Gamification in the Latin Classroom

by Moss Pike

Level I. Gamification and Game-Based Learning (GBL)

'Gamification' and games have become a popular trend in education, and have thus been given much attention in sessions at education conferences all over the world. But their rather rapid spread has also led to some misunderstandings about what they are and how they can be used in a classroom, largely owing to the wide variety of *gamified* courses and GBL-based classroom activities that have been popularised by educational media. Rather than serve as a panacea to fix classroom problems, however, gamification and GBL should be considered as just one of many tools, albeit quite powerful ones grounded in cognitive psychology, which can be used to create engaging and dynamic learning environments. After a short introduction to the ideas behind *gamification* and GBL and the brain science that makes them so powerful, an example of a gamified middle-school level Latin course will be described in detail.

Gamification can be defined as "the use of game design elements in non-game contexts" (see Knewton Infographic on gamification in education, http://www. knewton.com/gamification-education/). *Game-based learning,* on the other hand, is using games within actual learning contexts. Koster, one of the most influential thinkers on game design for fun and engagement within an educational setting, has argued that '[g]ames are now a major cultural force.

The time is ripe for us to dig deeper into the many questions that games raise' (Koster, 2004, p.10). He continues:

> 'Games are something special and unique. They are concentrated chunks ready for our brains to chew on. Since they are abstracted and iconic, they are readily absorbed. Since they are formal systems, they exclude distracting extra details.' (Koster, 2004, p. 36).

Games are all about fun and engagement, and according to Koster (2004), '[f]un from games arises out of mastery; it arises out of comprehension. It is the act of solving puzzles that makes games fun. In other words, with games, learning is the drug' (Koster, 2004, p. 40). McGonigal (2011), who has pioneered games as a mechanism not only for engagement and education but even for social change, builds on Koster (2004) by grounding the benefits of games in the emergent field of *positive psychology*. She believes that games are fulfilling genuine human needs and therefore that games need to be used more widely. According to the standard definition of a game, there are four necessary components that all lead to a specific benefit:

- Goal → Sense of purpose

- Rules → Creativity and strategic thinking

- Feedback system → Motivation

- Voluntary participation → Common ground. (McGonigal 2011, p. 21)

In other words, a game can simply be thought of as anything with rules and a shared game space, along with some sort of feedback and an open invitation to play. A game can be as simple as the familiar rock-paper-scissors game, complex like *Minecraft* or *World of Warcraft*, or abstract like the process of school itself. Game play (or simply 'play') requires players to work toward the goal willingly guided by the rules of the game space and the feedback provided within it. Consequently, when the components of games are viewed through the lens of the recent brain-based research that positive psychology is producing and the shifting demands of the 21st century classroom, gamification and GBL could play a central role in the learning process, especially in language study.

Level II. Gamification and Cognitive Science

Cognitive science is beginning to understand how the brain learns, and thanks to the most current research, it is clear that the so-called *soft* or *non-cognitive skills* are so essential not only for future success but even for our happiness and overall well-being. Of critical importance for education, the non-cognitives are now understood to be actual skills that can be

developed and encouraged in students, rather than innate, fixed qualities as once was commonly believed to be true. As will be argued below in more detail, engaging games and game environments can help to create learning opportunities that emphasise these particular qualities and skills:

• Intrinsic motivation and mastery through personalisation

• Resilience and risk-taking

• Creativity and idea generation

• Collaboration and social awareness

In his persuasive study of the importance of engaging environments that personalise the learning experience (as compared to those that give way to compliant behaviours), Schlechty (2011) comments in regard to personalised learning that:

'It is this fact [i.e., personalised learning], more than any other, that leads me to conclude that the goal of developing in most students the skills of habits of mind that result in creativity, the ability to solve complex problems and understand complex arguments, and the ability to approach tasks in a disciplined way cannot be achieved until and unless the work schools and teachers provide students is engaging to more students than is now the case.' (Schlechty, 2011, p. 20)

In several different ways, games have the potential to amplify the levels of engagement and intrinsic motivation that Schlechty describes as being so important in the learning process. Emphasising the importance of intrinsic motivation, Dweck (2007) has pioneered the very well-known idea of the *growth mindset*, or the 'belief that your basic qualities are things you can cultivate through your efforts' (Dweck, 2007, p. 7) and that 'the most creative people learn from their failures' (Dweck, 2007, p. 12). Her research has produced three critical findings for those who demonstrate a growth mindset:

• Those with the growth mindset found success in doing their best, in learning and improving;

• Those with the growth mindset found setbacks motivating; and

• Those with the growth mindset in sports (as in pre-med chemistry) took charge of the processes that bring success—and that maintain it.
(Dweck, 2007, pp. 98-101)

Driving this growth mindset, then, is an intrinsic motivation that leads to increased effort, rather than effort motivated by external rewards and punishments. Games critically depend on voluntary participation, and therefore gameplay rewards a player's intrinsic motivation. According to McGonigal (2011), positive psychology has uncovered connections between this kind of voluntary play and the following emotions and experiences:

• Satisfying work

• Experience and the hope of being successful

• Social connection

• Meaning
(McGonigal, 2011, pp. 49-50),

Pink's (2011) groundbreaking work on the most effective forms of motivation has shown that internal motivation yields far greater levels of productivity and learning than do extrinsic motivators. He effectively dismisses much of the old thinking on motivation, instead making the quite convincing case that

'Indeed, the very premise of extrinsic incentives is that we'll always respond rationally to them. But even most economists don't believe that anymore. Sometimes these motivators work. Often they don't. And many times, they inflict collateral damage.' (Pink, 2011, p. 26).

Therefore, the intrinsic motivation that is a natural part of gameplay has the potential to be used to drive the learning process and not only help students to

engage themselves more deeply within the process but to also reward them with several key cognitive benefits, including positive feelings, collaborative social connections with peers, and even deeper, personalised meaning for their work.

Important for the argument that games can play a valuable role within the classroom is the fact that intrinsically motivated goals and a growth mindset can lead to *mastery* of a given skill, in contrast to compliance-based understanding. Regarding goals and the mastery that they can lead to, Pink (2011) continues in his discussion of intrinsic motivation:

'Goals that people set for themselves and that are devoted to attaining mastery are usually healthy. But goals that are imposed by others—sales, targets, quarterly returns, standardised test scores, and so on—can sometimes have dangerous side effects...When the reward is the activity itself—deepening learning, delighting customers, doing one's best—there are no shortcuts.' (Pink, 2011, pp. 48-49).

Traditional tests often serve to punish students with grades that cannot be changed, thereby lowering confidence and interest in continuing the learning process. The feedback system that effective games offer, however, can give way to classroom opportunities for moving beyond the traditional externally-motivated grading system by giving students the chance to practise material until a deep understanding is built without any penalty. Such a gamified system is much more authentic and mirrors the way languages are learned in natural environments, namely, through the trial and error of repeated practice.

In addition to intrinsic motivation, games can also build resilience by teaching learners to embrace failure, given that 'failure leads to optimism' (McGonigal, 2011, p. 64), and so 'more failure leads to more eagerness to do better' (McGonigal, 2011, p. 66). Resilience and the embracement of failure, which is not often taught or even discussed in most traditional school settings today, can therefore be one of the great rewards of gamification and GBL, in that gameplay

can inspire learners both to take risks that they otherwise would avoid and to also learn from taking these risks.

Of crucial importance is the clear connection between taking risks and creativity, as Dweck (2007) has noted for the importance of the growth mindset. Nussbaum (2013), in his thorough study of the importance of creativity, has observed that:

> 'When people are playing, they take risks they would not ordinarily take. They experience failure not as a crushing blow but as an idea they tried that didn't work. Play transforms problems into challenges, serious into fun, one right answer into many possible outcomes. By not limiting yourself to one right answer you open yourself to contemplating outcomes you never might have imagined.' (Nussbaum, 2013, p. 125)

It is now time to treat creativity, much like reading and writing, as a skill that can be improved with continued practice and exposure to new ideas, and as such, it should be given privileged status within the classroom.

Additionally, Torrance's idea of *divergent thinking*, namely 'the ability to come up with many potential answers to questions, not just the right ones' (on which, see Nussbaum 2013, p. 21), is a central feature of *design thinking* and creativity and is another clear benefit learned by game players. Thanks in part to Sir Ken Robinson's bold but correct claim that 'creativity is as important in education as literacy, and [that] we should treat it with the same status' (see Kelley and Kelley, 2013, p. 3), more educators are beginning to understand how crucial creativity, curiosity, and this sort of divergent thinking are to the next generation. There may be no single educational approach that teaches creativity and divergent thinking skills as successfully as games do.

One of the common criticisms levied against games is that they are solitary and played in isolation. While this is sometimes true, McGonigal (2011) has shown that this is not always the case. Some of the more popular games, in fact, often require a high degree of

collaboration and socialising. Gamification and GBL, when applied to classroom settings, should be viewed as inherently social and collaborative, involving large numbers of students. Of special importance, then, is the fact that games can involve a potentially large number of learners in collaboration during class time. In this type of dynamic environment, students make use of play, which also helps to build creativity, and learning becomes student-centred, with students supporting each other's efforts while building social and emotional skills. As a result of their social bias, games give way to the positive emotions (such as feeling good) listed below (see Koster, 2004, p. 92 and McGonigal, 2011, p. 87 and p. 99) stemming from interpersonal interactions:

• *Awe*: feeling we're in the presence of something bigger than ourselves

• *Schadenfreude*: gloating feeling you get when a rival fails at something

• *Fiero*: expression of triumph when you have achieved a significant task

• *Naches*: feeling you get when someone you mentor succeeds

• *Kvell*: emotion you feel when bragging about someone you mentor

• *Grooming behaviours*: signal of intimacy often representing relative social status

In fact, our brains are wired to be social. Lieberman's (2013) research on the brain is beginning to reveal several of the neural mechanisms that are designated specifically for social activity, chiefly among them the brain's 'default network', which is the brain's natural resting state that shows signs that it may be evolutionarily predisposed toward social thinking. In creating the best environments for the brain, Lieberman (2013) suggests that:

> 'Given what we know about the social brain, creating the right social environment in our places of work should be a top priority for anyone who wants the best out of themselves and those around them.' (Lieberman, 2013, pp. 257-258)

In other words, we are happiest and most productive when we are social, and games have the power to bring large numbers of people together to work toward some common goal within a shared game space, whether physical or digital.

To conclude, it is more clear than ever that social and emotional skills are of immense importance for education and that they, moreover, are the essential ingredients for a growth mindset. Based on the fact that language study is largely trial and error, there may be no content area better suited to make use of the ideas essential for games to help boost classroom motivation and raise levels of engagement, and gamification and GBL are the principal tools of the trade.

Boss Level. Towards the Gamification of Latin

As argued above, the trial-and-error nature of language study and its necessary reliance on social culture make the language classroom perhaps the most suitable educational space for experimentation with gamified and game-based curricula. But it is very important to understand that gamification does not imply simply playing games in class, nor does it even require playing games in any way. Rather, gamification, or using game design elements in non-game settings, can be used for the overall structure of the course, with attention paid to how students interact with both the material and with each other, while trying to take advantage of the benefits that play offers.

With this thinking in mind, the 7th-grade Latin curriculum at the Harvard-Westlake School in Los Angeles has been rebuilt around a gamified model described in detail below (see Figure 1 below), based on the core principles of games described above. Each *modulus* contains a vocabulary quiz, a cultural project involving Latin, and a grammar quiz, structured according to the basic game requirements as described by McGonigal:

• *Goal*: The overall goal of the gamified Latin classroom is no different from any other traditional Latin course, namely to master Latin grammar and build fluency

Figure 1. | Latin IA Gamified *Moduli*

Modulus Goal	Tools	Skills
Modulus I: Ancient Geography Populate a shared Google Map with information about a variety of Roman towns, including descriptive information about why the town was interesting using S and DO grammar. Consider the following questions: • What was ancient geography like? • How did the Romans travel? • How did information and news spread?	• Google Maps and Earth • ORBIS Project	• #1 nom. case (Subj., SC) • #1 acc. case (DO) • 3rd. sg. verbs
Modulus II: Daily Life Build an infographic describing your chosen Roman persona using S and DO grammar, and share the infographic with the rest of the class. Consider the following questions: • What is your name? How would you be named? • What is your family life like? • What is a typical day like for you?	• Infographics (easel.ly | Piktochart) • Digital Whiteboards (Padlet | ThingLink)	• #2 nom., acc. cases (sg., pl.) • Noun-adj. agreement • 3sg, 3pl. of all conjugations • #1, #2 abl. case (prep. phrases)
Modulus III: Social Life Use social media to spread propaganda in Roman style. Create a website, Facebook/G+ page, Twitter/Instagram account, etc. to advocate your "cause" (e.g. running for office, reform policy, etc.), and use as many verb persons/numbers as possible. Share your project with the class and be sure to interact with others' work. Consider the following questions: • How did Romans share ideas? Where did the sharing take place? Who was able to share ideas? • What was important to you and your family? • What values do you want to share and why? • What do you want your community to know about you?	• Social Media (Twitter, Instagram, Blogger, etc.) • Website (Weebly, Wix) • Digital Citizenship	• Pres. tense regular verbs
Modulus IV: Architecture and Engineering Construct a Roman structure (e.g. a house, temple, aqueduct, etc.) using a variety of resources (including pencil and paper!) and share it with the class, explaining pertinent details of Roman structures (cf. Open Yale Roman Architecture course) and a few Latin inscriptions. Consider the following questions: • What were some of the most common Roman structures? • What did they look like and why? • How did the Romans build them? • How did Romans use them?	• Architecture (Build with Chrome | Minecraft | SketchUp) • Drawing apps on the iPad (e.g. Penultimate, Paper53, etc.) • Pen/Paper	• Irreg. verbs (*eō, sum, possum*) • 3-*iō* pres. tense • Pres. inf.
Modulus V: Mythology and Storytelling Tell your own version of a mythological story, based on themes in Classical myth and make use of #3 nouns and adjectives. Stories can be told using a variety of tools, including images in Classical style on pen and paper (cf. Panoply). Consider the following questions: • What kinds of stories did the Romans tell each other? • How did they tell these stories? • What does your story reflect about your personal and societal beliefs?	• Digital storytelling (e.g., PowToon, Google Slides/Forms) • Vase painting, Mosaics	• #3mf
Modulus VI: Entertainment Construct a game making use of imperatives, vocatives, and possession that engages players with Latin culture and grammar in some way. It can be a scavenger hunt, "Simon says" game, vocabulary review, or anything else creative. Consider the following questions: • How did the Romans entertain themselves and each other? • What sorts of entertainment was offered in the ancient world? • What are the basic components of a game?	• Digital games (Sploder | Minecraft) • Boardgames	• Imperatives • Voc. case (dir. add.) • Gen. case (poss.)
Module VII: Literature and Literacy Compose a poem or letter to a friend or family member living in a distant town and use the dative case and indirect objects to address them. For this project, Latin should be written in the style of the Vindolanda tablets (cf. the Vindolanda script) on paper. Consider the following questions: • How did the Romans write letters to each other? • What essential information do you need to share in your letter?	• Sharpie and cardboard • Google Docs	• #2n, #3n, including adj. • Dat. case (IO)
Modulus VIII: Classical Reception Explore Classical Reception in the modern world and consider how Classical culture has impacted us today, especially within Los Angeles (cf. lolcatullus and Go Proverbs!). Consider the following questions: • Where in the city can we find examples of Classical themes, and what do they reflect for us? • In what ways does Greek and Roman culture still resonate with us today?	• Meme generators (Blabberize | Memeful)	• Impf. tense • Plain abl. uses • Case review

with Roman culture; but the means by which it is done has been redesigned to allow students to explore the world they create with each other and for each other, driven by the cognitive science behind gamification. This course also invites students to do more with culture through the creation of linked 20%-time projects of their own choosing, in which the goal is to build a persona reflecting the student's own identity and follow that persona through a number of design projects focusing on Roman culture. In reflection on last year's curriculum, students invest themselves in projects more deeply when the work reflects back on them and when they are asked to put themselves into the mindset of someone who lived in the ancient world.

• *Rules*: The course is divided into 8 *moduli* or 'game levels', each of which contains core grammatical content (e.g., vocabulary, forms, case usage, etc.). Also, each *modulus* has a central cultural theme, for which students will do project work around ideas of their own choosing. The *modulus* distribution is gamified around a series of cumulative projects that build on ideas from each student's previous work. Moreover, each project task is focused around human-centred design, in which students are asked to consider ancient perspectives while using modern tools. To 'pass' any given *modulus*, students must demonstrate mastery of the grammatical and lexical content in quizzes, while also building an interactive project that makes use of the cultural content in the *modulus*.

• *Feedback*: Each *modulus* offers a vocabulary quiz and a 'grammar' quiz, in which students test their mastery of the grammatical content through reading and composition exercises. All quizzes can be retaken by students as often as they choose, with individual scores averaged. Additionally, most homework grades have been replaced by 'pop quizzes' that are assessed on a 'check' basis reflecting mastery of a particular skill (such as declining a noun-adjective pair), with a 'check-plus' (i.e., a 3/3 in the formal gradebook) showing mastery, a 'check' (2.7/3) near mastery, and a 'check-minus' (2.5/3) sub-mastery. Students can retake pop quizzes as much as desired, with each retake replacing the previous grade in the gradebook. Cultural project feedback is given by peers who interact with all of their classmates' projects in a given *modulus*.

• *Voluntary Participation*: Participation is not a component of student grades and is not graded in any way, since evaluating and assigning a grade for individual participation is nebulous and, ultimately, an external means to control behaviours (for more on grading participation, see Pike 2014a). Instead, students are invited to determine their own level of participation, with respect to their 20%-time projects which give the students choice in the topics they work on and the medium in which their work is done. Whether a student wants to build a working aqueduct in *Minecraft* or build a Roman villa by hand, the choice is theirs, provided they engage with the current project in some minimal way and connect it back to their previous work.

For instance, after learning about ancient geography and building a collaborative map together as a class (on which, see Pike 2014b), students are asked to imagine themselves living in one of the places in our map and so develop their own identity shared through an infographic in which students explore daily life within the Roman world by creating a persona and exploring how this persona could have interacted with others. Using this identity in subsequent projects, students move through a series of design opportunities challenging them to interact with others in the ancient world space that the class creates for itself. Using only a few boundary rules to guide the work, students must engage with the *modulus* theme by creating something for their classmates. With their infographics as a starting point, students question how Romans interacted socially and exchanged ideas with others by creating social media profiles based on their own persona, asking how Roman politicians, small-business owners, etc. might have used social media to promote their ideas. Next, students explore how their personas would have interacted with physical space using *Minecraft* or *Sketchup* to reconstruct important or frequently used Roman structures (on which, see Pike, 2015). And students also have the opportunity for reflection on the societal value of storytelling by making and sharing digital stories with each other.

After a year's worth of experimentation, the cognitive benefits gained from the gamified system are clearly apparent. Though not all students are uniform in agreement about the features of the course, a vast majority of students report that the project work is 'fun', and that they enjoy the 'gaming aspect that brings the 21st century with mix of the traditional approach', as one student reports. Because their work has been personalised through exploring how they may have lived in the ancient world, students have gained a much deeper engagement with Roman culture and the questions that it offers. In fact, one student has been pleasantly surprised that he has 'learned a lot of Latin fairly quickly' in a single semester, and another reports that she likes 'the pace we learn at because it's not too quick or too repetitive and gives us time to understand the material.'

Students have demonstrated higher levels of resilience, compared to previous classes, by embracing the opportunity to retake quizzes and test their understanding of grammatical material. A student claims that 'retakes give us a chance to realise what's wrong, and they boost our self-esteem by letting us learn from mistakes and use what we learn to make something better.' Indeed, student mastery of formal material has improved from repeated opportunities to assess their understanding, as is summed up perfectly by one student's opinion on the course's collaborative spirit in approaching challenges: 'learning is more important than watching other people fail.'

By connecting project work across each *modulus*, students can creatively connect more 'dots' and build new projects with new ideas, based on their previous work, and they also get to build on the work of others. Students, for example, collaborated in building different parts of a Roman town in the *modulus* focusing on Roman architecture and engineering, with one student building a villa, another building the aqueduct that supplies the villa, and yet another building the bath complex for the virtual inhabitants. Of this project, one student commented that 'collaboration in *Minecraft* server allowed us to see what others were building and get more ideas for our own structure from others.' Project work in general, said

several students, 'sparks our creativity. We work off of guidelines but we can make it our own by taking other ideas and exploring.'

Furthermore, the gamified approach has also proven quite effective in building a collaborative 'Yes, and…' classroom culture allowing students to reinforce each other's ideas and work together in projects without falling into the usual traps of more traditional 'groupwork'. In comparison to where the class began at the start of the year, 'collaboration has helped us learn how to work together better in Google Docs,' according to students, and students have greatly enjoyed 'working with other people who help to guide us' through both grammatical work and project activities.

There has also been a flood of the positive emotions that McGonigal has described while working through course objectives. Students have expressed *awe* at their collective work, knowing that they are contributing one part of a greater whole, and there has also been much *Schadenfreude* entertaining the class, when construction projects or videos have not developed according to plan. Successful projects are always celebrated by students with *fiero*, and the collaborative culture that encourages students to help each other out has produced *naches* and *kvell*, as students boast of their classmates' work. It is not uncommon to find a large group of students retaking pop quizzes in the World Languages Department office during their free time, while exchanging *fiero* and *Schadenfreude* among themselves. All told, students have learned to take pride in their work and in their progress, which has helped us to take a step toward forging a growth mindset.

Bonus Level. Challenges and the Next Steps

The Latin curriculum described here is still undergoing development, and there remains much work left to be done; but it represents the first step toward an entirely gamified classroom, with several other thinkable approaches possible, including using more game-based activities. Despite the overwhelmingly positive gains from a gamified course curriculum, the curriculum design process, which poses some obstacles to overcome, can be quite time-intensive and challenging. In addition to the time necessary for making and grading multiple versions of retake quizzes, some of the problems experienced to this point include the following:

• *Badging*, or the tokens that acknowledge specific achievement, that mark mastery can be very valuable in incentivising student work to an extent, but they can be difficult to organise and share without a dedicated digital space. Paper badges can also be troublesome to track over the course of a yearlong course. As more GBL activities that help students demonstrate mastery are pursued in the coming months, including the ClassTracks vocabulary tool currently in development, badge integration will be further explored.

• A gamified system privileging mastery of skills works best within a *standards-based learning* structure, but the traditional grading systems still in use in the majority of schools today can make mastery models difficult to understand, implement, and report on. Even when mastery is a central focus, as in this Latin course, traditional grades prove to be distracting external motivators.

• On account of the fact that the cognitive benefits gained from gamification are most effective when play is social (see on McGonigal above), 20% projects benefit most when students are given sufficient class time to do quality in-class work together, developing collaboration and creative skills. The current 40 minute class length at the Harvard-Westlake Middle School, therefore, stands as a major obstacle toward larger-scale gamification and student collaboration.

• Even within a traditional school structure, the gamified approach described above allows for more opportunity for self-paced learning and, within the *moduli* project work, student choice and personalisation. Students who meet vocabulary and grammar with difficulty are have occasion for more practice and receive less penalty on quizzes by being given multiple chances to retake them, thereby building more confidence in their grasp of the material. But the course has not yet progressed to the point where students take quizzes only after they feel ready, which is a goal of a fully gamified course built on the principles of mastery according to standards.

• Finally, while a gamified system of the sort described here works very well for a 7th-grade introductory Latin course with a single teacher, it could prove to be challenging to scale it up to later levels within a Latin course sequence, in particular in courses with a team-teaching model. Gamification of the course curriculum requires full buy-in and commitment to the model from everyone teaching the course.

Notwithstanding the challenges of the gamified classroom and the traditional nature of some of the system, the students have successfully embraced the *moduli* challenges and have welcomed the project work as a departure from more traditional work. The cognitive benefits and non-cognitive skills gained from the system have are readily apparent, with much higher levels of engagement and comprehension on account of the "trial and error" nature of the gamified system that allows students to learn from failure, rather than be punished by it. Continued experimentation with the gamified course structure should only help to tighten the overall curriculum, thereby making it even more engaging and rewarding for students.

Index Verborum

20%-time project Project of one's own choosing done in free time given by organisation.

awe Feeling of belonging to something bigger than the self.

badge A token of accomplishment for a given skill or achievement often in digital or paper form.

design thinking People-centred problem solving.

divergent thinking Ability to find multiple solutions to a problem.

fiero Personal feeling of pride in one's success.

game-based learning Learning through playing games.

gamification Application of game elements to non-game contexts.

grooming behaviours Signal of intimacy often representing relative social status.

growth mindset Belief that one can change inherent qualities through own efforts.

kvell Emotion one feels when bragging about someone mentored.

mastery Attainment of appropriate level of competency in given content area.

naches Pride from watching others we've tutored succeed.

non-cognitive skills Skills that cannot be measured in a traditional way (e.g., creativity).

positive psychology Field of psychology focusing on positive emotions like happiness.

Schadenfreude Gloating feeling one gets when a rival fails at something.

standards-based learning Assessment based on mastery of specified standards.

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