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# Perceived effectiveness and identity development in gamified intercultural learning among EFL learners

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**Abstract:** Traditional, teacher-centric English as a Foreign Language (EFL) classrooms often exacerbate intercultural anxiety and reduce student agency, leaving learners with passive cultural awareness. This study investigated how a structured, theory-driven gamified learning environment influences student perceptions and the development of global citizenship identity. A survey design that was quantitative to study a specific group of 186 advanced English majors from four public universities. The results revealed a critical psychological paradox. Although the game-like design effectively encouraged teamwork and active involvement in the classroom, turning this online participation into real skills for communicating across cultures was still a very disjointed experience for each learner. Importantly, strong variance analysis showed that a student's identity plays a key role in how they see things; students who feel connected to global citizenship were much more open to using the gamified platform compared to those who focused mainly on their local community. Teachers need to go beyond just using simple rewards and should carefully design game-like learning structures that match the different identities of language learners.

**Keywords:** Gamified learning, intercultural competence, global citizenship identity, identity development, EFL pedagogy.

## 1. Introduction

Intercultural education is an active and demanding process of dialogue, shared decisions, and psychological negotiation rather than a passive transfer of facts (Caetano et al., 2020; de Bruijn, 2019; Luu, 2026). When learners engage with diversity, they encounter deep mental friction. They struggle between adapting to a new culture and feeling completely inauthentic (Vromans et al., 2023). In a successful setting, this struggle builds emotional resilience and cultural humility (Luu, 2026). Yet, actual practice in language classrooms remains shallow. Most traditional textbooks prioritize basic grammar, vocabulary, and standardized exams over deep critical engagement (Alrefaee & Mudkanna, 2024; Peskoller, 2025.). Traditional activities rarely challenge students to analyze their own prejudices. Consequently, true intercultural learning is sidelined by rigid academic routines.

The transition from basic cultural awareness to actual identity development faces severe structural and ideological barriers. At the institutional level, teachers face intense curriculum pressure, a notable scarcity of administrative funding, and personal discomfort regarding critical cultural discussions (de Bruijn, 2019; Gómez-Parra, 2020). Student engagement also remains highly unequal. A large majority of language learners sit at ethnocentric stages of sensitivity, viewing cross-cultural interactions as

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direct threats to their social face (Luu, 2026; Vieluf & Göbel, 2019; Vromans et al., 2023). In EFL classrooms, this identity exclusion is worsened by native-speakerism. Most Western-published materials push a monocentric native myth that causes deep anxiety and linguistic racism toward learners with local accents (Boonsuk et al., 2021; Hajar et al., 2025). Without formal, guided interventions, cross-cultural exposure causes stereotyping rather than genuine empathy (Salih & Omar, 2021).

To overcome these constraints, the educational landscape is shifting toward digital environments to provide the cultural space traditional classrooms lack (Elias & Mansouri, 2023). Even so, gamification in language learning is frequently misunderstood as a simple system of external rewards. Points and badges are often rubbed onto traditional exercises without changing the underlying pedagogy (Luu et al., 2025; Phi et al., 2025). This reductionist compliance might trigger short-term obedience, but it fails to sustain deep student engagement. True gamification must function as a theory-driven psychological ecosystem based on self-determination theory (SDT) to satisfy a learner's deep needs for autonomy, competence, and relatedness (Luu et al., 2025). Basic quizzing tools focus heavily on rapid, mechanical responses that speed up vocabulary recall but fail to promote deep self-reflection, oral fluency, or pragmatic nuances (Boudadi & Gutiérrez-Colón, 2020; Salih & Omar, 2021).

An otherwise well-designed gamified system can easily fail if it ignores cultural and contextual moderators, especially in EFL settings governed by high power distance and examination-oriented traditions (Li et al., 2025; Luu et al., 2025; Phi et al., 2025). In these environments, open learner autonomy directly conflicts with deeply established norms of teacher authority. This friction causes conditioned learners to reject independent responsibility and view games merely as a superficial addition to serious study (Foroutan Far & Taghizadeh, 2024). To solve these limitations, advanced intercultural gamification must turn toward immersive, context-specific platforms like 3D Collaborative Intercultural Games (3DCIGs) that create strong group social presence (Moreno-Comellas et al., 2024). This virtual interaction forces students into collaborative problem-solving, allows them to deconstruct algorithmic stereotypes, and builds a critical AI gaze without immediate real-world social risks (Hastomo et al., 2025).

Progress in this field remains severely crippled by weak research methodologies. The current body of literature relies far too heavily on short-term interventions lasting less than a single month, making it impossible to separate genuine results from a temporary novelty effect (Boudadi & Gutiérrez-Colón, 2020; Dehghanzadeh et al., 2021; Li et al., 2025). Furthermore, a substantial number of studies lack proper control groups and rely on subjective, self-reported questionnaires given to tiny, homogeneous student samples (Boudadi & Gutiérrez-Colón, 2020; Luu, 2026). These studies completely fail to isolate how specific micro-level game elements connect directly to measurable identity shifts (Dehghanzadeh et al., 2021; Phi et al., 2025). There is also a paucity of longitudinal research tracking whether these gamified environments have any enduring impact as students transition into their professional post-graduation careers (Chirciu, 2020).

This study directly addresses these empirical and methodological shortcomings by establishing a rigorous evaluation framework within a formal language curriculum. Moving away from abstract, top-down cosmopolitan theories and short-term reward systems, the study investigates how a gamified framework is associated with native-speaker anxiety, deconstruct deeply ingrained biases, and develop a secure global citizenship identity over an extended period. To guide this investigation, this research explicitly addresses the following research questions:

1. What is the participants' perceived effectiveness of the gamified intercultural learning environment?

2. To what extent does gamified intercultural learning influence the participants' global citizenship identity?

## 2. Conceptual framework

According to SDT, deep learning necessitates autonomous motivation driven by three main needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). Traditional EFL schools frequently use rigid hierarchies to conceal these requirements, producing significant worry about losing face (de Bruijn, 2019). Intercultural gamified learning corrects this mismatch by creating low-stress digital environments. These platforms meet students' essential psychological requirements by providing personal choices, private feedback, and collaborative quests, allowing them to naturally acquire foreign cultural norms without external pressure.

This source of encouragement clearly enhances the mental and social changes mentioned in the Developmental Model of Intercultural Sensitivity (DMIS) and poststructuralist ideas. Developing cultural skills requires a mental change from ethnocentrism, which sees one's own culture as the standard, to ethnorelativism, which accepts different cultures (Bennett, 1986). Often, local students are overlooked in typical settings because of attitudes from native speakers and imbalanced power dynamics, leading them to remain silent in uncomfortable situations (Norton, 2000; Weedon, 1997). Using game-like platforms helps reduce stress by turning challenging cultural issues into simple digital tasks with little risk. These methods tackle imbalances in the classroom by shifting the power of conversation through joint missions, enabling quieter learners to take advantage of their language learning from a stronger position (Norton, 2013).

The current study brings together these three main ideas to show how a digital environment that allows for high agency helps students deal with the mental difficulties brought about by globalization. Globalization forces individuals to handle their local traditions while also being aware of global issues, leading to a mixed bicultural identity (Arnett, 2002). When local beliefs come into conflict with global movements, learners face significant confusion about their identity, which strict institutions make worse by limiting students' sense of agency. By combining the satisfaction of psychological needs, cognitive development, and the negotiation of power, this study presents gamified learning across cultures as a complete solution. This gamified environment enables students to safely explore different global perspectives without facing any real-life repercussions, turning language-related anxiety into personal development and fostering a safe identity as global citizens.

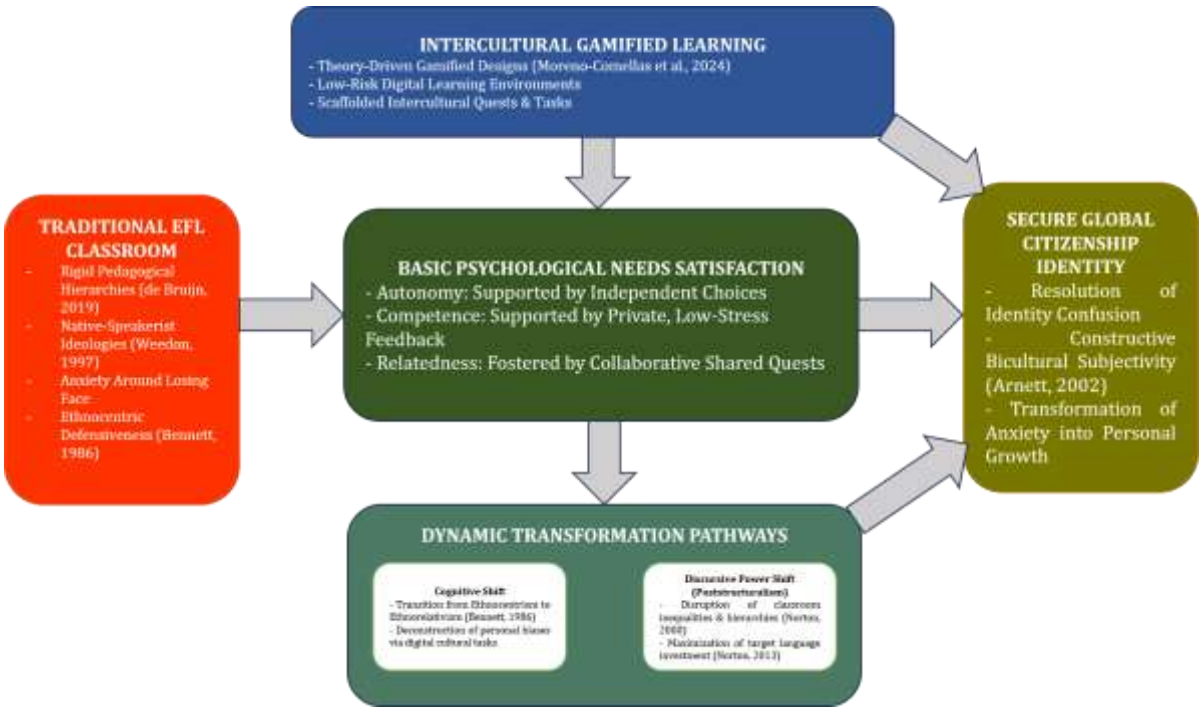


*Figure 1. Conceptual framework*

## 3. Methodology

### *3.1. Research design*

This study aims to carefully understand how students see themselves and how their identity relates to the digital world. To do this, it uses a research method that is non-experimental and focuses on gathering numerical data. This design uniquely brings together descriptive and correlational methods to understand the true experiences of the participants. Quantitative methods are highly appropriate for this kind of research because they help collect objective and standardized data. They also make it easy to measure the relationships between different ideas (Creswell & Creswell, 2018). Instead of testing cause-and-effect predictions, looking into complicated predictive models, or checking set hypotheses, this structural framework aims to outline how students feel in a natural way within the school environment.

A survey that looks at a specific point in time is chosen as the main method for this quantitative study. This method works effectively because it helps gather organized, numerical information from a particular group of learners all at once (Babbie, 2020). The design uses a set survey tool, which makes sure that everyone taking part answers the same questions about how effective they think the gamified environment is and how they see their own global citizenship identity. This study framework gives a clear, data-based starting point that reduces personal bias and offers a dependable, organized view of how a gamified cultural space affects the development of student identity (Fowler, 2013).

### *3.2. Research context and participants*

This research took place at four public universities located in Ho Chi Minh City, Vietnam. The way students learn in these schools is very traditional and focuses mainly on the teacher. Teachers give standard lectures using slides that are mostly text and contain a lot of complicated information. The daily curriculum does not include any digital innovation, interactive technology, or game-like features. As a result, students often experience intense boredom in class and feel mentally tired. They listen quietly instead of being involved in their own learning. This strict, lecture-focused setup doesn't allow

for lively interaction between different cultures. This noticeable lack of education shows that there is an important need for easy-to-use digital solutions.

This research looks at college students in their third and fourth years who are taking courses related to English. This covers topics such as English Linguistics, English Language Teaching (ELT), and International Studies. These advanced learners were selected through a method known as purposive sampling, which looked at specific criteria (Patton, 2014). This approach was selected because advanced students have the basic language skills needed to understand tasks involving different cultures (Dörnyei, 2007) and the developed thinking abilities necessary to handle complicated cultural issues. The process of choosing was influenced by how easily students could get to four public universities and their willingness to take part (Babbie, 2020). The process of collecting samples started with getting the official approval from university leaders and department heads so the researcher could have the right access to the classrooms. After that, the researcher collaborated with course instructors to check possible participants, making sure that only senior students from the designated English majors were selected. Individuals who did not meet these strict academic requirements were not included to keep the data relevant and valid.

***Table 1.***

*Participants' Demographic Profiles (N = 186)*

| Category | | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Academic Year | Third-Year | 98 | 52.7 |
| | Fourth-Year | 88 | 47.3 |
| Major of study | English Linguistics | 84 | 45.2 |
| | English Language Teaching | 62 | 33.3 |
| | International Studies | 40 | 21.5 |
| Gender | Male | 32 | 17.2 |
| | Female | 154 | 82.8 |
| Prior experience with gamified tools | Low | 41 | 22.0 |
| | Medium | 95 | 51.1 |
| | High | 50 | 26.9 |
| Perceived identity level | Local community orientation | 69 | 37.1 |
| | Emerging global awareness | 48 | 25.8 |
| | Active global citizenship | 69 | 37.1 |

### *3.3. Description of the gamified intercultural learning environment*

To ground the perceived effectiveness metrics, the gamified learning environment was operationalized via Quizizz, supplemented by asynchronous intercultural case studies. Grounded in Kolb's (1984) experiential learning theory, the implementation spanned six consecutive weeks, with students interacting with the gamified modules for approximately 45 minutes per week as a course extension to facilitate reflective, simulation-based learning.

The structural architecture of this environment integrated five core game mechanics. Specifically, quests and narratives framed weekly modules as intercultural expeditions where students acted as

global consultants navigating cross-cultural dilemmas, such as corporate misunderstandings or workplace culture shock. To reward task completion, participants accumulated experience points for correctly analyzing cultural behaviors and selecting appropriate linguistic responses. Furthermore, digital badges (e.g., cultural diplomat) were awarded upon mastering specific dimensions like Hofstede's cultural taxonomies (Hofstede, 2011), a mechanism known to enhance intrinsic goal orientation and recognize incremental milestone achievements in intercultural training (e.g., Gibson et al., 2015). Additionally, anonymous leaderboards were visible post-session to promote competitive engagement while protecting individual scores to mitigate face-threatening anxiety. Finally, aligned with cognitive load theory (Sweller, 1988), students utilized customizable avatars and received immediate automated feedback, optimizing working memory and allowing for private, low-stakes trial and error.

The embedded pedagogical content addressed the intersection of language proficiency and cultural intelligence. The tasks required advanced EFL majors to evaluate critical incidents, analyze poststructuralist identity conflicts, and negotiate power dynamics in simulated native/non-native interactions. By translating theoretical paradigms into risk-free digital simulations, the environment was designed to align with the core tenets of SDT and intercultural development frameworks.

### *3.4. Instruments*

*Intercultural Gamified Learning Questionnaire (IGLQ)*

This study used a well-organized questionnaire as the main tool to gather numerical data. The questionnaire was changed from the Intercultural Gamified Learning Questionnaire created by Li (2025) and was later adjusted to fit the particular focus of this research. It includes six items that are rated on a 5-point Likert scale, which goes from 1 (Strongly Disagree) to 5 (Strongly Agree). To make sure the content is valid, two experts in TESOL carefully checked and approved the revised questionnaire before the researcher gathered any data. Additionally, a trial run was carried out with a small group of 20 students from the target group to assess how consistent the tool is internally.

The pilot test showed a high Cronbach's alpha coefficient of .845, indicating that it is very reliable. After getting feedback from experts and looking at the pilot results, the researcher made small changes to the wording to make it clearer and more relevant. The last questionnaire carefully collects information from students on important areas such as their motivation in class, how involved they are, how they improve their skills in different cultures, and how relevant what they learn is to the real world.

To create a statistical starting point for assessing the gamified intercultural learning environment, a careful examination of internal consistency was carried out on the 6-item tool. The dataset was perfectly set up, showing 100% valid cases ($N$ = 186) without leaving out any data. The tool showed a high Cronbach's alpha score of .886, which is very close to the standardized item alpha of .887. This value is much higher than the usual standard in social science, which is .70. This shows that it has strong internal reliability and good connection between the items.

***Table 2.***

*Reliability and intraclass correlation analysis*

| Indicator | Value | F | df1 | df2 | Sig. (p) | 95% confidence interval |
|---|---|---|---|---|---|---|
| Cronbach's alpha | .886 | — | — | — | — | — |
| Standardized alpha | .887 | — | — | — | — | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| Single measures intraclass correlation coefficient | .563 | 8.740 | 185 | 925 | < .001 | [.502, .626] |
| Average measures intraclass correlation coefficient | .886 | 8.740 | 185 | 925 | < .001 | [.858, .909] |

*Global citizenship identity orientation measure*

To categorize participants' identity profiles as presented in Table 1, a single-item, self-categorical measurement approach was employed, requiring participants to select one of three distinct identity orientations that best described their current cultural and global outlook based on conceptualizations derived from Arnett (2002) and established global citizenship identity frameworks (Oxley & Morris, 2013; Reysen & Katzarska-Miller, 2013; Hajar et al., 2025; Salih & Omar, 2021). To minimize subjective ambiguity during selection, each categorical option was accompanied by an explicit operational descriptor on the survey interface; specifically, local community orientation was defined as a primary cognitive and affective attachment to local cultural norms with minimal engagement in global paradigms, emerging global awareness was characterized by a developing recognition of global interconnectedness and ongoing cross-cultural negotiation, and active global citizenship was defined as a proactive identification with the global community alongside high agency in navigating intercultural environments. This self-reported, categorical framework successfully captured a holistic snapshot of the participants' primary identity orientation, thereby serving as the grouping variable for the subsequent comparative analyses.

### *3.5. Data collection and analysis*

The process of collecting data was administered electronically using Google Forms over six months, from May 2025 to October 2025. The digital questionnaire link was created and shared with the participants, along with a QR code that was included. To get a number of responses, the researcher sent out the survey link directly using active communication channels for students. This included class email lists and official class groups on social media sites like Zalo and Facebook. Before participants could look at the survey questions, they had to read a digital consent page. This page explained the study's educational goals and emphasized that their data would be kept completely private. The setup of the Google Form allowed each Google account to submit only one response to stop individuals from entering the same information more than once. Every week, the researcher checked the incoming responses during the collection period to ensure a complete and valid set of data.

The original dataset was taken from Google Forms and put into Microsoft Excel for review, and then it was moved to IBM SPSS software for analysis. To start, the researcher checked how consistent the scale is inside by using Cronbach's alpha, making sure it was greater than .70. Next, the researcher used Exploratory Factor Analysis (EFA) through Principal Component Analysis with Varimax rotation to examine the construct validity. The researcher then calculated descriptive statistics, including average scores (M) and standard deviations (SD), to evaluate how students view themselves and their identities as global citizens. In the end, a one-way Analysis of Variance (ANOVA) was used to look at the statistical differences in identity levels based on different academic years and majors. All the results were checked for significance at a level of $p < .05$.

## 4. Findings, discussions and implications

### *4.1. Exploratory factor analysis*

The exploratory factor analysis showed that the six items shared a stable and meaningful relationship. All correlations were positive and significant at $p < .001$. The values ranged from $r = .389$to $r = .796$. This pattern suggests that the items measured the same underlying construct while still keeping enough distinction between each statement. The strongest correlation appeared between IGL4 and IGL6. This result implies that real-time interaction and practical communication experiences were closely connected in students' perceptions of intercultural gamified learning. The Kaiser-Meyer-Olkin value was .818, which indicated good sampling adequacy, while Bartlett's Test of Sphericity was significant ($\chi^2 = 663.010, p < .001$). These findings confirmed that the dataset was appropriate for factor analysis. The communalities ranged from .528 to .737, showing that all items contributed adequately to the extracted factor.

Principal Component Analysis extracted only one component with an eigenvalue above 1 (3.843), explaining 64.06% of the total variance. This percentage is considered strong for social science research because it reflects a substantial amount of shared variance among the items. In the component matrix, all factor loadings exceeded .70, with the highest loadings found in IGL5 and IGL6 (.858). This result strengthened the argument that the scale had solid construct validity and internal consistency. Since only one factor emerged, rotation was unnecessary. Overall, the findings suggested that the IGL scale functioned as a coherent one-dimensional construct for measuring students' perceptions of intercultural gamified learning experiences, consistent with common recommendations for exploratory factor analysis in educational research (Hair et al., 2019; Field, 2018).

***Table 3.***

*Factor loadings, communalities, and inter-item correlations*

| Item | IGL1 | IGL2 | IGL3 | IGL4 | IGL5 | IGL6 | Communality | Factor Loading |
|---|---|---|---|---|---|---|---|---|
| IGL1 | 1.00 | | | | | | .624 | .790 |
| IGL2 | .612 | 1.00 | | | | | .528 | .726 |
| IGL3 | .648 | .525 | 1.00 | | | | .615 | .784 |
| IGL4 | .389 | .405 | .447 | 1.00 | | | .604 | .777 |
| IGL5 | .581 | .482 | .650 | .669 | 1.00 | | .736 | .858 |
| IGL6 | .574 | .516 | .501 | .796 | .700 | 1.00 | .737 | .858 |
| Eigenvalue | | | | | | | | 3.843 |
| % of Variance | | | | | | | | 64.055% |
| Cumulative % | | | | | | | | 64.055% |

*Note. N = 186. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy = .818. Bartlett's Test of Sphericity: Approx. $\chi^2$ = 663.010, p < .001. Extraction Method: Principal Component Analysis. All correlations are significant at p < .001 (1-tailed).*

### *4.2. Findings*

#### *4.2.1. The participants' perceived effectiveness of the gamified intercultural learning environment*

The overall mean score (*M* = 3.47, *SD* = .61) indicates that students maintain a moderately positive perception of the gamified intercultural learning environment. Looking closely at individual items, the data reveals a clear psychological trend among these learners. The highest mean score was observed for the construct measuring peer collaboration and balanced competition (*M* = 3.51, *SD* = .76), proving that a gamified design successfully drives social dynamics. Students also highly valued the practical

utility of the system, as seen in the high mean scores for real-world relevance (*M* = 3.49, *SD* = .71) and active classroom participation (*M* = 3.48, *SD* = .77).

However, a critical look at the lower scores reveals an important pedagogical insight. Actual intercultural skill enhancement received the lowest mean score (*M* = 3.41, *SD* = .82). This item also produced the highest standard deviation, showing a notable disagreement among the participants. This variation suggests that while students find the structural elements like quests and feedback highly motivating, translating digital engagement into deep cultural competence remains a varied and complex process for individual learners. Pure engagement and enjoyment (*M* = 3.43, *SD* = .76) are clearly not enough on their own to guarantee uniform gains in cultural adaptation.

***Table 4.***

*Descriptive statistics*

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Gamified Intercultural Learning Environment | 186 | 2.00 | 5.00 | 3.4659 | .61148 |
| The interactive and gamified quest system motivated me to actively participate in class. | 186 | 1 | 5 | 3.48 | .773 |
| I found the tasks and challenges engaging and enjoyable. | 186 | 1 | 5 | 3.43 | .763 |
| The gamification design enhanced my intercultural communication skills. | 186 | 1 | 5 | 3.41 | .822 |
| The real-time feedback and guidance provided in the course were helpful in improving my learning outcomes. | 186 | 1 | 5 | 3.47 | .772 |
| The gamified design encouraged healthy competition and collaboration among classmates. | 186 | 1 | 5 | 3.51 | .759 |
| The course content was relevant to real-world intercultural communication scenarios. | 186 | 1 | 5 | 3.49 | .707 |

*4.2.2.* The effect of gamified intercultural learning on the participants' global citizenship identity

The data shows a clear upward trend in how individuals view gamified learning among the three different identity profiles. Students who have an active global citizenship profile scored the highest average (*M* = 3.80, *SD* = .65). This indicates that global citizens who are very aware of their role in the world are generally more open to engaging with interactive digital spaces that are culturally diverse. On the other hand, individuals who had a focus on their local community had the lowest and most steady average score (*M* = 3.18, *SD* = .46). This lower score shows a key mental hurdle, as students who concentrate on their local surroundings usually find it hard to see the immediate benefits of

digitally created intercultural situations. This basic difference shows that a student's personal identity influences the way they see the importance of educational technology.

***Table 5.***

*Descriptive statistics*

| | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|---|---|---|---|---|---|---|
| Local community orientation | 69 | 3.1763 | .45901 | .05526 | 3.00 | 5.00 |
| Emerging global awareness | 48 | 3.3993 | .51770 | .07472 | 3.00 | 5.00 |
| Active global citizenship | 69 | 3.8019 | .64694 | .07788 | 2.00 | 5.00 |

A one-way ANOVA evaluated whether student perceptions of gamified intercultural learning differed across identity profiles. Levene's test was statistically significant, $F(2, 183) = 5.257$, $p = .006$, showing that the assumption of equal variances was violated. To address this violation and ensure data validity, the robust Welch test was applied instead (Hair et al., 2019). The Welch test confirmed a highly significant difference among the groups, $F_{Welch}$ (2, 112.660) = 21.345, $p < .001$. The overall main effect was powerful, $F(2, 183) = 22.783$, $p < .001$, yielding a large Eta-squared effect size ($\eta 2 = .199$). This large effect size means that identity profiles account for 19.9% of the entire variance in student perceptions. Pedagogically, this outcome proves that the observed differences reflect robust patterns; instead, a student's underlying identity acts as a major lens that shapes how they evaluate modern educational technology.

***Table 6.***

*Robust variance analysis and effect size*

| Test Metric | Sum of Squares | df | Mean Square | Statistic | Sig. (p) | Effect Size (η2) |
|---|---|---|---|---|---|---|
| Levene's Test (Mean) | — | 2 | 183 | 5.257 | .006 | — |
| Between Groups | 13.790 | 2 | 6.895 | 22.783 | < .001 | .199 |
| Within Groups | 55.383 | 183 | .303 | — | — | — |
| Total Variance | 69.173 | 185 | — | — | — | — |
| Welch Robust Test | — | 2 | 112.660 | 21.345 | < .001 | — |

*Note.* $N = 186$. Significance is evaluated at the $p < .05$ level.

Since the assumption of equal variances was not met, a Games-Howell post-hoc test was used to look at the specific differences among the three identity profiles. The comparisons between the groups showed that each group was clearly different from the others. The biggest difference was seen between the active global citizenship group and the local community orientation group, showing a notable average difference of .63 ($p < .001$). This big difference shows clear numbers that having a global way of thinking helps students see the importance of practicing intercultural tasks much faster than if they just focus on their local area. At the same time, the middle group called emerging global awareness

had a much higher score than the local group (*MD* = .22, *p* = .048), but their score was lower than the active global group (*MD* = -.40, *p* = .001). This straightforward step-by-step approach indicates a way to understand how learners grow and develop in their thinking. As a student's understanding of the world grows, their willingness to engage in playful learning about different cultures also rises.

***Table 7.***

*Games-Howell post-hoc pairwise comparisons*

| (I) Perceived level of global citizenship identity | (J) Perceived level of global citizenship identity | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| Local community orientation | Emerging global awareness | -.22298* | .09294 | .048 | -.4443 | -.0016 |
| | Active global citizenship | -.62560* | .09549 | .000 | -.8522 | -.3990 |
| Emerging global awareness | Local community orientation | .22298* | .09294 | .048 | .0016 | .4443 |
| | Active global citizenship | -.40263* | .10793 | .001 | -.6590 | -.1463 |
| Active global citizenship | Local community orientation | .62560* | .09549 | .000 | .3990 | .8522 |
| | Emerging global awareness | .40263* | .10793 | .001 | .1463 | .6590 |
| *. The mean difference is significant at the 0.05 level. | | | | | | |

### *4.3. Discussions and implications*

The sudden decrease from working together in social settings to really learning skills for interacting with different cultures highlights a significant shortcoming in the current research on computer-assisted language learning. While earlier research praises gamification as a helpful method to improve language learning (Boudadi & Gutiérrez-Colón, 2020), this study shows that points and badges only ensure that individuals follow the rules. They do not deal with the internal struggle of identity that happens when individuals adapt to different cultures (Vromans et al., 2023). Many standard EFL textbooks treat learning about different cultures as just sharing information without really confronting the biases students might have (Peskoller, 2025). The way this environment is designed allows individuals to feel connected to others and have some control over their choices, which meets important psychological needs (Deci & Ryan, 2000). The low score for skill improvement shows that changing from an ethnocentric view to a more flexible ethnorelative perspective needs careful emotional discussions, not just completing tasks mechanically (Bennett, 1986; Dörnyei, 2020).

The large differences shown by the strong Welch test clearly go against the usual approach of cosmopolitan research that views language learners as one uniform group (Dehghanzadeh et al., 2021; Phi et al., 2025). These results indicate that a student's basic identity profile serves as the main way they process information psychologically. Many students who see themselves as active global citizens feel accepted, which connects to the idea of bicultural integration (Arnett, 2002). On the other hand,

the low and unchanging scores of the local community orientation group reveal a significant teaching challenge. Educational technology is never neutral. Students who focus on their local surroundings often find it hard to see any real benefits or personal control in global digital environments. This means that simply changing game rules would not solve the deep-seated biases that come from an ethnocentric viewpoint.

This division in psychology shows a bigger problem between the idea of having ready-made digital freedom and the real situations of significant power differences in Vietnamese EFL settings (de Bruijn, 2019; Li et al., 2025). In classrooms where teachers have strict control and where tests create a lot of pressure, students who are used to this environment often feel a lot of anxiety about embarrassing themselves (Foroutan Far & Taghizadeh, 2024). Traditional language settings make this exclusion even worse because of native-speakerism, leading to linguistic racism against learners who have local accents (Boonsuk et al., 2021; Hajar et al., 2025). Moreover, the low-risk gamified environment effectively reduces this social risk by concealing real-world weaknesses behind digital tasks. When local beliefs clash with global expectations in the game, learners who are not prepared experience confusion about their identity instead of personal growth (Arnett, 2002). The gradual development shown in the profiles demonstrates that just being exposed to different kinds of individuals isn't enough. To help students move away from not participating, the online setup needs to be clearly designed to match where they are in their journey of developing their identity (Norton, 2013; Weedon, 1997). From these important findings, there are several key points to consider for changing future research, technology development, and teaching methods.

This study shifts the focus from simple technology adoption to the complex interplay of learner psychology, identity, and pedagogy. Researchers must stop publishing short-term, superficial studies that look only at immediate motivation or basic vocabulary recall (Boudadi & Gutiérrez-Colón, 2020; Dehghanzadeh et al., 2021). Instead, future inquiries must investigate how specific, micro-level game mechanics interact directly with a student's cultural background and identity profile. Because a learner's existing mindset drastically alters how educational technology is perceived, the academic community must design longitudinal studies. This approach is necessary to track how these digital identity shifts endure as students transition into their professional post-graduation careers (Chirciu, 2020).

The clear gap between student enjoyment and actual intercultural skill development means developers must fundamentally redesign gamified platforms. The superficial implementation of slapping points and badges onto traditional, rigid exercises must be abandoned (Luu et al., 2025; Phi et al., 2025). Technology designers must build immersive, context-specific platforms that force students into deep, collaborative problem-solving and critical self-reflection (Moreno-Comellas et al., 2024). Digital quests should be structured to challenge algorithmic stereotypes and encourage a critical gaze (Hastomo et al., 2025). Furthermore, curricula must be flexible. Designers cannot assume all students enter the digital space with the same readiness (Vieluf & Göbel, 2019). Therefore, adaptive learning pathways must be created to gently guide locally oriented students from ethnocentric survival to active global citizenship (Bennett, 1986).

For practitioners, this study highlights the need to redefine the teacher's role in the digital age. Instructors cannot simply introduce a gamified platform and expect it to automatically build intercultural empathy (Salih & Omar, 2021). Because locally oriented students struggle to see the value of digital cultural spaces, teachers must actively step in to facilitate and bridge the gap. Formal, guided interventions are required to help students connect digital gameplay to real-world cultural complexities (Luu, 2026). Instructors must use joint missions within games to shift conversational power dynamics and empower quiet learners (Norton, 2013). Finally, institutional leaders must support this shift. There

is an urgent need to provide targeted funding, reduce rigid curriculum pressures, and train teachers to confidently lead critical, sensitive cultural discussions in the classroom (de Bruijn, 2019; Gómez-Parra, 2020).

## 5. Conclusion

This study shows that a learning environment that uses games to teach about different cultures helps support students' mental well-being by meeting their needs for independence and connection with others. There is a strong conflict between just looking at the basic structure and truly changing the way think deeply. Students enthusiastically engage with game features such as quests and teamwork, but the actual growth of intercultural skills varies greatly. This change shows that just having fun with digital things isn't enough to overcome the mental struggle needed to move from thinking only about one's own culture to understanding and appreciating other cultures. Importantly, a student's basic identity profile plays a key role in how they view technology, accounting for a large part of the differences in their evaluations. Active global citizens use the platform to learn about different viewpoints, while students focused on local issues find it hard to see how it relates to them right away.

Still, these results depend completely on personal, self-reported feelings, which reflect how students feel at the moment instead of showing actual changes in behavior during real-life cultural conflicts. The study also does not have a way to follow up over time to see if these changes in identity continue as the 186 participants move on to their careers after graduation. Another limitation pertains to the statistical analysis, specifically the execution of EFA on a short six-item scale. Readers should interpret the unidimensional construct with caution, as EFA with a limited number of items may result in inflated factor loadings and communalities. To close the gap between just showing interest and really being skilled, future teaching plans need to go past simple points or badges. They should include more complicated tasks that require deep thinking and problem-solving. Finally, language institutions should reject one-size-fits-all platforms. Instead, teachers need to create flexible learning paths that link big global ideas to local situations first. They should slowly bring in more complex global views as students become more aware of the world around them.

## References


[1] Alrefaee, Y., & Mudkanna, A. (2024). Comprehension of presupposition by Yemeni EFL students. *Studies in Pragmatics and Discourse Analysis, 5*(2), 68-83. https://doi.org/10.48185/spda.v5i2.1318

[2] Arnett, J. J. (2002). The psychology of globalization. *American Psychologist, 57*(10), 774–783. https://doi.org/10.1037/0003-066X.57.10.774

[3] Babbie, E. R. (2020). *The practice of social research* (15th ed.). Cengage AU.

[4] Bennett, M. J. (1986). A developmental approach to training for intercultural sensitivity. *International Journal of Intercultural Relations, 10*(2), 179–196. https://doi.org/10.1016/0147-1767(86)90005-2

[5] Boonsuk, Y., Ambele, E. A., & McKinley, J. (2021). Developing awareness of Global Englishes: Moving away from 'native standards' for Thai university ELT. *System, 99*, 1-18. https://doi.org/10.1016/j.system.2021.102511

[6] Boudadi, N. A., & Gutiérrez-Colón, M. (2020). Effect of gamification on students' motivation and learning achievement in second language acquisition within higher education: a literature review 2011-2019. *The EuroCALL Review, 28*(1), 57-69. https://doi.org/10.4995/eurocall.2020.12974

[7] Caetano, A. P., Pimenta Freire, I., & Biscaia Machado, E. (2020). Student voice and participation in intercultural education. *Journal of New Approaches in Educational Research, 9*(1), 57-73. https://doi.org/10.7821/naer.2020.1.458

[8] Chirciu, A. R. (2020). Global citizenship in the English language classroom: Student readiness for critical reform. In S. Troudi (Ed.), *Critical issues in teaching English and language education: International research perspectives* (pp. 123–151). Springer International Publishing. https://doi.org/10.1007/978-3-030-53297-0_6

[9] Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

[10] de Bruijn, A. (2019). From representation to participation: Rethinking the intercultural educational approach to folktales. *Children's Literature in Education*, *50*(3), 315-332. https://doi.org/10.1007/s10583-017-9330-x

[11] Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227-268. https://doi.org/10.1207/s15327965pli1104_01

[12] Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaee, E., & Noroozi, O. (2021). Using gamification to support learning English as a second language: a systematic review. *Computer Assisted Language Learning*, *34*(7), 934-957. https://doi.org/10.1080/09588221.2019.1648298

[13] Dörnyei, Z. (2020). *Innovations and Challenges in Language Learning Motivation* (1st ed.). Routledge. https://doi.org/10.4324/9780429485893

[14] Dörnyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies. Oxford University Press.

[15] Elias, A., & Mansouri, F. (2023). Towards a critical transformative approach to inclusive intercultural education. *Journal of multicultural discourses*, *18*(1), 4-21. https://doi.org/10.1080/17447143.2023.2211568

[16] Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.

[17] Foroutan Far, F., & Taghizadeh, M. (2024). Comparing the effects of digital and non-digital gamification on EFL learners' collocation knowledge, perceptions, and sense of flow. *Computer Assisted Language Learning*, *37*(7), 2083-2115. https://doi.org/10.1080/09588221.2022.2146724

[18] Fowler, F. J., Jr. (2013). *Survey research methods* (5th ed.). SAGE Publications.

[19] Gibson, D., Ostashewski, N., Flintoff, K., Grant, S., & Knight, E. (2015). Digital badges in education. *Education and Information Technologies*, *20*(2), 403-410. https://doi.org/10.1007/s10639-013-9291-7

[20] Gómez-Parra, M. E. (2020). Measuring intercultural learning through CLIL. *Journal of New Approaches in Educational Research*, *9*(1), 43-56. https://doi.org/10.7821/naer.2020.1.457

[21] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.

[22] Hajar, A., Mhamed, A. A. S., & Owusu, E. Y. (2025). African international students' challenges, investment and identity development at a highly selective EMI university in Kazakhstan. *Language and Education*, *39*(1), 54-71. https://doi.org/10.1080/09500782.2024.2343288

[23] Hastomo, T., Widiati, U., Ivone, F. M., Zen, E. L., Hasbi, M., & Khulel, B. (2025). AI-powered conversational agents and intercultural learning: Insights from Indonesian EFL students. *Intercultural Communication Education*, *8*(1), 103217-103217. https://doi.org/10.29140/ice.v8n1.103127

[24] Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology and culture*, *2*(1), 1-26. https://doi.org/10.9707/2307-0919.1014

[25] Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

[26] Li, C., Fryer, L. K., & Chu, S. K. (2025). Utilising gamified formative assessment to support English language learning in schools: a scoping review. *Innovation in Language Learning and Teaching*, *19*(2), 188-204. https://doi.org/10.1080/17501229.2024.2352789

[27] Li, N. (2025). Fostering creative thinking through gamified intercultural communication: innovative pedagogical strategies in higher education English programs. *Cogent Education*, *12*(1), 1-18. https://doi.org/10.1080/2331186x.2025.2489271

[28] Luu, D. P. (2026). Challenges and strategies of intercultural willingness to communicate among English majors at a Vietnamese public university. *TNU Journal of Science and Technology*, *231*(04), 422–429. https://doi.org/10.34238/tnu-jst.13650

[29] Luu, D. P., Nguyen, V. T. X., Do, L. C., & Nguyen, T. P. (2025). A Self-Determination Theory model of gamified EFL intrinsic motivation. *EuroGlobal Journal of Linguistics and Language Education*, *2*(5), 60-74. https://doi.org/10.69760/egjlle.2505005

[30] Moreno-Comellas, R., Murias-Closas, A., Evangelidou, S., Wylie, L., & Serre-Delcor, N. (2024). An innovative gamification tool to enhance intercultural competence and self-efficacy among healthcare professionals caring for vulnerable migrants and refugees. *International Journal for Equity in Health*, *23*(1), 1-11. https://doi.org/10.1186/s12939-024-02304-2

[31] Norton, B. (2000). *Identity and language learning: Gender, ethnicity and educational change*. Longman.
[32] Norton, B. (2013). *Identity and language learning: Extending the conversation* (2nd ed.). Multilingual Matters.
[33] Oxley, L., & Morris, P. (2013). Global citizenship: A typology for distinguishing its multiple conceptions. *British Journal of Educational Studies*, *61*(3), 301-325. https://doi.org/10.1080/00071005.2013.798393
[34] Patton, M. Q. (2014). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). SAGE Publications.
[35] Peskoller, J. (2025). The intercultural potential of language activities: Investigating the implementation of intercultural learning in three Austrian EFL textbooks. *Intercultural Communication Education*, *8*(1), 1-21. https://doi.org/10.29140/ice.v8n1.2313
[36] Phi, D. L., Nguyen, H. M. A., Nguyen, D. T. T., Le, N. D., Le, T. T. V., Do, T. X. T. (2025). Integrating gamification into the classroom: Theoretical mechanisms for enhancing student engagement. *International Journal of All Research Writings*, *7*(4), 22-30.
[37] Reysen, S., & Katzarska-Miller, I. (2013). A model of global citizenship: Antecedents and outcomes. *International Journal of Psychology*, *48*(5), 858-870. https://doi.org/10.1080/00207594.2012.701749
[38] Salih, A. A., & Omar, L. I. (2021). Globalized English and users' intercultural awareness: Implications for internationalization of higher education. *Citizenship, Social and Economics Education*, *20*(3), 181-196. https://doi.org/10.1177/20471734211037660
[39] Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, *12*(2), 257-285. https://doi.org/10.1016/0364-0213(88)90023-7
[40] Vieluf, S., & Göbel, K. (2019). Making intercultural learning in EFL lessons interesting–The role of teaching processes and individual learning prerequisites and their interactions. *Teaching and Teacher Education*, *79*, 1-16. https://doi.org/10.1016/j.tate.2018.11.019
[41] Vromans, P., Korzilius, H., Bücker, J., & de Jong, E. (2023). Intercultural learning in the classroom: Facilitators and challenges of the learning process. *International Journal of Intercultural Relations*, *97*, 1-13. https://doi.org/10.1016/j.ijintrel.2023.101907
[42] Weedon, C. (1997). Feminist practice & poststructuralist theory (2nd ed.). Blackwell.