An Investigation into the Application of Gamification and Socialization Design in International Chinese Language Educational Software

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Abstract: This paper focuses on the application of gamification and socialization design in international Chinese educational software. First of all, we adopt the Literature Review Method to sort out the principle of interest motivation, Behaviorism Learning Theory, Maslow's hierarchy of needs theory, self-efficacy theory and input-output hypothesis, and introduce the theoretical basis of gamification and socialization design and the necessity of integration of the two. Next, we analyze the typical cases in depth to reveal the problems that exist in the current products. The problems of the current products are revealed through in-depth analyses of typical cases. On this basis, the design concept of the deep integration of gamification and socialization is proposed. In the end, it is stressed that the deep integration of gamification and socialization is the key path to solve the current difficulties of international Chinese language education software, but it is also necessary to return to the essence of learning, and naturally integrate with the knowledge, in order to truly stimulate the motivation of learning.

Keywords: International Chinese Language Education; Gamification Design; Social Learning; User Experience; Motivation to Learn

1. Introduction

1.1 Research Background

1.1.1 The context of the Times

Since the 20th century, there has been a wave of 'Chinese fever' learning in the international community, and the number of international Chinese learners has increased dramatically, corresponding to the emergence of a large number of needs for international Chinese language education; at the same time, the rapid development of new information technology, such as 5G network, artificial intelligence, cloud computing, big data, virtual reality, etc., has vigorously promoted the theoretical research, practical application and innovative development of international Chinese language online education, and also brought new changes to the development mode of international Chinese language education.

1.1.2 Dilemmas of Reality

Firstly, as the number of Chinese language learners around the world continues to grow and the

currently available teacher resources are not able to better meet the demand, and as quality Chinese language education resources are unevenly distributed and learners in remote areas and developing countries have relatively less access to high quality Chinese language education, it is important to address the issue of balancing scaling and personalization from a technological point of view.

Secondly, there are individual international Chinese language teachers who have not received systematic and solid training, and there is still room for improvement in their teaching level. Moreover, the existing mode of international Chinese language education is too monotonous, with traditional classroom teaching being the mainstay, thus failing to mobilize learners' motivation and resulting in a wide range of learning effects.

Thirdly, because of the relationship between different regions and different cultural backgrounds, the Chinese language teaching classroom is often used to repeat the link, error correction and other mechanized teaching methods, with little dialogue, situational teaching, which naturally leads to teachers' inefficiency in teaching and students' lack of motivation to learn.

1.1.3 The Context of the Study

Gamification has great potential for application in non-game areas, especially education. The concept of 'gamification' was introduced at the Game Development Conference held in 2011, and has since attracted widespread attention and response from the game and other industries [1]. The concept refers to the application of game design elements, mechanisms and thinking to non-game contexts in order to shape user behavior and enhance the engagement experience. After more than ten years of development, 'gamification' has gradually expanded from a single game field to employee management, health care and other fields that focus on the subject's feelings, especially in the field of education, where it has been widely recognized. Research has shown that appropriate gamification design can activate learners' intrinsic motivation and thus enhance learning efficiency. At the same time, if 'gamification' focuses on the continuous motivation of learning, then 'socialization' focuses on the actual effect of learning. For international Chinese learners, the lack of Chinese communication environment is a common pain point, which can be effectively solved through 'socialization'. However, the current theory and practice of 'educational gamification and socialization' lacks in-depth integration with the learning objectives and content structure, and is more of an integration for the sake of fun, and the use of the two has not formed a system, and the use of the two in the field of international Chinese language education is relatively limited, which needs to be explored further.

1.2 The Significance of the Study

First, at the learner aspect. To help international Chinese learners maintain a high motivation to learn and continuously improve their Chinese language skills through online teaching; to assist international Chinese teachers in teaching Chinese, to fill the gap of lack of training, and to facilitate the improvement of teaching efficiency. Provide a direct reference for the functional design and operation strategy of 'Language Road Software' and similar products; Provide international Chinese teachers with new ideas for blended teaching.

Second, International Chinese language teachers' aspect. The functional design of the software and the concept of blended learning explored in this study are tools that can be used by teachers in practical teaching. On the one hand, the intelligent diagnosis and visual report of the software can help teachers quickly locate the common errors and individual weaknesses in the class, and make up for the lag in classroom feedback due to insufficient teacher training or teaching experience; on the

other hand, the design concept of gamification can effectively solve the problem of the differences in international environments. With scientific data and interesting modes, the quality of teaching and learning can be improved from multiple angles.

Third, the industrial development aspect. The concept of gamification and social integration design proposed in this paper for international Chinese educational software development, that is, the theory of 'gamification and socialization of education' and its in-depth integration with learning objectives and content structure, is of some significance to the industry's transformation from function stacking to in-depth design.

Fourth, the national strategic aspect. Echoing the content of 'promoting the digitization of education' put forward in the report of the 20th Party Congress, and supporting the action plan of 'Chinese Plus', this paper hopes to make a modest contribution to the exploration of the modernization of the international dissemination of national language and culture.

1.3 The Methodology of the Study

First, Literature Review Method. To provide theoretical support for the subsequent design, we systematically searched the main domestic and international literature on theories and research on the digitalization of Chinese language education from China Knowledge Network (CNKI) and other authoritative websites with the keywords of 'Chinese language learning', 'gamification', 'socialization', etc., so as to provide theoretical support for the subsequent design. We systematically and hierarchically searched the main domestic and international literature on the theory and research of international digitalization of Chinese language education to provide theoretical support for the subsequent design.

Second, Case Study Method. We select several international Chinese education software with large download volume through investigation, and analyses the design advantages and common shortcomings of the existing products from the perspectives of gamification elements, socialization function level, the integration degree of gamification and socialization, and the adaptability with Chinese learning characteristics, so as to summarize the experiences and provide positive and negative references for the design of gamification and socialization of the software.

Thirdly, Design Research Method. On the basis of literature review and case study analysis, the theoretical conception is naturally and appropriately transformed into gamification design and specific functions, so it can systematically and solidly present the way of integrating gamification in international Chinese education software and its practical effects. Compared with the previous two approaches, it is closer to reality and has practical significance.

2. Theoretical Foundations
2.1 Definition of Core Concepts
2.1.1 Gamification

Gamification refers to a design thinking that applies the fun elements, incentives and interactive forms of game design to non-entertainment scenarios [1].In the field of education, gamification refers to the integration of game elements and game mechanisms into formal school education or informal learning, so that learners can achieve the learning goals in an interesting learning process, and common gamification elements include points, badges, leaderboards, challenge tasks, progress bars, and unlocking of levels, etc. [2]. In essence, it is to make use of learners' curiosity, sense of achievement and sense of control to stimulate their intrinsic learning motivation and enhance

students' participation.

2.1.2 Social Learning (SL)

First proposed by American psychologist Albert Albert Bandura, social learning refers to the behavioral changes produced by learners through observation and conditioned reflexes, with emphasis on the role of the environment. With the rise of social media, the definition of this mode of learning has been gradually expanded to take advantage of the information dissemination function of the Internet to form online learning communities. Its specific functions are reflected in the display of personal dynamics of users, the function of praise and comment, language partner matching system, collaborative tasks, thematic community, ranking competition and so on. Through communication, sharing, mutual assistance and competition, it creates a positive learning environment and atmosphere [3].

2.2 Relevant Theoretical Studies

2.2.1 Learning Motivation Category Theory

First, the principle of interest and motivation. The principle of interest and motivation is an important theory formed by the convergence of pedagogy and psychology, and its ideological origin can be traced back to the Western naturalistic philosophy of education and the ancient Chinese Confucian tradition of 'joyful learning'. From Comenius, Rousseau to Dewey, educators of all generations have regarded interest as a fundamental element of children's natural nature[4].Therefore, the challenge tasks, badge collection, and storyline unlocking modules adopted in gamification design use simple situations, beautiful graphics, and interesting storylines to change the boredom of learners towards single learning modes such as trial and error, which naturally and appropriately stimulate the interest of learners and truly achieve the purpose of promoting learning. At the same time, the combination of the principle of interest motivation and socialization has an elegant logic: social interaction itself can be a source of interest, and when learners are recognized and connected in a community, their real interest in the learning activity itself will be enhanced.

Second, Behaviorism Learning Theory. Behaviorism Learning Theory originated at the beginning of the 20th century, and the representative figures are Edward Lee Thorndike and B.F.Skinner, whose most typical point of view is the chain of 'conditioned-response', i.e., to give different stimuli to the learners and observe their responses until the learners' responses reach the expected goal, and then to establish stable 'conditioned-response' by means of reinforcement, cueing and plasticity, and finally to naturally achieve the purpose of shaping good behaviors or correcting bad behaviors. 'Condition-response', and finally naturally achieve the purpose of shaping good behavior or correcting bad behavior [5]. The immediate feedback and positive reinforcement mechanism in gamification design is a reflection of the application of Behaviorism Learning Theory. Learners who complete vocabulary memorization, sentence practice, or dialogue tasks immediately receive clear positive feedback such as ratings, medals, and honors. This immediate recognition not only satisfies the learners' need for achievement, but also directly and powerfully reinforces their behavioral tendency to continue learning Chinese. What is even more rare is that the 'clues' proposed by behaviorism are naturally transformed into task-guiding hints in the gamification design, and the principle of 'plasticity' is also naturally reflected in the software's dynamic adjustment of the task difficulty according to the frequency of user errors. Therefore, the combination of gamification and Behaviorism Learning Theory can solve the problem of learning resistance caused by mechanical

training in traditional Chinese learning, and make the learning process more sustainable and enjoyable. It is worth noting that the Behaviorism Learning Theory is not simply a behaviorist theory, it forms a complete and hierarchical combination with the later constructivism and social learning, shaping good learning behaviors from different perspectives.

2.2.2 Learning Process Category Theory

Firstly, Maslow's hierarchy of needs theory clearly divides human needs into five levels, and the need for belonging and love is at the third level. Theoretically, it is natural to break down the 'need for belonging and love' into two complementary dimensions: the first is the need for 'love', i.e., the individual's basic desire for emotional giving and receiving, i.e., mutual understanding and trust, and the second is the need for 'sense of belonging', i.e., the individual's desire for mutual understanding and trust. 'The second is the need for a sense of belonging, i.e., the individual's desire to be recognized and accepted as a member of a group. This need is therefore often aptly described as a social need, i.e., the desire to establish good relationships with others and to support each other in times of difficulty. When the need for belonging and love is fully satisfied, individuals will feel cared for and accepted, and thus believe in their own value more firmly and positively [6]. For international Chinese learners, the need for belonging and love is particularly important. They come from all over the world, and most of them are in non-Chinese learning environments where Chinese is rarely used except during teaching time. This situation not only means that it is difficult for them to improve their Chinese proficiency and practice speaking in real contexts, but also means that as Chinese learners, they can only gain an identity in the classroom. Social design is an excellent vehicle to create a Chinese learning community that breaks through the limitations of time and space, so that learners can establish stable and warm social connections within the software, thus effectively enhancing their sense of belonging, and naturally and fully satisfying their needs for belonging and love. Specific ways include teaming up to complete dialogue tasks, correcting each other's Chinese writing assignments, real-time voice exchanges on cultural topics, and through the creation of identity labels such as 'Hanbok enthusiasts' and 'Calligraphy beginners'.

Third, Self-Efficacy Theory. Self-efficacy is a concept put forward by the psychologist Albert Bandura, in which an individual makes a judgement about whether he or she can successfully complete a certain task. Therefore, learners with high self-efficacy are more willing to accept challenges and are more resilient and persistent when encountering difficulties, while low self-efficacy tends to lead to avoidance behavior and premature abandonment. The part of the concept of gamification design that fits with Self-Efficacy Theory to improve learners' self-efficacy is the feedback mechanism in the game [7]. Gamification designs such as the 'Radar Chart of Competence' visualization of progress, the 'HSK Level 3 to Level 4' growth programmed, and the 'Grammar Detective' badge can transform abstract knowledge acquisition and competence enhancement into a game that can be used by learners. The game-like design of 'HSK3 to Level 4' and 'Grammar Detective' badges can transform the abstract knowledge acquisition and competence enhancement into concrete things that can be felt by the learners, and thus enhance their self-efficacy, thus boosting their confidence in the next step of learning as well as the whole Chinese language learning process.

Fourth, the theory of second language acquisition and the input and output hypotheses. The input hypothesis was put forward by Krashen, who clearly argued that comprehensible input (i+1) is a necessary condition for language acquisition, i.e., learners are exposed to materials slightly above

their own language level, understand the meanings in the context, and acquire the language forms. However, in the late 1980s, Swain supplemented the input hypothesis and put forward the output hypothesis, pointing out that input alone is not enough, and that there must be 'pushed output' to express meaning, organize discourse, and correct errors under the pressure of communication, so as to truly promote syntactic processing and language internalization. The only way to truly promote syntactic processing and language internalization is to express meaning, organize words and correct errors under communicative pressure [8].

In the design practice of international Chinese language education software, traditional software relies too much on mechanical learning such as multiple-choice questions and fill-in-the-blanks, which is ineffective in learning Chinese language materials that are higher than the learners' current level. Therefore, it is appropriate to transform Chinese materials slightly above the learner's current level into comprehensible inputs by means of gamification, reasonably lowering the threshold of comprehension, and strictly maintaining the learning difficulty of 'i+1' in the form of increasing difficulty of levels. As for the output, it is necessary to build a 'driven output' scenario by means of socialization. The social module connects learners with native Chinese speakers through posting, commenting and dialogue. In real-time dialogues, learners need to express their needs and communicate with each other, and they need to take the initiative to organize their words and correct grammatical errors to achieve communication. In addition, input and output can be naturally and smoothly linked by a chain of gamified tasks, i.e., after completing the input level of the corresponding topic, they immediately proceed to the output tasks such as 'peer assessment', thus making practical use of the language knowledge.

2.3 Theoretical Summary

In summary, interest motivation and behaviorism theory provide the basis for gamification design; Maslow's hierarchy of needs and self-efficacy theory reflect the value of socialization design; and the input-output hypothesis requires synergy between the two. This shows the importance of gamification and social design and their integration in international Chinese language education and its software

3. An analysis of the Gamification and Socialization Design of Existing International Chinese Language Educational Software

3.1 In-depth Analyses of Typical Cases

3.1.1 Representation of Strong Gamification: Mind Snacks

Mind Snacks is an international Chinese educational software designed with the idea of creating addictive mechanisms through the introduction of mobile games, and its game modes are divided into eight categories, namely Belly, Swell, Bloon, Bam Builde, Stacks, Totem, Galactic, and Bubbler. However, to sum up its gamification modes, these games are basically However, to sum up their gamification models, these games basically borrow elements from games (such as animated models, mission-driven, life values, etc.) and lack the actual integration with Chinese elements. Although it effectively solves the problem of learning motivation, there is the problem that learners are simply 'addicted to the game' and lose the ability to learn and enjoy the language [9]. Meanwhile, in terms of socialization, Mind Snacks has very limited social features. Although the software allows users to share their learning results through Facebook (you can turn off this function in the settings), it lacks a substantial social interaction scene. There is no partner matching, no collaborative tasks, no

community of learners, so users can't interact with other learners, let alone practice real language communication.

3.1.2 Representation of Strong Socialization: Hello Talk

Hello Talk is an international Chinese language education software for the global language learning community, which creates an immersive multilingual and cultural contact environment for users through accurate matching of language partners. There are two types of interactions, one is one-to-one synchronous interaction through chat rooms, and the other is one-to-many discussion between individuals and groups. In the one-to-one scenario, users can freely match with partners in the target language through the platform, and both parties act as learners and language and culture facilitators for each other. In the one-to-many interaction scenario, users can interact with each other through the discussion forum and personal dynamic circle of the platform around a specific topic [10].

However, since the platform does not have a mature and effective learning incentive mechanism, informal language learning in mobile scenarios is prone to fragmentation. Users have a weak sense of organizational rules, and it is difficult to maintain a long-term learning and mutual-help relationship between them. Therefore, in order to achieve learner-centered continuous learning goals in informal learning scenarios, it is necessary to strengthen them by means of gamification [10].

3.1.3 Brief Analysis of Other Software.

Gamification and socialization elements are still widely used in international Chinese education software. In addition to the above two examples, eLearn Chinese presents gamification elements such as PK duel and ranking on its homepage; Duolingo has socialisation design with task levels, experience accumulation and social ranking mechanism.

3.2 Summary and Implications

Despite the differences in the positioning of the software, the following common shortcomings prevail.

First, due to insufficient simulation of real language environments, the utterances taught are not supported by real-life dialogues and interactions, thus making it difficult for international Chinese learners to master complex Chinese characters and cope with diverse and complex social situations in a natural and appropriate way. Secondly, the standardized curriculum framework does not provide a personalized and dynamic pathway based on the users' language foundation, learning objectives and weaknesses. Third, insufficient cultural depth. Teaching is too focused on vocabulary and grammar, ignoring the cultural logic behind the language, so learners lack real supportive cultural background knowledge. Fourthly, it is difficult to maintain long-term motivation. At the initial stage, users are attracted by fun, but in the middle and late stages, the content is repeated more and more, and there is no effective incentive mechanism designed to match the in-depth learning stage. Fifthly, the training of output ability is weak. At present, a lot of passive input training such as multiple-choice questions and reading along is used, while the cultivation of active output ability such as independent creation and improvisation has been neglected for a long time.

The above problems can be further attributed to the three core contradictions of current products: the separation of gamification and socialization, the supercivilization of gamification elements, and the lack of learning goal guidance in social functions. Therefore, the core message for the design of

subsequent international Chinese language education software is that it is necessary to clarify the necessity of 'in-depth integration of gamification and socialization' and 'education-oriented design'.

4. Design Concepts for Gamification and Socialization

4.1 Design Objectives and Principles

Based on the above analysis of the current situation, theoretical support and analysis of existing international educational software, this paper proposes the design concept of gamification and socialization design in international Chinese educational software. The concept aims to provide users with a series of rich Chinese learning resources such as phonetics, grammar, vocabulary, etc., which combine gamification and socialization, and conforms to the design concepts of educational priority, cultural adaptability, progressive challenge, positive social motivation, etc., and emphasizes the mutual integration of gamification and socialization, which can help international Chinese language learners to maintain high motivation for learning.

4.2 Game-based Design

4.2.1 Overall Planning and Target Setting

At the overall planning level, we liken Chinese learning to a 'journey to explore Chinese culture', so the software is named 'Language Path', with HSK levels as the 'learning path' of the journey. The HSK level is used as the 'learning path' of the journey. Specifically, 'Language Path' includes simulation training in communication scenarios, which are subdivided into daily life and social interaction scenarios, as well as the introduction of high-quality content such as non-heritage arts and crafts and contemporary literature, all of which range from HSK Level 1 'Beginner's Station' to HSK Level 6 'Learning Path'. All the content is developed step by step from the 'Entry Station' at HSK Level 1 to the 'Hall of Culture' at HSK Level 6, with each level corresponding to a thematic area that has a Chinese flavor and is rich in cultural significance. Each level corresponds to a theme area with a Chinese flavor and cultural significance, and learners will unlock the special cultural content of the corresponding area, such as 'non-heritage skills', 'contemporary art and culture', 'city flavor', etc., upon completion of each language proficiency stage. This is a natural and appropriate use of a playful and social format that allows learners to stop studying for exams and really learn actively and enjoyably in order to 'arrive at the next cultural destination'.

4.2.2 Core Driving Mechanisms

Under the overall plan of gamification, the following three core driving mechanisms can be designed, based on the differences in the relevance of each theory to the psychology of the learner.

First, progress and achievement. As mentioned in the 'Self-Efficacy Theory' section above, progress and sense of achievement are mainly presented in the form of charts and graphs. Before the start of this day's learning task, the 'Personalized Competency Analyzer' will combine the daily punch card check-in with intuitive hexagonal competency charts and bar charts to summaries the user's high-frequency error points, and real-time view of the student's growth trajectory in different dimensions, so as to clearly grasp the learning and improve the user's motivation; after the end of this day's learning, the Decision Making Output Layer will further clarify and generate dynamic learning competency radar charts. At the end of the day's learning, the decision-making output layer further clarifies and generates a dynamic learning ability radar chart, visually presenting the learner's today's learning status, which includes today's new content and boards, the cumulative number of words

learnt, and the progress made compared with that of yesterday, etc. In addition, it supports the unlocking of the unlocking points as the unlocking point. In addition, the unlocking of the new cultural theme module as a milestone helps to cultivate a sense of achievement in learners.

Secondly, individual adjustment. This mechanism naturally and appropriately corresponds to the theory of input and output. Firstly, it grades the knowledge points listed in the HSK syllabus according to different levels of difficulty, and then designs corresponding cultural thematic areas for each level of difficulty, so as to achieve personalized matching on the basis of knowledge mapping, and thus naturally leads to 'personalized challenge tasks'. What's more, it combines learners' pre-test diagnostic results, stage-by-stage learning profiles, and classroom interaction data to dynamically adjust the learning path with intelligent algorithms.

We establish a correlation error map in the 'phonological-syntactic-semantic' layer to identify individual compound language errors, and then based on the information of pre-test diagnosis results, stage-by-stage learning profiles, and classroom interaction data, we use intelligent algorithms to dynamically adjust the learning path, generate personalized programmers, and then push out 'personalized challenge tasks' accordingly. 'Personalized Challenge Tasks'. Specifically, if the system diagnoses that a learner has high-frequency errors in some special sentence structures, the next day's challenge task will be 'overcome three errors in this sentence structures; if the diagnosis reveals that the learner has difficulties in recognizing the second and third tones, then the challenge task for the day will be If the diagnosis reveals that the learner has difficulty in recognizing the second and third tones, the challenge task of the day will be clearly defined as tone contrast training. At the same time, all the tasks strictly follow the principle of 'slightly higher than the current level', which implements the concept of comprehensible input (i+1) in language acquisition, so that learners will not be anxious because of the high difficulty level, and will never be bored by simple repetition.

Feedback and rewards. Instant feedback is the most prominent and valuable feature of gamification design, and it is also a concrete application of Behaviorism Learning Theory in digital scenarios. In the speech evaluation module, the concept first uses AI evaluation and peer rating to objectively rate learners' pronunciation and grammar, and then grants corresponding 'rewards' according to the level of pronunciation, such as virtual currency 'speech coins', 'tone master', 'grammar master', 'grammar master', 'grammar master' and 'grammar master'. The 'rewards' are awarded according to the level of pronunciation, such as virtual currency 'language coins', competence-oriented badges such as 'master of intonation' and 'grammar detective', and certificates of progress. The 'Unlocking New Cultural Themes' module in the Decision Output Layer, mentioned above, could also be used as part of the reward incentive.

4.3 Socialization Design
4.3.1 Light Socialization

Light socialization is mainly to establish sharing and communication communities with low participation thresholds, so that learners can initially integrate into the community in a low-pressure and low-involvement way. It is mainly divided into two communities: 'Sharing and Motivation' and 'Mistake Analysis'.

The Sharing and Motivation Community is a learning dynamic sharing function that allows learners to share their personal learning achievements (e.g., newly earned badges, competency radar chart growth) or read-aloud audios to the Community Dynamic Wall or the online community. Every time a learner shares, he/she not only demonstrates his/her self-promotion, but also serves as a role

model to inspire others. At the same time, we can also share Chinese learning tips and organise punch-card activities regularly in the community to encourage users to exchange learning experiences with each other.

The 'Error Analysis' community is essentially a mutual support platform for anonymous sharing of typical errors and mutual learning, which first establishes a 'phonological-grammatical-semantic' associated error map at the diagnostic and analysis level, identifying compound linguistic biases; and then further leverages the learning data tracking function of the software to record the daily learning length of users and accurately mark high-frequency knowledge points. In the analysis stage, the software further uses the learning data tracking function to record the daily learning hours of users and accurately mark the high-frequency error knowledge points. High-frequency errors correctly marked by the system can be posted anonymously in the 'Mistake Analysis' community for other learners to discuss and analyses the errors after users' consent. This transforms 'making mistakes' into a collective learning resource, which also reduces learners' sense of shame and is more conducive to the creation of a peer-to-peer supportive atmosphere.

4.3.2 Medium Socialization

The medium level of social interaction does not only stop at language and text communication, but also requires learners to work together to complete more in-depth tasks, and two modules, 'Topic Language Companion' and 'Theatre Group Challenge', are mainly designed.

The 'topic partner' function is based on the learners' common learning weaknesses for intelligent matching. When the system diagnoses that both learners have difficulties in a certain knowledge point, it will match them as 'topic partners' to complete a set of dialogue practice tasks together. This kind of matching based on common weaknesses is more conducive to targeted learning, and more in line with Maslow's hierarchy of needs theory.

The 'Drama Team Challenge' is designed in the form of cooperative tasks, inviting 3-5 learners to form a 'drama team' to dub a short Chinese video or create a short drama script and record the performance. This will record the learners' pronunciation and grammar usage, as well as organically combine language output, creative expression and teamwork, allowing learners to learn the language through practice.

4.3.3 Competitive Socialization

'Introducing competition in learning directly affects students' motivation'[11].The activity is organized in the form of punching cards, creating small dialogues/short essays around a certain grammar point or cultural theme, and then selecting the winners by community likes and votes, and in addition to receiving virtual prizes, their works will be displayed on the homepage for a whole week. Therefore, this paper naturally and appropriately introduces competition into creativity and expression, which also naturally promotes the exchange of learning experiences among users, and makes competition truly serve the improvement of language ability.

4.4 Gamification and Socialization Integration Points

Gamification and socialization are not two parallel lines, and 'Linguaphile' focuses on the deep integration of the two, making social behavior itself the object of gamification incentives, and making the game process the carrier of social interaction. The game process becomes the carrier of social interaction,

First, gamification of social behavior. The gamification of social behaviors is mainly reflected in the quantitative rewards for contributions to the community. Social behaviors such as helping language partners to correct errors, participating in topic discussions, sharing learning experiences, etc. can be rewarded with 'language coins'. For example, in the voice evaluation module, after instantly obtaining the system score and accurate Chinese pronunciation guidance, users can earn 'language coins' by helping their language partners to correct errors according to the error correction templates and scoring feedback provided by the system; in the 'learning team' set up in the medium social session, users can earn 'language coins' by completing the teamwork. The 'Learning Team' formed in the medium social session has additional achievements for completing team tasks.

Second, socialization of the game process. The socialization of the game process is reflected in the community sharing of personal achievements. Challenge tasks can invite friends to help, although friends can not directly complete the task on behalf of the task, but can provide tips and advice; important achievements can be forwarded and shared in the community, personal growth in the community public recognition. The system will also provide congratulation templates for other members to cheer and help, resulting in positive peer encouragement and role model effect.

5. Summary

This paper discusses the application of gamification and social design in international Chinese language education software, firstly by theoretical investigation, then by analysing the current situation, and then by proposing design concepts. This study is an exploration based on theory and design concepts, and its effectiveness needs to be verified by subsequent development and empirical evidence. In conclusion, this study concludes that the design of gamification and socialisation must return to the essence of learning, which may provide some reference for the innovation and upgrading of international Chinese digital education products.

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