claims that both an individual's contacts with the outward social environment and their interior psychological growth have an equal impact on shaping their sense of identity. Moreover, he proposes that individuals can employ different coping strategies when faced with comparable psychological difficulties, depending on the cultural environment they are in. These coping techniques subsequently impact the process of forming their self-identity [10, 11]. Moreover, research has demonstrated that the conduct and convictions of influential individuals in an individual's social environment, such as family members, friends, and colleagues, can significantly impact the formation of their identity. Moreover, an individual's employment, educational background, and social interactions within their immediate environment shape their identity. Certain professions may necessitate individuals to exhibit distinct behavioral patterns and social skills, which might impact their self-perception and ability to fulfill social obligations [12]. Sokol posits that self-identity is a continuous and lifelong process, not limited to a single moment [8].

In examining the primary obstacles and constraints of Erikson's theory within the Chinese socio-cultural framework, I considered multiple crucial elements, including culture, race, and gender norms. Although cultural and racial elements are considered by Erikson in his theory [13], in practical applications, these are frequently overlooked or treated simplistically. In a multi-ethnic and multi-cultural country or region such as China, researchers' perspectives should be more open and inclusive, fully considering the particularities and commonalities of different cultural groups in the process of self-identity formation [14]; the role of gender roles in individual development is also a limitation of Erikson's theory. Although Erikson's theory does not directly ignore gender issues, a more nuanced consideration of how gender roles affect an individual's psychosocial crisis and identity development is needed when exploring female development [15, 16]. In a society such as China, where traditional attitudes and modern values coexist, changes in gender roles may have an impact on an individual's psychosocial maturity. It is worth mentioning

that Erikson's theory emphasises the influence of the social environment on the development of the individual, and in China, the family and social networks play an important role in the psychological development of the individual. Therefore, in the localised adaptation in China, research may place more emphasis on family and community support systems and how these systems help individuals form their self-identity.

2.2. Influence of educational background on self-identity

2.2.1. *Influence of higher education on individual self-identity development*

Most people agree that one's concept of self develops in great part throughout the time of higher education. Erikson's thesis holds that teenagers are a vital time for people to define their career and ideological allegiance. Completing this stage is essential for developing a strong sense of self-identity [17, 18]. Research has shown that college freshmen see an increase in the intricacy of their sense of self during their first year of enrollment, particularly in terms of self-confidence and their perceptions of their body and looks [19]. Social interactions and surroundings also affect higher education students' self-concept and performance [20]. Remember that higher education still affects psychological development and self-identity after middle adulthood. Studies have discovered that the level of education has a notable influence on the personal growth of older individuals, especially at the later stages of their lives [21]. This suggests that not only is more education vital in early life but also has a long-lasting impact on a person's psychological and social development throughout maturity.

Increased education may not always be beneficial. The move to higher education highlights gender inequalities. Jackson found that female students' intellectual self-perception in certain areas declines significantly, but male students' do not [22]. This phenomenon could be connected to the influence of strong competitiveness and cultural expectations on gender roles inside a university. Moreover, improved education is related to self-esteem and self-worth [23]. Educational achievements define social position and self-worth, which can be influenced by further education.

2.2.2. *Comparative study of higher education and non-higher education*

Adult education and occupational training affect self-identity differently than higher education. Non-tertiary education promotes career development and lifelong learning, while higher education stresses academic research and theoretical understanding. Adult education and vocational training improve professions, skills, and interests. In contrast, higher education prioritizes academic accomplishment and intellectual progress [24, 25]. Non-formal vocational training and adult education programs can accommodate working people's schedules and learning needs. The adaptable method allows learners to gain knowledge and skills while working, promoting personal and professional development [25]. Non-tertiary education may emphasize personal growth and social interaction, which can shape self-identity. Non-formal education programs, such as the one mentioned, enhance learners' self-assurance and promote a feeling of belonging in society by providing practical skills and fostering community relationships. Furthermore, it has been observed that this form of education has the potential to foster gender equality [26]. Ultimately, non-university types of education and tertiary education diverge significantly in their influence on an individual's self-identity. Vocational education places greater emphasis on addressing the practical requirements of adult learners, offering adaptable learning choices, and highlighting the practical application of knowledge and personal development.

2.3. Applications of self-identity in game studies

2.3.1. *Application of self-identity theory in game studies (and Inadequacies)*

The main objective of using Erikson's self-identification theory in game research is to investigate and authenticate the identity status of persons at various psychosocial stages by employing gaming environments and activities [27]. This program clarifies for users their social interactions, behavioral motives, and role-playing in games. Emphasizing adolescent self-identity, Erikson's theory of self-identity promotes psychosocial development all through life. As they role-play and encounter different story scenarios, players of games might go through similar psychological development processes. As an illustration, individuals playing games have the opportunity to delve into various professional positions or social identities, mirroring the process of self-identity development during adolescence as discussed in Erikson's theory [18].

Nevertheless, there are certain constraints when employing Erikson's theory in the context of game studies. Erikson's philosophy largely focuses on the reciprocal relationship between an individual and society. On the other hand, gaming environments are usually pre-determined by designers, which might result in differences in social interactions and psychological experiences for players when compared to real-world situations [28]. Erikson argues that psychological crises are natural and very common. Games with cultural impact have a wide range of content and structure that might affect players' mental state [29].

Erikson's self-identity theory provides a framework for game study, boosting our understanding of game participants' psychological and social experiences. To maximize its use in game studies, we must understand and address its theoretical assumptions, measuring instruments, and cultural adaptation issues.

2.3.2. *Effects of game character and plot on players' self-identity*

Players' self-identity is highly influenced by the customizing of game characters. According to self-determination theory, character customization in games satisfies the three basic psychological needs of players, namely autonomy, competence, and belonging, thereby enhancing players' intrinsic motivation and psychological well-being [30]. Specifically, character customization allows players to perceive themselves differently in the virtual world, an experience that reduces the sense of self-discrepancy and increases the sense of identity between the player and the game character [31]. Research has shown that the attractiveness and degree of customization of a character positively correlate with the player's sense of character identity, which in turn affects the player's game flow state and loyalty [32, 33]. Player customization that is both distinct and positive makes them see their character as an extension of themselves, according to Teng[88]. This, in turn, strengthens their emotional bond and commitment to the game. Furthermore, players' conduct is influenced by the psychological impact of character customization. Different virtual surroundings affect the players' predisposition to self-disclose and their self-similarity through character creation. Their social performance and emotional expression change in turn [34]. These components taken together help to explain why character modification is such a useful tool for enhancing players' self-identity.

Game plots, both realist and fantasy narratives, emphasize the importance of immersion, but they affect player immersion in different ways. Realist narratives enhance immersion by providing highly relevant environments and situations that make players feel like they are in the game [35]. Conversely, fantasist stories captivate the player by building a universe full of fanciful details and non-realistic events—a singular experience that can profoundly affect the player's self-perception and self-efficacy [36]. In fanciful stories, players often find themselves more emotionally attached to the game's events and characters; this strong emotional engagement can help the player to improve their sense of self-perception and social identity [37]. Whereas in realist narratives, although the emotional investment may not be as strong as in fantasism, the more realistic simulation of the situation allows players to explore and learn without risk, which is an important form of self-development [38]. In conclusion, realist and fantasist narrative contexts influence players' self-efficacy and self-perception in different ways, and these influences include aspects of game predictability, immersion, emotional engagement, and social interaction.

2.4. Otome games and player behavior in the Chinese cultural context systematic review on empirical studies

2.4.1. *Influence of educational background on players' game choices and preferences*

There are variations in the choice of games and personal preferences among different cultural backgrounds. An empirical investigation conducted by Lukosch, Kurapati, Groen, and Verbraeck revealed that both gender and cultural background exerted a substantial influence on the learning experience of players in a microgame[39]. Further research has also revealed that players from different countries have varied motivations and tastes for different game genres. Gender, country of origin, and the interaction between gender and country define these differences [40]. These findings indicate that the cultural and educational backgrounds of players can impact their preferences and level of involvement with game material. Moreover, the research paper *The Demographics, Motivations, and Derived Experiences of Users of Massively Multi-User Online Graphical Environments* indicates that women who play video games are more likely to prioritize social aspects, indicating a stronger focus on building meaningful relationships with other players when selecting and engaging in role-playing games [41]. Collectivist tendencies in Chinese society have profoundly affected the decisions and tastes of players of online role-playing games (MMORPGs). Collectivism gives the interests of the group above those of the individual. When choosing and playing games in this cultural context, players often give social contact and develop relationships with others more weight [42].

2.4.2. *The influence of educational background on players' self-expression and identity construction in games*

The cultural and educational backgrounds of players exert a substantial influence on their gaming experience and the formation of their identity. *Cultural Framing of Computer/Video Games* emphasizes the importance of cultural framing in computer/video game design [43]. Consequently, the game experience and the formation of one's identity may be influenced by many cultural situations. Individuals' identities are shaped by their interactions with others and the symbolic and cultural context of the social environment. Players who have diverse cultural and educational backgrounds may exhibit more intricate self-expression and identity in games [44]. For instance, individuals who have been raised in a Chinese cultural milieu may display a greater propensity to seek out games that encompass traditional Chinese culture and history. They may also substitute conventional Chinese values to better enjoy, analyze, and evaluate the game. Incorporating cultural components into games enhances players' involvement and has a certain impact on their gaming experience and behavior to some degree [45]. Role-playing online games allow players the opportunity to mold their experience by engaging with other players or Non-Player Characters (NPCs) and constructing novel personas within the virtual community [46]. This social interaction not only enhances the players' gaming experience but also assists in the development and validation of their social identities in the real world. Individuals who have a vicarious grasp of their cultural history may have increased levels of engagement and confidence when taking on these roles in games [44].

2.4.3. Chinese Otome game players' gaming experience and self-identity

Otome games' capacity to satisfy female players' emotional and romantic demands helps to explain some of their success in China [47, 48]. Otome games give women a stage from which to investigate and communicate their sexual orientations and gender identities inside a socio-cultural context. Without being constrained by societal expectations in real life, female gamers in this virtual arena have the chance to investigate several ways of living and create emotional ties that go against conventional gender roles. Studies have shown that individuals can shape their self-perception using avatar imitation of several activities and identities [49]. This shift in self-perception extends beyond the realm of the internet and can influence Otome games' capacity to satisfy female players' emotional and romantic demands helps to explain some of their success in China [47, 48]. Otome games provide women a platform from which to investigate and express their sexual orientations and gender identities inside a socio-cultural setting. In real life, female gamers have the freedom to examine many ways of life and establish emotional bonds that challenge traditional gender roles free from social expectations. Research has demonstrated that individuals' physical perception of themselves can be influenced by replicating avatars engaged in various activities and identities [49]. According to Kazakova, Cauberghe, Pandelaere, and De Pelsmacker, participating in sports and achieving achievement might enhance players' self-confidence and perception of their worth [50]. Although the Otome games provide valuable perspectives on gender equality and diversity, they also perpetuate some gender prejudices. Games often portray female characters as submissive and obedient, reflecting traditional cultural expectations for women [47]. Despite significant efforts to promote the self-identity of female players in games, they nonetheless encounter difficulties and pressures arising from male-dominated perspectives. The conflict and struggle related to gender identification may have a detrimental impact on the self-identity of female players [51]. In addition, game developers typically face constraints imposed by current market and cultural conventions that hinder their efforts to appeal to female gamers through the creation of diverse and intricate female characters [52, 53]. In China, female gamers are not only passive consumers; they are also actively involved in building gaming communities and influencing the development of gaming culture by sharing gaming experiences and creating relevant content [54]. This interaction not only enhances female gamers' sense of community and belonging but also promotes discussions on gender equality and women's rights [53]. Chinese Otome gamers exhibit a wide range of variations and intricacies, ultimately leading to a complex and diverse community. They engage in game culture not merely as consumers but also as active players and creators. Female gamers are making progress in gaming culture and challenging gender preconceptions and market limitations [47, 48].

2.5. Occupational identity and intimacy components of self-identity

Both occupational and professional identity are vital components of self-identification and have close relationships. Both occupational and professional identities have a positive correlation with self-efficacy, so both can be improved [55]. Moreover, growing one's professional identity could help one to connect her personal life, job satisfaction, and basic self-evaluation [56]. These results imply that general quality of life, professional achievement, and happiness are much influenced by one's occupational identity. One must internalize and identify with their job obligations, values, and ethics if one is to build a professional identity [29]. One's social, cultural, and occupational surroundings [57, 58], as well as personal qualities such as views, hobbies, and abilities affect this as well. Medical residents start the process of self-development when they come across cases of violations of occupational identification. Individuals undergoing this process are strengthening, mending, or developing their identity given any conflicts between it and their employment [59].

The quality of intimate interactions has a direct impact on the formation of self-identity. Erikson's theory holds that the formation of a sophisticated concept of self is linked to a deeper level of interpersonal intimacy [60]. Individuals can create more solid intimate relationships as they explore and validate their sense of self. Furthermore, the presence of effective psychosocial growth stages that emphasize identification and intimacy may facilitate the expression of psychosocial components such as loyalty and love [61]. These characteristics are critical for forming and maintaining strong and rewarding partnerships. Individuals in close relationships may experience self-expansion through communication and interaction, resulting in a shift in their self-concept [62]. This phenomenon of self-expansion is frequently beneficial, although it can occasionally include both benign and negative changes. Intimate connections can influence how people present themselves to others [63], highlighting their potential to shape self-identity.

To conclude, the literature review found two gaps in the existing research. Firstly, existing studies have been challenged for ignoring cultural and ethnic diversity. Although scholars have addressed these aspects, including practical applications typically oversimplify or neglect them [64], further research needs to be more comprehensive, taking unique cultural and ethnic backgrounds into consideration [65]. Therefore, this study contextualized in China, a multi-ethnic society. Secondly, the existing research has not explored thoroughly the difference between higher education and non-higher education on the influence of individuals' self-identity in Otome games.

3. Methodology

This study applied qualitative research methods. Specifically, I have conducted semi-structured interviews to examine how various educational backgrounds impact Chinese Otome game players' sense of who they are. The author enlisted fifteen participants for

the interviews using the "snowball" sample technique including filtering through friends, friend introductions, and Otome game forums (QQ groups, Douban interest groups). These volunteers then responded to the study. Following that, the author examined the material of the interviews closely using theme analysis to investigate this subject. The subjects of the study were carefully selected from among 15 Chinese individuals with either high school or college degrees, a range of work backgrounds, and a common passion for playing Otome games. The players ranged in age from eighteen to thirty years old.

3.1. Research method

An optimal approach for this study would be a straightforward method for conducting qualitative research. Qualitative research explores the complex elements of individuals' decision-making and behavior from a broader and more detailed standpoint. Instead of disrupting the natural flow of actions, the researcher in qualitative research examines these behaviors from a natural and comprehensive viewpoint. This encompasses the various members within a group, their cognitive processes, their modes of communication, the established protocols or norms, and the processes by which these protocols or standards are established. Combining these components helps the group to be defined as one cohesive entity [66]. My study centers on how Otome games affect Chinese female gamers. Therefore, it became imperative to carefully survey the research subjects. The objective of this study was to gather data from the participants and address the research inquiries by analyzing their responses.

Qualitative researchers typically gather information through observation and in-depth interviews, rather than using numerical data. The findings are then typically presented in textual format. The facilitator will record the conversation during the interviews and translate it into written text for qualitative data analysis [66]. I will not meddle in the responses of the interviewees in this study; instead, I will concentrate on recording their emotions during the game, spotting trends, and dissecting these, to achieve the aim of performing homogeneous qualitative research.

3.2. Research design

Semi-structured interviews in qualitative research provide a high level of freedom by using pre-drafted subject outlines and a framework that allows participants to answer questions without limitations. This guarantees that the interviewee's crucial perspectives are documented [67]. The research piece focuses on how social Otome games affect women's self-identity. The study will select specific Otome games as research cases and examine the occupational identity and intimacy aspects of self-identity. During the interviews, the researcher will emphasize urban Otome games and inquire about the characters' career settings to ensure that the interviewees stay on topic and provide relevant responses.

A pleasant interview requires the right setting. This study began with face-to-face interviews in a quiet, comfortable place chosen by the interviewee. Since the participants lived elsewhere, the location required off-site interviews via the Internet. Online one-on-one meetings using Zoom were the most feasible alternative. Individual interviews lasted 30–60 minutes. From simple to sensitive issues handled with participant permission, interview questions vary in complexity. This ensured detailed and adaptive interviews. If the participants consent, the researcher will audio-record their comments for subsequent study to accurately capture their thoughts and feelings.

After the interview, I will utilize thematic analysis. Data analysis relies on fundamental components, known as building blocks, which are essential for achieving certain objectives in the field of research [68]. After each interview, I first transcribed the recorded interviews into text using audio-to-text software, mainly Speechlogger, which has an accuracy rate of over 95% [69], and manually proofread and revised it. Next, I would read it carefully several times to familiarise myself with the data from the interviews, code the content that appeared repeatedly in the interviews, and finally, I would extract the thematic information related to the research questions.

3.3. Research Participants

The detailed information of research participants including age, occupation, and academic qualifications were summarized in Table 1.

Table 1. The demographics of research participants

NAME	AGE	OCCUPATION	ACADEMIC QUALIFICATION	NAME	AGE	OCCUPATION	ACADEMIC QUALIFICATION
Yang	27	PhD student	PhD in Biology	Zhou	28	Middle-school Teacher	Bachelor's degree in literature
Cici	32	Film & TV Company Planning	Master's degree	Su	22	Self-employed	high school education
Nana	25	PhD student	PhD in psychology	Cecilia	24	Working in courts	High school education
Huan	25	Working for a food company	Master of MBA	Ada	26	original illustrator	Specialist degree in animation
Chen	19	Studnt	Bachelor's Degree in Mathematics	Yue	23	Kindergarte-n teaching assistants	Specialist degree in pre-school education
Lin	24	Working for a constructio-n company	Bachelor's Degree in Architecture	Cui	26	Sales	Specialist degree in computer science
Katty	30	Lawyer	Bachelor's degree in Law				

* A specialized degree in the context of Chinese education means that the level of education in cultural subjects is high school but went to a technical school to learn a skill or craft.

3.4. Semi-structured Interviews

13 semi-structured interviews were conducted in total, with each interview lasting for 43 minutes on average.

In these interviews, I endeavored to ensure that each interviewee had a full understanding of the questions and actively participated in the responses to achieve deeper insights. After going through the interview data carefully, I extracted data related to the following three themes: 1) the influence of academic career choices and identity, 2) the influence of academic background on intimate relationship choices and perceptions in Otome games, and 3) romantic ideals and realistic reflections in Otome games. The findings responded to the three main research questions, presented by quoting the original words of the interviewees, and subsequently discussed in depth.

4. Findings

4.1. Gamified expression of occupational identity: the influence of educational background on occupational choice and identity

4.1.1. Higher education players' occupational identities and Otome gaming

According to Erikson's theory of self-identity, an individual's career choice and occupational identity are significantly influenced by his or her educational background. According to Erikson, in late adolescence, individuals face a psychosocial crisis of occupational and ideological commitment, and this stage is a critical period for the formation of occupational identity [70]. Educational background not only provides the necessary knowledge and skills, but also influences career choices by shaping an individual's values, beliefs, and expectations. For example, higher education usually involves a wider choice of courses and more specialized teaching guidance, and students are often required to choose a professional orientation, a choice that not only affects their academic pathway but also directly influences their future career choices [71]. This helps students discover their interests and potential and make career choices accordingly [72]. In addition, mentors and peers in school also have an impact on an individual's career identity by providing career guidance and support and helping students build networks related to their future careers [73]. Seven out of eight respondents with education beyond a bachelor's degree stated that even though the career settings of characters in B-games generate a certain degree of freshness and curiosity for them, their career plans would not be shaken by this.

"I spent my life studying biology, struggling to pass various exams, and spending my days in the lab working on my experimental projects. I'm not going to run off and sell a race car to drive just because my favorite character is a race car driver. What happens to the bacteria in my petri dish in case I die on the racetrack?"(Yang, PhD student in biology)

"I am more impressed by the doctor characters in the game, I feel that the doctors are so smart and calm...but I studied architecture, and my future in this major is to be in the construction industry. This may be my interest, not also have to be, hahaha..."

school teachers often take us to do some practical projects, I think it's quite interesting, I'm still more satisfied with the current work.”(Lin,Bachelor's degree in architecture)

4.1.2. Less-educated players with more trials of in-game careers

Existing research has shown that factors such as employment support, facility and subject support, career competency support, career guidance and employment support for specialist students as well as high school graduates have a significant impact on their career maturity [74], however, it has also been shown that career orientation training for Generation Z with high school qualifications, particularly through gamified interactive techniques, can be effective in facilitating their career choices, which means that even in-game character career settings may have an impact on certain students' career plans, especially for those who tend to learn and explore through games [75]. In conjunction with my interviews, I found that five respondents who had not received higher education reported experiencing different career settings for their game characters through gaming, and they felt that their future career paths were full of infinite possibilities and were open to experimenting with plans that were completely different from their current career paths.

“My current job is not bad, I studied kindergarten teacher in school, at that time, I thought my grades are not good, I can't go to undergraduate school, so I'll go to specialise in kindergarten teacher, it's good for employment in the future... I naturally went to look for kindergarten teacher jobs after I graduated. But now I don't feel that my interest lies in this area, I feel that I can do many other jobs, such as the heroine in Love in the Light and Night, she is a designer, and I also like fashion and design, I would think that if I had learnt fine arts at that time, I would probably be a designer by now.”(Yue,Education specialist degree)

“My family gave me this job and I don't like it, I'm bored. I want to do something 'adventurous'...like a detective in the Book of Undetermined Events.”(Cecilia,High school education)

4.1.3. From game to reality

I found a particularly interesting contrast. The idealised career setting in the game for the more educated respondents was ‘*an ordinary person who shines in his or her field* (Nana, PhD in Psychology in progress)’. The less educated respondents favoured an imperial career setting.

“I love the heroine in Code Name Iris so much, she is the King of Guangling and will become the emperor”. (Cecilia, High school education)

“The game says: Manifest Destiny falls on women. I agree.” (Su , High school education)

The study How Online Gaming Could Enhance Your Career Prospects showed that people in different occupations show different preferences in gaming, for example IT professionals and engineers like to play puzzle platformers that enhance spatial skills, while managers tend to play role-playing games that require organisational and planning skills [76]. This suggests that players' game choices may reflect their career interests and development needs. As a result, respondents with higher education were more excited to encounter a characterisation that was more similar to their field of work. In addition, research in User Acceptance of Hedonic Information Systems points to enjoyment and ease of use as important determinants of a user's intention to use an information system [77] This tendency may result in respondents with less than a Bachelor's degree being more likely to be attracted to roles in games that provide a strong sense of immersion and entertainment, such as imperial roles. They are more open to trying out different careers and may become interested in related careers because of the career settings of the game characters, and their tendency to take on emperor-like roles in games reflects their need for leadership and strategic thinking, as well as showing a greater focus on fun and ease of use in their choice of games. These patterns of behaviour are consistent with their willingness to explore the possibilities of different careers in real life.

Interview results suggest that those with higher education may place more emphasis on the feasibility and unity of career planning, which can enhance an individual's sense of self-efficacy and as a basic self-assessment, which positively interacts with each other [78] whereas those without a background in higher education may be more concerned with different occupational attributes [79]. This difference reflects the different expectations and values individuals have about careers at different levels of education. However, the impact of educational background is not always positive. Some studies have pointed out that overreliance on education as the only route to career success may lead to individuals feeling powerless in the face of career dissatisfaction or transition [80]. In addition, educational background may also exacerbate uncertainty and anxiety in career choices, especially in the highly competitive environment of higher education [81]. This was also indicated in the interviews, where respondents with a bachelor's degree or higher had a linear and narrow plan for their careers. In summary, Erikson's self-identity theory emphasises the important role of educational background in career choice and the formation of professional identity [82], where education not only provides the necessary career skills, but also influences career decision-making by shaping an individual's values and expectations.

It is worth mentioning that some of the interviewees indicated that their career planning and identification are not entirely based on their preferences but will be considered in conjunction with the social situation and family expectations.

“I don't think I would consider trying another career because of my character's career. I wouldn't consider it... I thought it was cool to be a singer or an athlete, and I probably dreamed of being one when I was a kid. But now I feel like those careers are too far away and I've never touched them. Besides, my parents are both teachers, and their expectations of me since I was a kid

were 'It's good for a girl to be a teacher, it's stable, it gives a good impression, and it's more appealing to people when they're looking for a date.' (Zhou, Bachelor's degree in Literatures)

"I'm quite anxious because I'm in sales and my family doesn't think it's appropriate for a girl to do that, they want me to find a rich man to marry...the female characters in the Otome games are all so awesome, they all have independent lives and jobs...it's making me even more anxious, I don't know if I'll be able to be like them..." (Cui, Specialist in Computer Science)

Chinese women face the challenge of traditional gender roles in choosing careers, and a 1989 survey showed that many women tend to choose careers in government offices, science, education, culture, health, finance and insurance [83]. This reflects women's traditional preferences for career choices and also hints at society's expectations of women's occupational roles. However, there is also evidence that Chinese society's view of women's occupational roles is changing. For example, the emergence of more and more well-educated, higher-income and independent professional women suggests that society's expectations of women's professional roles are becoming more open and diverse [84]. As expressed by interviewee Yang: I do research because I want to, and I will be successful in other ones. While this paper analyses the self-identity of female gamers in relation to Erikson's self-identity theory, it should also take into account the differences in Chinese society and culture. More comprehensive research is needed in the future to consider unique cultural and ethnic backgrounds, especially in a multi-ethnic society like China.

4.2. The influence of educational background on the choice and perception of intimacy in Otome games

4.2.1. Romance options in the game for players with different levels of education

According to Motivations for Play in Online Games, players' motivations for playing games can be categorised into three main components: achievement, social and immersion [46]. This suggests that players' gaming behaviours are not only for entertainment, but may also involve seeking a sense of achievement, making social connections or deep immersion in the game world. For role-playing games such as Otome games, female players are more likely to be driven by the motivation of 'relationship' [46], which implies that they are looking for emotional connection and intimacy with their game characters. However, education level is a potential variable that may affect players' perceptions and responses to these game elements. Almost all respondents with a bachelor's degree or higher stated that 'my partner's education must be similar to mine.' Research has shown that individuals tend to choose partners with similar levels of education as themselves, a phenomenon known as educational homogeneity. This choice may be due to similar values and lifestyles brought about by shared educational experiences, which help to complement and support the partners. In addition, individuals from higher education backgrounds may be more inclined to seek out partners with similar educational backgrounds, possibly because they perceive such partners to be more able to understand and share their life experiences [85, 86]. Higher education players are also more inclined to choose roles in the game that match their abilities, such as doctors and lawyers.

"I really pay attention to the characters of the professions that I often come into contact with in real life first inside the game eh, for example, if I'm a lawyer, then I would definitely pay more attention to the male characters of the lawyer profession." (Katty, Bachelor's Degree in Law)

"If there is a character who is doing research in the lab like me, then I will go crazy to brush up his favourability." (Yang, PhD student in biology)

Respondents with less than a bachelor's degree, on the other hand, seemed to be more enamoured with more powerful and capable male characters.

"I especially like mature male characters, such as Li Zeyan, who is the domineering president. It's the one who has the ability to help me solve all kinds of problems, life-wise or financial-wise. That's what makes a male attractive." (Yue, Education specialist degree)

"Charlie Sue, I like Charlie Sue the most! He's rich and handsome, so I don't have to worry about anything with him." (Su, High school education)

"I think every girl would choose a domineering CEO, no one would choose a poor guy, right? I can't meet him in reality, but there's nothing wrong with choosing him in the game!" (Cui, Specialist degree in computer science)

According to resource substitution theory, women with lower levels of education may seek partners who can provide emotional support and financial security to improve their socioeconomic status and mental health [87]. In addition, from the perspective of social class and gender roles, women with lower levels of education may be more inclined to choose partners who are able to take on traditionally male roles, such as the breadwinner of the family [88]. Additionally, women with lower levels of education may place more importance on their partner's economic stability and social status, as these factors are directly linked to their opportunities for social advancement [89]. However, it has also been noted that even in groups with lower levels of education, people still tend to choose partners with a similar level of education to their own, suggesting that education level still plays a role in partner choice [90]. This is also evidenced by relevant data in my interviews, for example, interviewee Ada (Specialist degree in animation) said 'I might still prefer male characters in ordinary professions, the president kind of role makes me uncomfortable.'

4.2.2. The key part of intimacy

Through the interviews, I found that the word ‘bond’ was brought up frequently, especially by respondents with bachelor's degrees and above, who seemed to value the strong emotions brought about by the bond between characters. Interviewee Nana mentioned, *‘Special bonds make us irreplaceable.’* The study *What factors attract people to play romantic video games?* reveals the importance of people seeking humanised voice and touch in romantic video games, suggesting that players seek emotional satisfaction in virtual relationships [91]. This quest for emotional depth may be more pronounced among female gamers with higher education, as they may be more inclined to seek deeper emotional experiences. Higher-educated Otome gamers do value emotional connections between their characters and are more likely to be attracted to ‘bonding’ types of emotional development. This is supported by the emotional connections they form in role-playing games and the formation of emotional attachments to game characters [92, 93]. Also, the emotional depth they seek in romantic video games reflects the importance they place on emotional development [94].

“What attracts me most to Otome games, I think, is the plot. The entwined relationship, the bond of me running away and you chasing me, I think that's what love is all about, you know, that's the soul.” (Zhou, Bachelor's degree in literature)

“My favorite character and I are childhood friends, it's a very deep bond, we have a long story that started before we could remember.” (Huan, MBA degree)

“Yes, I would consider him as my emotional backbone, the moment I come home from work and switch on the game, I see that he is still there waiting for me, and I am touched...because we have had a hard time together, and he is very special to me.” (Katty, Bachelor's degree in Law)

Among respondents with less than a bachelor's degree, their answers to the question ‘What is the most important element you look for in an Otome game?’ were more focused on characterization. The answers to this question were more focused on characterization. This may be because they see gaming more as a way to escape from the pressures of reality [95].

4.2.3. Romantic ideals and realistic reflections in Otome games in the Chinese context

This society expects too much from women, but we get too little.’ (Yang)

Before doing the in-depth interview on this topic, I didn't anticipate that the answers of the two interviewed groups split into two groups because of the variable of education level could be so unified. That's why I made it a separate sub-section, which can be seen as a stand-alone existence or as an extension of the theme. However, it is important to explore the situation of women in intimate relationships in the Chinese context.

In intimate relationships in the Chinese context, women face multiple challenges and expectations, which are often closely related to traditional gender roles, cultural values and social structures. First, traditional gender roles have a significant impact on women, who tend to bear more sacrifices and responsibilities in intimate relationships. For example, women who adhere to traditional gender roles are more likely to experience partner violence [96]. Modern society still emphasises the division of labour in the family of ‘the man is in charge of the outside and the woman is in charge of the inside’ [97,98], which not only limits the scope of women's social activities, but also influences the way they behave in intimate relationships. In terms of emotional expression, traditional concepts emphasise that women should remain gentle, submissive and subtle. In terms of same-sex intimacy, Yan Geling's work reveals the expectations and fears behind intimate relationships between women, as well as the lack of support for the reality of the legitimacy of same-sex love [99]. This suggests that even in non-heterosexual relationships, women face dual pressures from tradition and reality.

“I find men annoying. I have tried to communicate properly and long for him to understand me, but it doesn't actually work...how dare you meddle in my work when you're in a relationship, thinking you're my leader?” (Yue, Education specialist degree)

“Do you know how funny it is? My ex-boyfriend said I'm too busy working and it's not good for me to bring up a child in the future. Is he crippled? Or that my kids are single parents? He woke me up. I thought the marriage would be happy, but it probably wasn't.” (Huan, MBA degree)

“If real-life men deserved to be loved, I wouldn't be playing Otome games.” (Cici, Master degree)

Almost all respondents expressed distrust and disapproval of real-life intimate relationships. With the improvement of social education and the advancement of women's emancipation movement, women's views on intimate relationships have changed significantly. They pay more attention to their personal emotional needs and self-actualisation, rather than just seeing intimate relationships as a must-have alliance [100]. In addition, the individualistic and liberal ideology in Western culture encourages women to pursue personal happiness and self-actualisation [101, 102] but collides with the expectation of women's submission to the family in the Chinese and even East Asian contexts, leading to a high number of contradictions in some of the intimate relationships. Otome games provide a utopian stronghold for players, because in these games, no men will speak to you from the perspective of the ‘superior’; they all respect women, and are even eager to be taught. The line of the male protagonist in *Love and Deep Space*, Shen Xinghui, ‘You seem to know everything, can you teach me?’ reflects women's desire to be taught in intimate relationships. reflects the expectation of women in intimate relationships who long to be seen and recognised as the dominant party. Lu Shen, the male protagonist of *Light and Night*, criticises the traditional belief that women are most beautiful on their wedding day. ‘If it's hard for a girl to go back to her former beauty after marriage, then marriage sounds like a disaster. I hope you

are strong and confident every day, that's the real beauty.' This maps out contemporary women's desire for equal, independent and respectful relationships. *'Otome games have really taught me well to love myself and others.* (Chen, Undergraduate maths student)' Players were able to re-examine the health of real relationships by reconstructing their perceptions of intimacy through the concepts of relationships portrayed in Otome games. Both groups interviewed strongly agreed that they would not try to find in-game relationships in reality, *'Because you can't change a person.* (Cici,)' and that *'Behind all the charming male characters in games are the souls of the female planners.* (Chen) . 'The concept of female independence, such as that embodied in Jane Eyre [103], is also facing challenges in its acceptance in China. On the one hand, cultural differences have led to barriers to the understanding and acceptance of Western feminist concepts [104]. On the other hand, the promotion of women's sense of independence and the pursuit of gender equality in modern society are facing real challenges such as workplace discrimination and family pressure [105]. These responses appear to be an indictment of intimacy, but in reality the core concept is the pursuit of a self that is free from the influence and control of others [106]. Men and women appear to be balanced in terms of power relationships. In essence, however, throughout the course of history, patriarchal society has never ceased to discipline women [107, 108]. Nonetheless, at the beginning of the 21st century, more and more women have begun to embrace relationally independent lifestyles, even though the patriarchal system continues to control them through cultural discourses [109]. Interviewee Zhou voiced, *'I want to live like a man for once with reckless abandon.'*

5. Discussion, conclusion, and limitation

5.1. Conclusion

In response to RQ1, this study revealed the influence of educational background on the occupational identity and intimacy of Chinese Otome game players through in-depth interviews. The results showed that players with different educational backgrounds exhibit interesting similarities and differences in their career choices, identities and interests in Otome games. Players with low educational backgrounds were more inclined to try diverse occupational roles in the game, especially those occupations with less exposure in reality. These players preferred roles with positions of power, such as emperors and leaders. This phenomenon reflects the demand of low-education players to expand their career knowledge through games when their career choices are limited in reality. Comparatively speaking, highly educated players showed clearer career planning and stable career identity, indicating that they have clear career goals for the future in real life. Although the career setting of the characters in the game may trigger a certain sense of novelty and curiosity, it does not affect their real-life career direction. Highly educated players viewed games more as a pastime and focused on emotional plots rather than broadening career paths through games. This difference also further suggests the role of higher education in constructing an individual's career identity, making it more directional and deterministic [23]. However, the influence of educational background is not always positive. An over-reliance on education as the only route to career success can lead to individuals feeling powerless in the face of career dissatisfaction or transition[9], and interview data also suggests that some of the more highly educated are narrower in their choice of career paths. This is the identity construction theory in Erikson's self-identity theory, where career choice is seen as one of the ways in which an individual expresses his or her individuality and demonstrates personal shaping during the formative years[2,59]. At the same time, in the Chinese social context, women's career choices are not exclusively based on subjective ideals, but also incorporate social and family expectations, as discussed in this paper.

In response to RQ2, in conjunction with Erikson's theory, healthy self-identity development is the foundation for successful intimate relationships. During the growth and learning period, individuals need to explore and define their identity, including aspects such as career, values, and lifestyle. This process helps individuals to build self-confidence and a sense of self-worth, which lays the foundation for establishing intimate relationships in early adulthood [8], so in the study with education level as the variable, respondents with different academic qualifications presented different attitudes and reflections. Highly educated players place more emphasis on emotional connections and 'bonding' character interactions, choosing game characters that meet their requirements for emotional depth to satisfy their need for lasting relationships and emotional identity. These players tend to look for partners with similar educational backgrounds and shared values, reflecting their clear demand for realistic mate selection. In contrast, low-educated players tend to choose 'domineering' or high-economic-status characters, and they look for a sense of security and stability in the game, reflecting their expectations of their partner's economic and social status.

However, it is interesting to note the lack of interest in and expectation of real-life intimate relationships in both categories. In the Chinese context, women's roles in intimate relationships to traditional gender perceptions and social structures, but with the development of the women's liberation movement and the rise of women's sense of independence, women's perceptions in intimate relationships are changing. The subjectivity perceived by female players in the games is their vision of reshaping gender relations, which coincides with feminist thinking. When we look at new cultural products, we need to break the shackles of inherent thinking and face them with an open and inclusive mindset. In this way, we can grasp the cultural energy of the 'age of dissolution' and gain a deeper understanding of the changes in social thinking [101].

5.2. Limitations and further research

This paper bridged the gap between the application of Erikson's theory in the East Asian cultural context while exploring the perception of occupational identity and intimacy of female players in Otome games, as well as the use of educational attainment as a variable in the field of research on such games. However, there are still some limitations in the process of data collection and paper writing.

Firstly, as the empirical material of this paper mainly comes from semi-structured interviews, in the selection of interview subjects as well as the process of sorting out, analyzing and integrating the contents of the interviews.

In addition, the consideration of the distribution of education, age, and occupation of the interview subjects is not yet balanced enough, which may make the research findings biased. In order to better increase the generalisability of the findings and minimise potential bias in future studies, I will consider different methods to improve the representativeness of the sample. For example, stratified sampling: Use stratified sampling methods to ensure representation of different educational backgrounds, age groups, and occupations. Broaden recruitment channels: Expand platforms and methods for recruiting participants to reach a wider demographic group. Consideration could be given to adding community groups, professional player organisations and gaming bodies to make the sample pool more diverse.

Finally, variables such as working status, the length of working hours were not taken into account, but these variables may more or less have an impact on the results of the study. Currently, in addition to women's self-identity becoming a key object of research on Otome games, further research can be carried out next on sociological dimensions such as class and social status awareness in Otome games, Otome games' transmission of culture and values, and Otome game community's social interaction and group culture.

5.3. Discussion

The study provided insights into the design of Otome games in the future. Firstly, Otome games can further enrich the career background of the characters, including not only 'cool' careers, but also more traditions in line with the needs of contemporary society, to provide players with more career identity and opportunities to learn about different careers in the game. Secondly, in the construction of intimate relationships, the future design of Otome games can focus on the development process of character relationships in the plot and interaction design, and add multi-level emotional interactions and conflict episodes, thereby players can experience the dynamics of real intimate relationships through their choices. This not only satisfies players' emotional needs but also helps them better understand and reflect on intimate relationships. In conclusion, future Otome games are expected to provide players with rich opportunities for self-exploration through diversified career designs and real emotional interactions while satisfying the dual needs of career and emotional development. Besides entertainment, Otome games are expected to provide positive guidance for players' career identity and emotional needs as well.

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