

SELF-DETERMINATION THEORY AND GAMIFICATION IN FOREIGN LANGUAGE TEACHING

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Abstract. *The article analyzes gamification in foreign language teaching from the perspective of E. Deci and R. Ryan's self-determination theory. The influence of game mechanics on the development of learners' intrinsic motivation through the satisfaction of the basic psychological needs for autonomy, competence, and relatedness is examined. It is shown that the effectiveness of gamified learning depends on the balance between intrinsic and extrinsic motivation: the dominance of external incentives may lead to the overjustification effect and reduce learning activity. Based on the analysis of theoretical and applied studies, the paper formulates criteria for the methodologically justified use of game elements in foreign language teaching with regard to learners' motivational levels.*

Keywords: *self-determination theory, intrinsic motivation, overjustification effect, game mechanics, foreign language teaching, controlled regulation.*

Аннотация. *Статья посвящена анализу геймификации в обучении иностранному языку с позиций теории самодетерминации Э. Деси и Р. Райана. Рассматривается влияние игровых механик на формирование внутренней мотивации обучающихся через удовлетворение базовых психологических потребностей в автономии, компетентности и сопричастности. Показано, что эффективность геймифицированного обучения зависит от соотношения внутренней и внешней мотивации: доминирование внешних стимулов может вызывать эффект сверхоправдания и снижать учебную активность. На основе анализа теоретических и прикладных исследований формулируются критерии методически обоснованного использования игровых элементов в обучении иностранному языку с учётом уровня мотивации обучающихся.*

Ключевые слова: *теория самодетерминации, внутренняя мотивация, эффект сверхоправдания, игровые механики, обучение иностранному языку, контролируемая регуляция.*

Annotatsiya. *Maqola chet tilini o'qitishda geymifikatsiyani E. Desi va R. Rayanning o'z-o'zini belgilash nazariyasi nuqtai nazaridan tahlil qilishga bag'ishlangan. O'yin mexanizmlarining o'quvchilarda ichki motivatsiyani shakllantirishga ta'siri avtonomiya, kompetentlik va ijtimoiy bog'liqlik kabi asosiy psixologik ehtiyojlarni qondirish orqali ko'rib chiqiladi. Geymifikatsiyalashgan ta'lim samaradorligi ichki va tashqi motivatsiya nisbatiga bog'liqligi ko'rsatilib, tashqi rag'batlarning ustunligi ortiqcha asoslash effektini yuzaga keltirib, o'quv faolligini pasaytirishi mumkinligi ta'kidlanadi. Nazariy va amaliy tadqiqotlar tahlili asosida o'quvchilarning motivatsiya darajasini hisobga olgan holda chet tilini o'qitishda o'yin elementlaridan metodik jihatdan asosli foydalanish mezonlari ishlab chiqiladi.*

Kalit so'zlar: *o'z-o'zini belgilash nazariyasi, ichki motivatsiya, ortiqcha asoslash effekti, o'yin mexanikalari, chet tilini o'qitish, nazorat qilinadigan regulatsiya.*

Introduction. The effectiveness of gamification in foreign language teaching is largely determined by the mechanisms of motivational regulation of learning activity. Descriptive characteristics of game elements (points, badges, leaderboards, narratives, avatars) do not themselves explain why the same techniques yield positive results in one group and negative results in another. The theoretical apparatus capable of providing such an explanation is the self-determination theory of Edward Deci and Richard Ryan, developed in 1985 and elaborated in subsequent decades.[5]

The theory distinguishes three basic psychological needs the satisfaction of which forms intrinsic motivation. Autonomy is understood as the sense that the source of action lies within oneself. Competence is understood as the sense of one's own effectiveness in performing a task. Relatedness is understood as inclusion in meaningful relationships with others. The application of this theoretical framework to the analysis of gamification makes it possible to distinguish pedagogically productive from counterproductive configurations of game elements and to formulate well-grounded methodological recommendations.

The aim of the present study is to provide a systematic analysis of the correspondence between specific game mechanics and the three basic psychological needs in self-determination theory and to identify the conditions under which gamification supports or suppresses learners' intrinsic motivation in foreign language study.

Literature Review. The theoretical base of the study comprises Deci and Ryan's 2000 work setting out the extended version of self-determination theory, as well as the 2019 applied study by Noels, Lalonde, and Saumure on the adaptation of the theory to formal language education. The empirical support is provided by the 2017 experiment of Sailer, Hense, Mayr, and Mandl with a sample of 419 respondents, which measured the differentiated influence of specific game elements on the satisfaction of the three basic needs.

Additional material is provided by the meta-analytical works of Hamari, Koivisto, and Sarsa (2014), Sailer and Homner (2020), and Li, Ma, and Shi (2023), as well as the 2015 experiment of Bowey, Birk, and Mandryk with 155 participants on the influence of leaderboard position on players' psychological experience. The works of Russian researchers Yu. M. Khokhryakova and O. V. Marunovich (2021) on the problem of displacement of intrinsic motivation by external stimuli are also drawn upon, together with the critical work of K. A. Tatarinov (2019) on the overjustification effect in gamified environments.

Methodology. The research method combines theoretical analysis of the conceptual apparatus of self-determination theory with systematic comparison of experimental data on the differing influence of specific game elements on learners' psychological experience.

Results and Discussion. The experiment by Sailer and colleagues showed that different game elements have different effects on psychological needs.[6] Badges and progress graphs strengthen the sense of competence compared with the control group but do not influence autonomy. When narrative and avatars are added, the sense of relatedness increases. The possibility of choosing tasks strengthens autonomy.

The result obtained has substantial pedagogical significance. It shows that different game elements are not interchangeable and must be selected on the basis of the specific pedagogical task. For an audience with low self-esteem and fear of error, badges and a progress bar that strengthen competence are appropriate. For a closed group avoiding

interaction, team tasks and narratives that strengthen relatedness are essential. For a group expecting passive instructions, freedom of choice strengthening autonomy is necessary.

The experimental study by Bowey, Birk, and Mandryk on 155 respondents playing a clone of Bejeweled with an artificially manipulated rating revealed a significant difference in players' psychological experience depending on their position in the leaderboard.[2] Position in the lower part of the leaderboard reduced players' sense of competence, autonomy, immersion, and enjoyment compared with position in the upper part. This result confirms the dual character of competitive gamification elements: for the upper part of the rating, the leaderboard works as a motivator; for the lower part, it diminishes the basic psychological needs central to sustainable motivation.

The overjustification effect, described in the classical version of self-determination theory, was confirmed in the work of K. A. Tatarinov based on an analysis of the online game World of Warcraft.[7] Many participants develop a striving for bonuses that diminishes interest in activities not accompanied by reward. The transfer of such mechanisms into learning requires caution. At the same time, I. V. Gavrilova presents data of the opposite character.[1] Gamified courses exert a more pronounced positive influence precisely on underperforming students with low learning motivation. The contradictory data reflect the dependence of the effect on the characteristics of the audience's initial motivation. The 2023 meta-analysis by Li, Ma, and Shi, covering 41 studies with 49 independent samples and 5,071 participants, established significant moderators of the effect.[3] These proved to be the type of user, the educational discipline, the principles of gamification design, the duration of game experience, and the learning environment. The design of implementation matters more than the mere presence of game elements as such, which is consistent with the position of self-determination theory regarding the variability of motivational effects of identical external stimuli depending on their alignment with basic psychological needs. Applied to foreign language teaching, self-determination theory provides a clear explanatory apparatus for differentiating types of motivational regulation of learning activity [4]. A learner studying a foreign language under pressure from the social environment is in a state of external regulation. A learner studying a language for career prospects exhibits identified regulation: external in source but internalised in form. A learner experiencing interest in the language itself exhibits intrinsic motivation. Internally regulated motivation is more stable, requires fewer external reinforcements, and is preserved under changing circumstances.

In its unsuccessful realisations, gamification risks holding the learner at the level of external regulation. Points and badges work as short-term stimuli but do not raise the learner to a higher level of motivational maturity. Moreover, certain user retention mechanics borrowed from the design of gambling games operate on the psychological principle of loss aversion. Streaks in mass-market language applications compel the learner to return to study out of fear of losing accumulated progress. From the perspective

of self-determination theory, this is controlled regulation, since the learner submits to an external mechanism that induces anxiety at the threat of loss. The teacher who recommends such applications to learners faces the ethical task of explaining the internal workings of these mechanisms. The Russian-language methodological literature independently arrives at similar conclusions. Yu. M. Khokhryakova notes the risk of displacement of intrinsic motivation by external stimuli within point-rating systems.[8] O. V. Marunovich directly names the problem of dominance of external motivation over internal motivation in gamified courses.[9] The teacher is advised to maintain the balance between the point-based system and substantive pedagogical work in favour of the latter.

Conclusion. Self-determination theory explains both the successes and the failures of gamification in foreign language teaching. Gamification produces a stable pedagogical result when game elements satisfy the needs for autonomy, competence, and relatedness. It ceases to work or becomes harmful when external stimuli displace intrinsic motivation or when mechanics are built on control and anxiety. The teacher designing a gamified lesson should verify the techniques applied against three criteria. Does the element strengthen the learner's sense of autonomy or subordinate him to external rules? Does it strengthen competence through manageable challenges or demoralise him through public comparison? Does it create relatedness with other participants or isolate the learner in an individual race for points? Only when all three questions are answered in the affirmative does gamification become pedagogically justified.

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