ORIGINAL RESEARCH ARTICLE

The construction of gamer identity in narratives about video game playing and formal education learning experiences

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This study investigates how video game play influences gamers' formal education through perceptions of their 'gamer' and 'learner' identities. Based on identity foundation in symbolic interactionism, we take gamer and learner identities as meaning structures with both dynamic and stable dimensions. The basis of this gamer identity perspective is identity has a crucial role in investigating learning. Applying a life history approach, we interviewed 10 participants in one-to-one interviews, with three interviews for each participant. Applying the narrative portrait, we analysed participant data. We found that gamer identity construction from video game playing, as a vital meaning structure, has four main aspects, namely in-game identification, social community expansion, restorative effect and meaning recognition, providing gamers with expansive ways to build learner and personal identity as that can benefit their formal education.

Keywords: gamer identity; learner identity; life history; video games; narrative

Identity, learning and video games

Gee (2008) notes that one’s extended commitment to valued identity is essential to deep learning. This is what good games normally do by providing players with immersive identities through characters or avatars or other game elements that can trigger players' value identities. Similarly, Shaffer (2006, p. 69) indicates that 'a computer game can help players talk and think in ways that matter in the world'. Through video games, learners can solve real world problems by taking on professionals role identities and attempt to think and act in accordance with these.

Gee and Shaffer’s theories on game-based learning that related to identity draw on Lave and Wenger’s theory of situated learning and community of practice (Sims, 2022). Through actively participating in the learning context that builds on gaming world, students took on professionals' role identities. From this perspective, their identity lens to investigate learning is hard to replicate within a traditional school system, and thus limits its transferability to school-based learning. Furthermore,
Gee’s identity lens, as applied in education and learning, is limited as different video games’ learning effectiveness variant because Gee’s theory is too general to cover the wide variety of video games, which can have very different impacts on players (Bacalja, 2020).

Nevertheless, Gee’s identity theory remains an influential framework in the field of game and identity studies. Thus, identity can be a valuable perspective to investigate individuals’ learning and educational outcomes from video games play.

**Identity construction in video games**

Many research studies in identity construction utilising commercial video games have focused on the relationship between player and game avatars in role-playing games (RPGs) or games with characters and avatars. Isbister (2016) argued that through role-play in video games, players try on different identities they may not have had the opportunity to experience in real life, supporting them to form non-virtual and meaningful relationships. However, character identification is not the only way to enjoy media. People can enjoy those texts that have no connection with their experiences as well (Shaw, 2015).

Furthermore, video games endow authority to players, allowing them to become the ‘co-author’ of video games. Players perform their identities through game playing experiences and the ‘choices’ they make within the game. As Paula de Aureo (2016) furthers, the game becomes an expressive form, which can help gamers to perform specific identities.

However, for at-risk young males, playing video games can still have negative effects (Pallavicini et al., 2022). Specifically, video games have come in for criticism for their harmful effects on young students’ formal education performance.

Furthermore, compared with male gamers, a female gamer’s identity may be constrained by the video game community’s gender discrimination (Howe et al., 2019). Some inappropriate content can lead to internalising negative attitudes, such as negative body image or can provide a platform for cyberbullying, online harassment, and promotion of gender stereotypes (Kuss et al., 2022; Robinson, 2022). These can all contribute to negative identity constructions for young people.

Nevertheless, game-based learning studies provided connections between learning and video games. Most game-based learning or serious game studies that have covered identity are based on Shaffer (2006) and Gee’s (2007) arguments. Researchers have designed serious games that take players’ identities into consideration to satisfy multiple purposes (Boyle et al., 2021).

However, there are still fewer features in these serious games that can provide students with opportunities to reflect on their identity exploration-related values and self-perception over time through play (Gaydos & DeVane, 2019). Therefore, identity studies should not be limited to the ability of roleplay and identification with characters to equip students with particular values and knowledge. Instead, they should be regarded as identity trajectories with broader social roles and cultural-historical concerns that are mediated by potentially meaningful gameplay experiences. Thus, to deepen the understanding of video game’s learning values from an identity perspective, identity conceptions and theories will be clarified.
Identity theories

Two main identity perspectives are often applied in learning studies (DeVane, 2014), which use Erikson’s developmental identity (Erikson, 1968) and symbolic interactionism’s interactionist identity (Mead, 1934). For Erikson, identity seeks stability and coherence because of the identity defence mechanism, which simultaneously motivates people’s behaviour. While Mead’s identity theory emphasises positions, roles and other’s perspectives. For Mead, identities are socially and culturally constructed products that are continually and actively internalised as self-meanings (Holland & Lachicotte, 2007). Based on Mead’s identity approaches, Burke and Stets (2009) perceive identities as a source of motivation for individual actions.

These identity theories are fundamental to understanding the relationship between multiple identities and their relationship with people’s behaviour and motivation. People refer to different roles, categories, groups and activities to embellish their own meaning structure and this, in turn, constructs the self. It should be admitted that some meanings are more significant for one’s self than others, and this is understood as salient identity (Stryker, 1980). These salient identities have more probability of being activated across different situations. In other words, those who identify themselves as gamer may assume this identity’s salience and commitment, which further contribute to explain and interpret their behaviours and motivations to a large extent. From which can imply video games’ potential learning values. This perspective resonates with occupational identity studies which argue that the meanings of occupations can support researchers to understand their impact on human lives.

In this sense, although video game play is perceived as a leisure activity, for those people who engaged actively and invested a large amount of time and energy in video game play and identified as gamers, video game play can contribute to their meaning and identity construction. Thus, gamer identity can be an alternative perspective to investigate video game play’s potential identity construction that benefits an individual’s formal education through video game play.

Gamer identity and learner identity

The notion of gamer identity is becoming pervasive as the demographic of video games’ players is diversifying and broadening. It is estimated that the number of gamers across the globe will be 3.24 billion by 2023 (Clement, 2021). Furthermore, it is understood that people are more inclined to identify themselves with hobbies and entertainments than their occupations in this post-industrial age with fluid and multiple roles (Filiciak, 2003). In this sense, the term gamer is used to describe the collection of people who identify themselves as a gamer and share common attributes. Key empirical studies focusing on gamer identity mainly discuss its connection with broader social identities, such as ethnic, gender and sexual identities (Shaw, 2015; Vermeulen et al., 2017). However, this may overlook this identity’s role and individual’s agency in personal aspects of identity.

Learner identities are developed in both school and non-school contexts. These identities are crucial to constructing other identities and the self through their interactions to different degrees (Pollard & Filer, 2007). Furthermore, learner identity contains, connects and reflects an individual’s emotional and cognitive experiences of being and becoming a learner throughout their learning trajectory.
This study aimed to find what gamer identity can learners build from video game play, and how these gamer identity meanings can contribute to the formal education of the research participants through learner identity building. In this study, one’s gamer and learner identity are constructed by meanings about how one recognises themselves as a gamer or learner and how others recognise them as a gamer or learner. These meanings can mediate one’s recognition, perception and participation as a gamer or learner in a particular video game play or learning activities and situations.

There is a lack of research in the area of individual narratives that offer insights into the relationship between gamer and learner identity. Most gamer identity studies draw upon quantitative data, specifically survey and experimental methods that focus on role play games to investigate how game players identify with avatars and characters and internalise these characters’ values and knowledge. However, as participants are equipped with various pre-existing identities and different perceptions before such experiments, experimental research focusing on particular video games with limit intervene conditions may not guarantee a satisfactory identity change and construction outcome to be observed.

Crawford and Gosling (2009) argued that besides game texts, participants’ narratives are useful to understand an individual’s gamer identity and real life. As Muriel and Crawford (2018) note, what is important is the experience of identity rather than the identity itself. Therefore, from one’s narrative, we can see more about how one’s video game play and formal education experiences shape and mediate an individual’s roles as a gamer and learner across time and space.

Method
Narrative methods provide a good starting point to investigate individuals’ identity construction, as narrative is the medium through which humans make sense of their identities (Frissen et al., 2015). Specifically, individuals articulate their identities by telling stories. When individuals tell stories, they are not only recounting the events per se, but also their interpretation of these events and themselves within them – storytelling is a process of meaning making (Atkinson, 1998).

Compared with the focus group method, the individual narrative interview focuses on one person’s narrative. The main purpose of this research was to investigate an individual’s identity through their stories presenting their own understandings of their identities, rather than many people’s shared understanding of gamer and learner identities and the resultant common emergent themes. Therefore, the narrative interview allowed the researcher to investigate participants’ narratives and changing sense of identity over time. Specifically, life history method was chosen to frame the interviews because this method can provide researchers with evidence about how people negotiate their identities to help them experience, create and understand their social world’s rules and roles (Goodson & Sikes, 2001). Furthermore, such interviews allow the researcher to present in detail the connection between narrative identity and symbolic interactionism to illustrate that both stable and flexible dimensions of identity can be narrated. Specifically, the life trajectory was divided into educational stages to provide detailed insights into the meanings of gamer and learner identities at each stage, investigating their potential for change and responsiveness to contingencies, rather than solely focusing on the entire life trajectory (Taylor Kay, 2015).
The biographical narrative interpretive method (BNIM) (Wengraf, 2001) was applied as the life history interview method in this research. This method can facilitate a depth of narration that shows in more detail the subjectivities located in individuals’ life histories. The biographical interviews assume every individual has their own understanding of their unique story. There are three sub-sessions in BNIM interviews. The first addresses a single question aimed at including narrative. In the second session, we asked more probing questions regarding points narrated in the former session. Finally, in the third session, we established general interview questions that explored participants’ preferences, self-description, life history, experiences in video game play and formal education, and what these meant in their lives. In each participant’s final interview, we shared primary transcription of the former interviews and first stage interpretated excerpts with each participant and asked for their feedback.

Both China and Scotland have huge and profitable video game markets and players (Ukie, 2018). The different regulations and social discourse between both countries’ video games industry and educational systems can lend various insights into how young people experience and use video games within the same global confluence of culture and technology. There were 10 participants recruited from two universities’ gamer communities from China and Scotland respectively through bulletin board. Interested participants contacted us to express their interest in attending the interviews through e-mail, Discord or WeChat. We discussed the study with them and attached the ethical approval details and consent form. After the potential participants agreed to proceed, we set an appointment at a convenient time. There are eight undergraduates and two postgraduates. Most participants are from animation and computer game development background.

This study's ethical considerations were mainly based on the University of the West of Scotland’s (UWS) ethical codes and principles. The ethical approval was granted by the School of Education Ethics Committee in UWS. Furthermore, all participants approved and acknowledged in a consent form that their anonymised data would be kept for future research purposes. Pseudonyms are applied when referring to participants in this article.

**Data analysis: narrative portrait**

In this research, as we applied predetermined themes referring typology descriptions about gamers, we used template analysis. Unlike framework analysis, which seldom modifies the framework during the analytic process, template analysis emphasises a more flexible hierarchical coding (Brooks et al., 2015). However, the categories and themes constructed from thematic analysis arrange codes of interviews and participants’ narratives in a way that may decontextualise the meanings of the original data. Without understanding an individual’s life history or biography, interpreting their account will be biased. Thus, we turned to the narrative portrait method (Rodríguez-Dorans & Jacobs, 2020) to address this limitation.

Specifically, by combining life story research, in-depth case study research and narrative analysis, this method analyses the narrative data in two ways; first is using narrative forms, second is using themes from all participants’ data. This method combines a thematic approach and narrative approach to complement each other’s limitations. For example, the thematic analysis may ignore the data’s context, while the
narrative approach may ignore abstract meaning across individuals within the data by focusing on one individual.

The narrative portrait method often involves active participation from the participants, giving them the opportunity to co-create the narrative that represents their life story. This can be a powerful means of empowerment since it allows individuals to express themselves in their own terms and to be recognised and acknowledged in a way that is not always possible with conventional research method (Rodríguez-Dorans & Jacobs, 2020).

This research has two analysis sections; the first one is template analysis. The template was designed based on the widely cited taxonomy by Bartle (2006) (to achieve, to explore, to socialise and to kill) and the game categories (Agôn/competition, Alea/chance, Mimicry/simulation, Ilinx/vertigo) of Caillois and Barash (2001), we organised the themes related to participants’ gamer and learner identities based on their gaming goals and purposes. From which, we can investigate participant’s identity constructions as activity is directed by its objectives that are highly related to identities. Furthermore, this analysis can complement Shaffer’s and Gee’s identity theories’ general issues.

The second section is narrative portrait analysis. The first step was to identify characters in the participant’s story, and we highlighted all characters in each participant’s narrative to clarify their stories. The second step was to identify the orientation in time, space and circumstances. The third step was to identify the key events in their stories. This step established each participant’s gamer and learner identities through experiences and stories that significantly influenced their identity constructions and interpretations. The fourth step was to identify the phenomena of gamer identity and learner identity in their stories.

Findings

First, we organised participants’ objectives of video game playing activity as five main themes to investigate the gamer identity, as illustrated in Table 1.

<table>
<thead>
<tr>
<th>Main themes</th>
<th>Sub themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxation</td>
<td>casualness, relief, fun, interest, enjoyment, chance play, slacker, escapism.</td>
</tr>
<tr>
<td>Achievement</td>
<td>win, serious, recognition, competition, competitive, competence, collection, seek presence, pursue power and excitement, aggressive, top ranks, esports.</td>
</tr>
<tr>
<td>Social demand</td>
<td>bring family together, keep contact with friends, deepen relationships, make friends, socialising, gain soft skills, teamwork, shared topics, fandom.</td>
</tr>
<tr>
<td>Exploration</td>
<td>inquiry, strategic thinking, problem-solving, knowledge and skill development, problem-solving, knowledge and skill development, curiosity, side quests, character interaction, fantasy, open world, simulation, nostalgia, academic supplement (learn aesthetic design, learn story writing, find inspiration).</td>
</tr>
<tr>
<td>Economy</td>
<td>boost service, financial demand, make money.</td>
</tr>
</tbody>
</table>

1In competitive video gaming, ‘booster’ is pro players or higher-ranked players agreeing to play on a lower-ranked account, joining the lower-ranked players to make money. The activity is called ‘boosting’.
Furthermore, to expand these themes and indicate to the findings, we used one fundamental part of a Chinese participant – Yan’s life history – as an example to outline his perception of the negotiation between his gamer identity and learner identity through narrative portrait to delineate how one’s narrative can illustrate the identity constructions. Drawing closely on Yan’s expressive linguistics choices, extracts from this are included below. Following that, themes appearing from all 10 participants’ data will be discussed.

In the beginning of his primary school, Yan did not perceive his learner identity and gamer identity as ‘against’ each other because he was good at both. However, at the middle stage of his primary school, his academic performance suddenly fell because he made some delinquent friends. At this point, he perceived video games as ‘against’ his formal education and even related to some bad learning habits. The perception of conflict between his gamer identity and learner identity had begun to appear. However, the delinquent peers were not the only factor that stimulates this ‘conflict’ outcome. Yan commented that parents, teachers, and even the larger social discourse he encountered reinforced his perception of video gaming in conflict with learning. As he noted, ‘... almost all my teachers didn’t accept my video game playing, ...’.

Near the end of his primary school, the turning point was the arrival of another boy to the school who shared video game interests with Yan, but this time, this boy was a smart learner. This one role model verified for Yan that one could be good at video games and formal education simultaneously, leading Yan to reconnect his gamer identity with learner identity. Through this, Yan was able to connect more aspects of gamer identity to his learner identity that might, in turn, motivate his learning at school.

Starting from Yan’s nursery school, his video game experiences covered almost every game genre on the market. He attributed his preference on single player games to the surroundings that developed his loner personality from young age. Specifically, he devoted himself to video games to some extent to seek recognition and verification of himself; meanwhile, he deepened the loner personality from his point. As Yan noted, ‘... my childhood’s video games influenced strongly the extent of my loner character, when I played more, then I was addicted to it all day, without talking to others, ...’. He ascribed teachers’ dislike to his loner personality that was caused by video games to some extent. Besides, he had a tense relationship with his parents because of his poor grades. Although Yan’s mom always bought him brand-new game devices and updated games from the age of three, his excessive play led to punishment from his parents in both physical and verbal ways. Therefore, besides being ascribed to video game playing, he further attributed his loner personality to being unrecognised by people around him because of his poor grades at school and unhappy homestay experiences in primary school.

Instead, he devoted himself to video games to seek the sense of accomplishment and achievement that was absent from his formal education life. As he reflected, the aim of his video game playing was mainly achievement, ‘... For me to play video games alone, to be honest, I prefer to pursue a feeling of achievement in it’.

Furthermore, Yan identified himself affirmatively as a gamer. He used his top 10 ranks across the whole of China in one mobile game to justify his gamer identity. This pursuit of achievement in video games again was one way to pursue recognition

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2Similar to the detention function, this kind of family is normally near schools and is helping those busy parents to supervise their children to do homework after school and offer them dinner and sometimes even sleeping bed.
of himself and to verify his achiever identity. This identity was enhanced in video games that offered him positive feedback. After he commenced senior high school, he became more open, rather than being a loner. He emphasised that the most significant part of his ‘openness’ was this senior high school’s environment in which the people around him were more open and friendly.

Furthermore, Yan indicated that he barely played video games at this stage. From this point, we would argue that his motivation to play video games diminished because Yan obtained recognition from the people around him, especially from school and parents. By saying recognition rather than achievement acknowledges that Yan also had good academic performance before like in junior high school being in a gifted class. Furthermore, this recognition not only refers to Yan’s good learner identity, but also recognised his gamer identity. In other words, what he emphasised as being recognised was his humanity; he was not just a student but a noteworthy person to teachers. Because gamer identity was an important part of his ‘self’, the verification and recognition of this gamer identity fulfilled Yan’s self as well, which supported his good learner identity recognition in his future learning life in university because qualities such as perseverance and inquisitiveness evidenced shared meanings across both his gamer and learner identity.

In summary, Yan used video games as a way to recognise and verify his identities, and we would say his ‘self’. Through video games, he obtained verification and recognition, that he felt he had not obtained from the people around him at key moments to verify his capacity to do things. This verification process was enhanced in video games achievements and manifested as persistence that helped him conquer some difficulties in future life. Furthermore, the larger social discourse and community around him, either impeded or expanded his gamer and learner identity recognition, playing an important role in his video game and formal education trajectory.

Discussion

Dimensions of gamer identity

There are four main themes identified from all 10 participants’ data that related to gamer identity constructions and the relationship between these and potential learning outcomes.

In-game identification

Some participants’ narratives suggest that character-building meanings are developed through in-game identification, especially in those who identify exploration as their main goal in video game play. It seems that some of their role play in games is important for them, particularly where in-game characters are regarded as a role model in childhood. Sophie provides as an example of this. From role model characters she encountered in video games, she learned the characters’ way of thinking, internalised their values and built her personality in response to this, adopting traits of optimism and confidence. As she reflected:

… for Kingdom Hearts, … They [protagonists] can always see the good in things and I always tried to be like that. …, I think I became more understanding based on characters that I played in games.
In her following narrative about time at university, she expands on how she helped her friends to be optimistic during difficult times.

Similarly, Bogost (2011) argues that role play games can enable players to ‘put on’ characters’ shoes with different sizes. Such characters supported Sophie to construct her personality and values that, in turn, construct her personal and gamer identities. These characters have narratives and stories that resonate with players who come to understand characters’ identities and accommodate aspects of these within their own identities.

**Social skills and community expansion**

Video game interaction with other players online or offline can also develop gamer identity through one’s personality, social skills, and community development. In this research, some participants used video games as their main social tools to make friends that share interests with them. These online and offline friends were supportive to them in relieving stress and acting as role models who encouraged them to be good learners.

Video game play, as a way of extending one’s social community, allows players to make friends with those they may not otherwise have an opportunity to. For some participants, video games provided them with a ‘safe place’ to express themselves. As Susan commented, ‘… sometimes I’m different, games give me a chance to just, express myself in a way I’d be too anxious to in real life…’.

Similarly, Sophie reflected that she liked to talk to her friends about their issues and lift them up when they played video games together online. Both of these participants made friends through playing video games who, in turn, helped them with personal issues and academic learning challenges. Some of these friends became role models who encouraged and inspired these participants in their formal education.

In summary, this social-oriented video games play experiences facilitate developing social skills and the development of a wider social network. Through this, one’s gamer identity can be maintained in this social-oriented video game playing with friends who can provide positive feedback, recognition and shared joyful memories. Furthermore, this widening social network developed through video game play may support identity construction, for example that of learner identity, as illustrated in Yan’s story.

**Restorative effect**

The gaming community may not consider gamers with ‘casual’ goal as ‘true’ gamers (Paaßen et al., 2017). However, it seems some participants who identify as a gamer invest much time ‘wandering’ in games without trying hard to pursue achievement or attainment. Through this casualness, without the pressure to be good in games, gamers might attribute their deficiency or incompetence to ‘not trying hard’, which can help one to protect their gamer identity from being abandoned and maintain the significance of video game activity for them. Furthermore, this ‘wandering’ can be relaxing, providing a restorative effect. This restorative effect comes from an escape from real-life struggles and dilemmas that the video game playing affords. For example, Liam noted that video games helped him get away from unhappy high school experiences. Although video games may not resolve their real-life problem, they do
provide a ‘refuge’ in which to recuperate and gain perspective, which was important to the health and well-being of participants and could, in turn, benefit their future learner identity construction.

**Meaning recognition**

Achievement-oriented goals enhanced one’s gamer identity recognition. From which, one would feel a sense of accomplishment and achievement. Gamers with achievement as their primary gaming purpose are often considered to be ‘hardcore’ gamers or ‘true’ gamers (Paaßen et al., 2017). Those games have concrete standards to evaluate gamers’ performance through excellent results and ranks can make participants feel a sense of accomplishment that they may lack in real life and school life. Furthermore, the competitiveness needed to pursue achievement in video games requires engagement and determination from the gamer to conquer difficulties. Through this difficulty resolution process, the gamer is constantly redefining the meaning structure of the gamer identity. This meaning structure manifested in participants’ narratives through their video game trajectory stories. In addition, participants also reflected on aspects of personality that were developed in this meaning structure, such as perseverance, competitiveness, aggression, inquisitiveness and strategic thinking. To win and be an achiever in particular games, one may, for example, develop their maths learner’s identity and mathematical learning, as in Liam’s story:

… there’s all sorts of strategy stuff that you can see in this [game] … a lot of my maths I got into the strategy. And so *Disgaea* was probably the big one that got me into that, and that’s where I realised that I quite like math and stuff if it’s put in a nice way for me…

In summary, gamer and learner identities, as enacted in both video game play and formal education experiences, are constantly constructed and re-constructed through one’s life trajectory, with particular situated life experiences influencing the way in which meaning recognition allows transference between gamer and learner identity (and vice versa).

For those who identify themselves as gamers, unitary standard may not be an appropriate way to identify gamer identity. Rather than that, one’s own story and narrative can be a better way to investigate people’s gamer identity or this type of voluntary identities (Burke & Stets, 2009). Furthermore, the gap that is established between gamer identity and learner identity may impede identity expansion that can provide alternative ways to be more adaptive in this changing society. Rather than making students perceive identities as excluding each other, it is important for students to co-perform their learner identity with other identities they value (Darragh, 2014), which can further help students recognise their learner identity.

**Limitations**

This is small-scale interview research, with a particular social-cultural and historical context, and its findings cannot be generalised. Furthermore, despite asking all participants to verify and interpret their gamer typology and learner descriptions at the end of the final interview session and encouraging participants to read their
transcriptions, our interpretations of their stories cannot guarantee a transparency of meaning. As our own life history and experiences constrain interpretation. Therefore, future work can use more explicit member checking. Asking participants to read preliminary interpretations can enhance the validity of transcription and subsequent interpretation.

Conclusion
Findings suggest that conceptualising gamer identity can be useful when investigating the influence of video games on formal education. Instead of solely focusing on gamer identity through collective meanings, the individual dimension is significant to understand those who identify themselves as a gamer.

Furthermore, taking a life history approach is beneficial when investigating young people’s identity meanings. Through their narratives and interpretations of their own stories, we obtained rich data about their identity meanings. These young adults have rich life history, and the data collected demonstrated how they articulate their identities.

Finally, we identified four main aspects in their gamer identity constructions: in-game identification, social community expansion, restorative effect, meaning recognition. We argued that gamer identity offers alternative and potentially useful meanings that can assist the gamer to further construct their learner identity structure.

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