# The impact of higher education students' personality traits on susceptibility to specific gamification elements

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**Abstract**

This research aims to determine if higher education students with certain personality traits are susceptible to specific gamification elements in education like points, levels, rewards, and others. A quantitative survey was carried out with a sample of 382 students from the Faculty of Organizational Sciences, University of Maribor, Slovenia. A 10-term measure of the Five-Factor Model (FFM) called the Ten Item Personality Measure (TIPI) was used. Descriptive statistics were used for analyses of collected data. Based on sample means, t-tests were performed to compare population means for statements of gamification elements between groups. This research's significant findings reveal that students with specific personality traits are more susceptible to particular elements of gamification. For example, students with high expressed extraversion are more susceptible to elements like immediate feedback, verbal praises from the professors, regular progress, teamwork, and constant challenges. The research contributes to a more in-depth understanding of gamification elements and is valuable for practical application.

Keywords: Big Five inventory; gamification; gamification elements; higher education; personality traits.

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## 1. Introduction

Over the last 40 years, computer games have significantly impacted how we spend our time (Connolly, Boyle, MacArthur, Hainey, and Boyle 2012). The gaming industry has become excellent at how to attract, engaging, and influencing human behavior. For this purpose, the gaming industry uses combinations of certain elements like points, badges, leader boards, challenges, etc. These elements are the basic elements of the concept known as gamification. Gamification aims to promote certain human behaviors and increase people's engagement in certain activities (Simões, Redondo, and Vilas 2013). Due to its positive effects on human behavior, gamification is used in various areas and industries like human resource management (Dale 2014), information literacy (Buckley and Doyle 2015), risk management (Garvey and Buckley 2010), marketing (Walz and Deterding 2015), computer science (Browne and Anand 2013), education (Buckley, Doyle, and Doyle 2017) and others. The purpose of gamification in education is to create a more enjoyable educational process and a fun environment for students (Seixas, Gomes, and Filho 2016) and organizational benefits (Kuo and Chuang 2016).

With the growing popularity of computer games and their users, there is a great potential for using gamification in education (Simões, Redondo, and Vilas 2013). There are many examples of gamification in education with positive results (Snyder and Hartig 2013; de-Marcos et al. 2014) but also mixed ones (Gasland, 2011; Domínguez et al. 2013). According to Hamari, Koivisto, and Sarsa (2014), many studies on gamification have methodological problems such as short treatments, a lack of validated measures, comparison groups, singular assessments, and others. We cannot understand gamification in education as a one-size-fits-all solution. We have to understand that students differ in terms of gender, age, culture, ethnicity, learning styles, performance, personality traits, and other factors. According to Poropat (2009), personality traits have a significant impact on academic performance and achievement. We must also understand that persons with different personality traits are differently susceptible to various elements of gamification.

### 1.1. Literature review

#### 1.1.1. Personality traits

Differences in how people behave in any given situation and how they perceive and approach demanding tasks, conflicts, and opportunities attribute to variations in specific personality traits (Gustavsson, Jönsson, Linder, and Weinryb 2003). There is broad agreement that behavioral characteristics are relatively stable. Mount and colleagues stress that personality traits refer to stable characteristics over time, provide the reasons for the person's behavior, and are psychological by nature. They reflect who we are and, as a whole, determine our affective, behavioral, and cognitive styles (Mount, Barrick, Scullen, and Rounds 2005).

The most commonly used model to provide a coherent taxonomy of personality traits is the Big Five framework, which has become the most widely used and extensively researched personality model (Gosling, Rentfrow, and Swann 2003). The Big Five framework organizes the personality traits of individuals using five dimensions (OCEAN): Openness to Experience (O), Conscientiousness (C), Extraversion (E), Agreeableness (A), and Neuroticism (N) (Goldberg 1990; Stepisnik Perdih 2011; Musek 2011). Those dimensions are bipolar. Each bipolar size (e.g., Extraversion vs. Introversion) summarizes several more specific facets (e.g., Sociability), which, in turn, subsume a large number of even more specific traits (e.g., talkative, outgoing).

Extroverted individuals are outgoing and energetic, while individuals with low extraversion tend to be more solitary and reserved. Agreeableness is a trait that reflects an individual's concern for society at large. High agreeableness is associated with good-naturedness, cooperativeness, and trust in others, while low

agreeableness is associated with self-interest and distrust. Conscientiousness is characterized by orderliness, self-discipline, and the aim for achievement in terms of externally set measures and metrics. Neuroticism is the tendency to experience and be affected by emotions such as anger or anxiety. The opposite is Emotional Stability, which is associated with more phlegmatic and less emotionally reactive individuals. Finally, Openness to Experience is associated with curiosity, flexibility, and originality. It is sometimes referred to in the literature as intellect because of its emphasis on intelligence and reflection (Musek 2011; Buckley and Doyle 2017).

### 1.2. Related studies

Gamification can be defined as the use of game elements in a non-game context (Werbach and Hunter 2012). The most common elements of gamification are achievements, avatars, badges, challenges, character sheets, competition, feedback, goals, group tasks, leaderboards, levels, progress, quests, rankings, points, rewards, scoring systems, story, tasks, time pressure, trophies, virtual trade, virtual worlds and others (Domínguez et al. 2013, Hamari, Koivisto and Sarsa 2014; Marczewski 2019). Gamification has excellent potential in education (Buckley and Doyle 2017) and is being used as a way to increase student engagement, and motivation, promote learning and development of life skills (Filsecker and Hickey 2014; Hanus and Fox 2015; Buckley and Doyle 2017).

Many authors, writers, and scholars have been seeing gamification as a process to transform education (McGonigal 2011; Muntean 2011). This potential has resulted in literature increase investigating gamification in education (Lee and Hammer 2011; Domínguez, Saenz-de-Navarrete, de-Marcos, Fernandez-Sanz, Pagés, and Martínez-Herráiz 2013). According to (Morena, Auganta, Labrina, de Giorgisa, de la Fuente-Mellab, Fritzc, Saavedrac, Moncktona, and Castelli 2019) knowing the personality traits of students can improve the quality of education. Different authors (Jia, Xu, Karanam, and Voida 2016; Buckley and Doyle 2017) suggest that it is necessary to have a deeper understanding of the specific elements of gamification in education. It is essential to know how they are related to the different personality traits of students.

Researchers have found that individuals react differently to gamification, which could be related to personality traits (Hamari, Koivisto, and Sarsa 2014). Nov and Arazy (2013) found that in social participation systems, extroverted people contribute more. Hilling (2012) reports that introverted people enjoy solitary tasks and don't like being in a crowd, except when they know other participants. A study on gamification in education says that there are differences between extroverted and introverted individuals regarding the perception of different motivational elements (Codish and Ravid 2014). Buckley and Doyle (2017) found a positive relationship between extroverted people and gamification perception. Jia, Xu, Karanam, and Voida (2016) report that extroverted people prefer gamification elements like points, levels, and leaderboards.

### 1.3. Purpose of study

This research aims to provide a better understanding and in-depth knowledge of the personality traits related to susceptibility to gamification. It tries to answer whether students with certain personality traits are more susceptible to specific gamification elements in higher education.

## 2. Materials and Methods

### 2.1. Data collection instrument

One of the most common methods of measuring an individual's personality traits is the Big Five Inventory (BFI), a self-report inventory consisting of 44 items (John and Srivastava 1999). In our study, a

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10-term measure of the Five-Factor Model (FFM) called the Ten Item Personality Measure (TIPI) is used (Gosling, Rentfrow, and Swann 2003), which is specifically designed as a tool to be used in circumstances where researchers have limited time with participants. The questionnaire contained 29 closed questions and statements referring to (i) general data, (ii) ten statements about personal traits, and (iii) eleven statements about elements of gamification in education (Appendix). For the last two statements in the group (i) and all statements in (ii) and (iii), a 5-point Likert scale from strongly disagree (1) to strongly agree (5), with larger values indicating stronger orientation was used.

### 2.2. Participants

Students of the University of Maribor, Faculty of Organizational Sciences in Slovenia, participated in the study. The study was conducted in the year 2020. Students were informed of the nature of the research and invited to participate freely. Anonymity was assured. Participants' demographic and general data are presented in Table 1.

**Table 1**
*Participants' demographic and general data*

| Total Participants (n=382) | | |
|---|---|---|
| Gender | 215 | Female (56.28 %) |
| | 167 | Male (43.72 %) |
| Average age | 23.13 | |
| Average grade | 8.29 | |
| Study level | 275 | Bachelor (level 1) (71.99 %) |
| | 97 | Master's (level 2) (25.39 %) |
| | 10 | Doctoral (level 3) (2.62 %) |
| Study programs | 113 | Technical studies (29.58 %) |
| | 246 | Social sciences (64.40 %) |
| | 23 | Natural sciences (6.02 %) |
| Study mode | 231 | Traditional learning (60.47 %) |
| | 5 | E-learning (1.31 %) |
| | 146 | Blended learning (38.22 %) |
| I am motivated to study | 3.71 | |
| I play video games (on PC, smartphone, tablet, console, etc.) | 2.64 | |

### 2.3. Analysis

For statistical analysis, the items (ii) and (iii) were developed as a composite index measuring overall student perception by averaging the responses to items in each group (study mode, level, and year).

### 3. Results

Mean values and standard deviations of the responses in groups, (ii) personality traits, and (iii) elements of gamification in education were calculated. We divided the respondents into two groups according to the high (H), and low (L) expressed personality traits for each of the top five personality traits. The survey contained control statements to verify the conflicting answers of the respondents. Respondents who

provided intermediate answers (3) were not included in the analysis. The average values of the answers for individual statements according to the high (H) or low (L) »OCEAN« score and the significances for the t-Test of equality of means are shown in Tables 2, 3, 4, 5, and 6. The average values of the answers for these statements are significantly different (higher for H than L except for the statements marked with *, where the average value is higher for L than H). In the analysis, we tried to answer the question of whether there were significant statistical differences regarding the influence of gamification elements on students with high (H) or low (L) personality traits (OCEAN).

High (H) expressed personality trait Openness to Experience (O) was found in 310 respondents, and low (L) expressed personality trait openness to experience was found in 43 respondents. Statistically significant differences between low and high expressed personality trait openness to experience were confirmed for statements (S23) It means a lot to me to progress regularly, (S24) It means a lot to me to be involved in teamwork and to work with others and (S28) I like constant challenges. Students with a high expressed trait, on average, prefer to (S23) It means a lot to me to have immediate feedback on progress or success than those with the low expressed trait (t=-1.867, p=.034). The other two statements, (S24) It means a lot to me to be involved in teamwork and to work with others and (S28) I like constant challenges, were also evaluated statistically significantly higher by students with high expressed personality trait openness (Table 2).

**Table 2**

*Descriptive statistics for individual statements and a statistically significant t-Test results according to the high (H) or low (L) »O« score*

|  | Openness to experience (O) | O | Mean | Std. Dev. | t | p (1-sided) |
|---|---|---|---|---|---|---|
| S23 | It means a lot to me to progress regularly. | L | 3.77 | 1.043 | -1.867 | .034 |
|  |  | H | 4.07 | 0.592 |  |  |
| S24 | It means a lot to me to be involved in teamwork and to work with others. | L | 2.93 | 1.100 | -4.434 | .000 |
|  |  | H | 3.64 | 0.965 |  |  |
| S28 | I like constant challenges. | L | 3.28 | 1.076 | -3.315 | .001 |
|  |  | H | 3.84 | 0.766 |  |  |

High (H) expressed personality trait Conscientiousness (C) was found in 325 respondents, and low (L) expressed personality trait conscientiousness was found in 34 respondents. Statistically significant differences between low and high expressed personality trait conscientiousness were confirmed for statements (S19) It means a lot to me to have immediate feedback on progress or success, (S23) It means a lot to me to progress regularly, and (S25) I like to monitor my progress. Students with a high expressed personality trait, on average, prefer to (S19) It means a lot to me to have immediate feedback on progress or success than those with the low expressed trait (t=-2.154, p=.019). The other two statements, (S23) and (S25), were also evaluated statistically significantly higher by students with high expressed personality trait conscientiousness. Detailed results are presented in Table 3.

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**Table 3**
*Descriptive statistics for individual statements and a statistically significant t-Test results according to the high (H) or low (L) »C« score*

|  | Conscientiousness (C) | C | Mean | Std. Dev. | t | P (1-sided) |
|---|---|---|---|---|---|---|
| S19 | It means a lot to me to have immediate feedback on progress or success. | L | 3.71 | 1.060 | -2.154 | .019 |
|  |  | H | 4.11 | 0.760 |  |  |
| S23 | It means a lot to me to progress regularly. | L | 3.76 | 0.855 | -1.908 | .032 |
|  |  | H | 4.05 | 0.634 |  |  |
| S25 | I like to monitor my progress. | L | 3.41 | 0.892 | -3.770 | .000 |
|  |  | H | 4.01 | 0.694 |  |  |

High (H) expressed personality trait Extraversion (E) was found in 241 respondents, and low (L) expressed personality trait extraversion was found in 114 respondents. Statistically significant differences between low and high expressed personality trait extraversion were confirmed for statements (S19) It means a lot to me to have immediate feedback on progress or success, (S22) It means a lot to me to get verbal praise from the professor, (S23) It means a lot to me to progress regularly, (S24) It means a lot to me to be involved in teamwork and to work with others, and (S28) I like constant challenges. Students with a high expressed personal trait extraversion, on average, prefer to (S19) It means a lot to me to have immediate feedback on progress or success than those with a low expressed trait (t=-2.000, p=.023). Students with a high expressed personality trait, on average, prefer to (22) It means a lot to me to get verbal praise from the professor, then those with a low expressed trait (t=-2.513, p=.006). The statements (S23) It means a lot to me to progress regularly, (S24) It means a lot to me to be involved in teamwork and to work with others, and (S28) I like constant challenges, were also evaluated statistically significantly higher by students with high expressed personality trait extraversion. Detailed results are presented in Table 4.

**Table 4**
*Descriptive statistics for individual statements and a statistically significant t-Test results according to the high (H) or low (L) »E« score*

|  | Extraversion (E) | E | Mean | Std. Dev. | t | P (1-sided) |
|---|---|---|---|---|---|---|
| S19 | It means a lot to me to have immediate feedback on progress or success. | L | 3.96 | 0.824 | -2.000 | .023 |
|  |  | H | 4.14 | 0.781 |  |  |
| S22 | It means a lot to me to get verbal praise from the professor. | L | 3.59 | 0.994 | -2.513 | .006 |
|  |  | H | 3.85 | 0.796 |  |  |
| S23 | It means a lot to me to progress regularly. | L | 3.82 | 0.736 | -4.353 | .000 |
|  |  | H | 4.13 | 0.591 |  |  |
| S24 | It means a lot to me to be involved in teamwork and to work with others. | L | 3.02 | 1.105 | -6.505 | .000 |
|  |  | H | 3.78 | 0.855 |  |  |
| S28 | I like constant challenges. | L | 3.54 | 0.853 | -3.273 | .001 |
|  |  | H | 3.85 | 0.794 |  |  |

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High (H) expressed personality trait Agreeableness (A) was found in 303 respondents, and low (L) expressed personality trait agreeableness was found in 68 respondents. Statistically significant differences between low and high expressed personality trait agreeableness were confirmed for statements (S21) It means a lot to me to have immediate feedback on progress or success, (S24) It means a lot to me to be involved in teamwork and to work with others, and (S29) I would be more motivated by material rewards (e.g., USB stick, money, etc.) than the intangible rewards (e.g., praise, teamwork, etc.) for success or progress. Students with a low expressed personality trait, on average, prefer to (S21) I like to compete and compare myself with others than those with a high expressed trait (t=2.720, p=.003). Students with a low expressed personality trait, on average, prefer to (S29) I would be more motivated by material rewards (e.g., USB stick, money, etc.) than the intangible rewards (e.g., praise, teamwork, etc.) for success, progress, than those with a high expressed trait (t=1.669, p=.049). The statement (S24) It means a lot to me to be involved in teamwork and to work with others, was evaluated statistically significantly higher by students with high expressed personality trait agreeableness. Detailed results are presented in Table 5.

**Table 5**

*Descriptive statistics for individual statements and a statistically significant t-Test results according to the high (H) or low (L) »A« score*

| | Agreeableness (A) | A | Mean | Std. Dev. | t | P (1-sided) |
|---|---|---|---|---|---|---|
| *S21 | I like to compete and compare myself with others. | L | 3.22 | 1.170 | 2.720 | .003 |
| | | H | 2.84 | 1.018 | | |
| S24 | It means a lot to me to be involved in teamwork and to work with others. | L | 3.31 | 1.162 | -1.751 | .042 |
| | | H | 3.57 | 0.970 | | |
| *S29 | I would be more motivated by material rewards (e.g., USB stick, money, etc.) than the intangible rewards (e.g., praise, teamwork, etc.) for success, and progress. | L | 3.24 | 1.259 | 1.669 | .049 |
| | | H | 2.96 | 1.073 | | |

High (H) expressed personality trait Neuroticism (N) was found in 242 respondents, and low (L) expressed personality trait neuroticism was found in 105 respondents. Statistically significant differences between low and high expressed personality trait neuroticism were confirmed for statements (S21) I like to compete and compare myself with others, (S23) It means a lot to me to progress regularly, and (S25) I like to monitor my individual progress. Students with a low expressed personality trait, on average, prefer to (S21) I like to compete and compare myself with others, then those with a high expressed trait (t=2.144, p=.016). The other two statements, (S23) and (S25), were evaluated statistically significantly higher by students with high expressed personality trait neuroticism. Detailed results are presented in Table 6.

**Table 6**

*Descriptive statistics for individual statements and a statistically significant t-Test results according to the high (H) or low (L) »N« score*

| | Neuroticism (N) | N | Mean | Std. Dev. | t | P (1-sided) |
|---|---|---|---|---|---|---|
| *S21 | I like to compete and compare myself with others. | L | 3.10 | 1.064 | 2.144 | .016 |
| | | H | 2.84 | 1.060 | | |
| S23 | It means a lot to me to progress regularly. | L | 3.94 | 0.691 | -1.865 | .032 |
| | | H | 4.08 | 0.619 | | |

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| | | | | | | |
|------|-----------------------------------|---|------|-------|--------|------|
| S25  | I like to monitor my individual progress. | L | 3.84 | 0.774 | -2.193 | .015 |
| | | H | 4.02 | 0.684 | | |

## 4. Discussion

Our research examines the susceptibility of students with specific personality traits to particular gamification elements. The study increases the understanding of the importance of using particular gamification elements for students with specific personality traits. We believe that the most significant potential for implementing our results is within the learning management systems (LMS). According to Ryann (2009), with learning management systems, we can monitor, report, document, provide educational content, and more. With modern LMS systems, we can gather a lot of information about student activities. If we know what kind of personality traits students have, we can design more personalized feedback about students' activities and achievements. With programming and customizations of LMS, we can implement many of the elements used in the study. In our opinion, the most appropriate elements are (S19) Immediate feedback on progress or success, (S20) Getting as many points as possible or a high score, (S21) Competing and comparing with others, (S23) Constant progression, (S25) Monitoring my progress, (S27) Clear instructions and rules, and (S28) Constant challenges. There are technical possibilities for implementing elements of gamification into LMS.

Professors and administrative personnel can also implement all the elements used in the study into the educational process. For example, the professor's verbal praise can cause a lot of positive reactions in students. So can teamwork and working with others, getting a public award in written acknowledgment, plaque, certificate, etc., and motivation through material rewards (e.g., USB stick). The use of specific gamification elements can affect student work engagement and their user experience with educational systems (for example, with organizational LMS). If we want to optimize each student's educational process, we must personalize it as much as possible. Knowledge and technical options already exist. In the future, personalization will be even more possible due to the development of LMS and artificial intelligence. We can expect that many educational organizations will adapt and follow the trend of personalization of education. Our results can be partially or fully integrated into existing education models and help educational organizations adapt their processes to modern students' needs. The following paragraphs describe findings that relate to different student personality traits.

Personality trait *Openness to Experience*: Studies of individuals with highly expressed personality traits of openness to experience have reported that they are active, with creativity, originality, and exploration (Soldz and Vaillant 1999). Our results show that such individuals prefer gamification elements like (S23) Constant progression, (S24) Teamwork and working with others, and (S28) Constant challenges. Constant progress gives students a sense of accomplishment and allows students to get new opportunities in education. With this kind of work, students get a sense of exploring and discovering new knowledge, leading to new challenges. This type of work is appropriate for individuals with high personality traits and openness to experience. These individuals like teamwork and working with other students. But when working in a group, they also like to be a leader. When students complete an activity or task, they need feedback on their progress and status. If an activity or task is well done, we can immediately occupy the student with further action. This provides a feeling of constant challenges.

Personality trait *Conscientiousness*: Different studies of individuals with a highly expressed personality trait of conscientiousness showed that they are goal-oriented (John and Srivastava 1999) and they prefer

security, discipline, and order (Roccas, Sagiv, Schwartz, and Knafo 2002). Our results show that such individuals prefer elements of gamification like (S19) Immediate feedback on progress or success, (S23) Constant progression, and (S25) they like to monitor their progress. This can be implemented into an LMS. With LMS students can be automatically assigned new tasks without the intervention of a professor. This enables students to have constant progression at their own pace. We need to understand that LMS is an essential part of e-learning. The purpose of e-learning is to enable learning when students want to and wherever they want to. When a student completes a task, the LMS can quickly evaluate the task and provide immediate feedback. The same goes for monitoring individual progress. This can be shown in the form of graphic elements within LMS (e.g., progress bar).

Personality trait *Extraversion*: Studies on individuals with a highly expressed personality trait of extraversion have reported that they are active, like achievements, external impulses, and love people (Roccas, Sagiv, Schwartz, and Knafo 2002) and they are confident (Schaefer, Williams, Goodie, and Campbell 2004). Our results show that these individuals prefer elements of gamification like (S19) Immediate feedback on progress or success, (S22) Verbal praise from the professor, (S23) Constant progression, (S24) Teamwork, and (S28) they like Constant challenges. We can automate immediate feedback on progress or success, constant progression, and constant challenges within an LMS. Implementation of elements like verbal praise and teamwork involves a professor.

Personality trait *Agreeableness*: Students with a high personality trait agreeableness like teamwork. Therefore, it is essential to enable them to work with others, in groups. They love positive relationships and seek pleasure and satisfaction in relationships (Ozer and Benet-Martinez 2006). According to (Lebowitz 2016), they have a highly developed sense of respect for other people and are sympathetic. Our study showed that for students with a low expressed personality trait of agreeableness, the essential elements are (S21) Competing and comparing with others and (S29) Motivation by material rewards. Such individuals are more competitive, distrustful, and are not interested in other people's problems.

Personality trait *Neuroticism:* Our results show that such individuals prefer gamification elements like (S23) Constant progression and (S25) Monitoring their progress. Different studies of individuals with a highly expressed personality trait of neuroticism show that they often feel without control over their lives (Judge, Erez, Bono, and, Thoresen 2002) are usually sad, insecure, and have anxiety feelings (Lebowitz 2016). Constant progression and the ability to monitor individual progress give these individuals a sense of control over the educational activity. Students with low personality trait neuroticism like to (S21) Compete and compare themselves with others.

## 5. Conclusion

The study has its limitations and potential for improvements. It was conducted only at one faculty in Slovenia (Europe). It would be useful to expand it to different universities and also to elementary and high schools. So we could see whether there are differences in susceptibility for gamification between different levels of education. It would also be interesting to expand it to other countries and continents. This could illuminate the gamification concerning different nationalities, cultures, ethical groups, etc.

In this study, only specific gamification elements were included. We did not include elements like avatars, role-playing, negative points, etc. In future research, we plan to include also other, less common gamification elements.

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# Appendix

Statements about personality traits and gamification elements in education.

**I see myself as someone who**
(S9) is open outwards (extroverted), enthusiastic.
(S10) is quarrelsome, critical.
(S11) is trustworthy, self-disciplined.
(S12) is anxious, gets nervous quickly.
(S13) is curious, opened for new experiences and novelties.
(S14) is reserved, quiet (introverted).
(S15) is sympathetic, kind.
(S16) is unorganized, indifferent.
(S17) is calm, emotionally stable.
(S18) is traditional, uncreative.

**Gamification elements in education**
(S19) It means a lot to me to have immediate feedback on progress or success.
(S20) It means a lot to me to get as many points as possible or a high score.
(S21) I like to compete and compare myself with others.
(S22) It means a lot to me to get verbal praise from the professor.
(S23) It means a lot to me to progress regularly.
(S24) It means a lot to me to be involved in teamwork and to work with others.
(S25) I like to monitor my progress.
(S26) It means a lot to me to get a public award in written acknowledgment, plaque, certificate, etc.
(S27) I like clear instructions and rules.
(S28) I like constant challenges.
(S29) I would be more motivated by material rewards (e.g., USB stick, money, etc.) than the intangible rewards (e.g., praise, teamwork, etc.) for success, progress.