James Paul Gee (2005) learning principles that ‘good games’ incorporate:


1. **Identity**
   - take on a new identity; to make a commitment

2. **Interaction**
   - “Games do talk back. In fact, nothing happens until a player acts and makes decisions. Then the game reacts, **giving the player feedback and new problems**” (Gee, 2005, p34) – context of an interactive relationship between the player and the world – same as in school.

3. **Production**
   - Players are producers, writers. “Even at the simplest level, players co-design games by the actions that they take and the decisions that they make” (Gee, 2005, 35) – unique choices – players can even modify some games. “Players help ‘write the worlds, in which they live – in school, they should help ‘write’ the domain and the curriculum that they study” (Gee, 2005, 35)

4. **Risk taking**
   - Failure as a good thing – Players can start from the last saved game when they fail. Encouraged to take risks, explore, and try new things. Initial failures are used as ‘ways to find the pattern, **to gain feedback**’. “School too often allows much less space for risk, exploration, and failure”. (Gee, 2005, 35).

5. **Customization**
   - Players can customize a game to fit their learning and playing styles. Different difficulty levels. Allow players to solve problems in different ways. Try out new styles. “Customized curricula in school should not just be about self-pacing, but about real intersections between the curriculum and the learner’s interest, desires, and styles” (Gee, 2005, 35).

**Socially inclusive classroom**

**Source:** New Zealand Ministry of Education.(n.d). Inclusive education: guides for schools

http://inclusive.tki.org.nz/guides/all-guides/

- Valuing what each student brings to the classroom - includes:
  - Learner profiles, identity, culture, language, relationships

- Providing multiple ways to create, learn, and demonstrate understanding
  - Select digital technologies that support communication and collaboration
  - Support the expression of ideas and understandings
  - Help students to plan and manage their learning and monitor their progress

- Creating engaging environments and sustaining motivation – includes:
  - Match teaching strategies to students’ preferences, strengths and needs
  - Support self-organisation and time management
  - Support students to create, learn, share with others beyond the classroom
6. **Agency**

   players feel a real sense of agency and control, sense of ownership over what they are doing in games – rare in school (Gee, 2005, 36)

7. **Well-ordered problems**

   “Problems players face are ordered so that the earlier ones are well built to lead players to form hypotheses that work well for later, harder problems. It matters how the problem space is organized – that is why games have ‘levels’. Equal attention needs to be paid to how to order problems in a rich immersive space in a ...classroom” (Gee, 2005, 36).

8. **Challenge and consolidation**

   Games provide for “cycle of expertise”. Good games offer players set of challenging problems, then let them solve these problems until their solutions are virtually automatic. Then the game throws a new class of problems at the player, requiring them to rethink their now taken-for-granted mastery, learn something new, and integrate this new learning with their old mastery. This is repeated. (Gee, 2005, 36).

9. **“Just-in-time” and “On-demand”**

   when players need and can use it; or when player feels a need for it -, wants it, is ready for it, and can make good use of it.

10. **Situated meanings**

    in terms of actions, images, dialogues

11. **Pleasantly frustrating**

    “Good games stay within, but at the outer edge, of the player’s ‘regime of competence’ (diSessa, 2000 ... ‘doable’ but challenging (Gee, 2005, 36)

12. **System thinking**

    games encourage players to think about relationships...how each action taken might affect their future actions and the actions of the other players playing against them ...(Gee, 2005, 36).

13. **Explore, think laterally, rethink goals**

    games encourage players to explore thoroughly before moving on; to think laterally, not just linearly; and to use such

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- Support the expression of ideas and understandings

Planning learning where everyone can participate and achieve - includes:

- Personalised learning, deficit language, student voice
- Offer a blend of classroom and online blended learning opportunities to provide students with choice and autonomy
- Create flexible learning environments that students can personalise to suit their needs
- Establish a way of talking about learning that focuses on what a student can do and their next steps
- Provide regular opportunities for students to say what is working well in the classroom and what needs modifying

Supporting independent access to learning materials

- Understand how digital text may be preferable to print media as a learning tool
- Offer materials, information and content in a range of media to increase access for learners
exploration and lateral thinking to reconceive one’s goals from time to time. (Gee, 2005, 36).

14. Smart tools and distributed knowledge
Characters have skills and knowledge of their own that they lend to the player... In MMG (massive multiplayer game) players work in teams where each member contributes his or her distinctive skills. The core knowledge needed to play the game is now distributed among a set of real people and their “smart tools” virtual characters (Gee, 2005, 37).

15. Cross-functional teams
Players often play in teams (parties) in which each player has a different set of skills (e.g., Mage, warrior, druid) which they must master on their own speciality (function)....in teams, people are affiliated by their commitment to a common endeavour, not primarily by their race, class, ethnicity or gender (Gee, 2005, 37).

16. Performance before competence
Players can perform before they are competent, supported by the design of the game, the “smart tools” ...the support of other, more advanced players (in multiplayer games, chat rooms or in the physical space/classroom).

Establishing a caring, supportive and respectful class climate – includes:
- Explore differing perspectives: learn about diversity, equity & inclusion
- Have high expectations for all learners & celebrate their successes
- Strengthen a supportive peer culture

Supporting and strengthening peer relationships
- Teach social skills
- Facilitate positive peer relationships
- Use structured approaches to support friendships

Structuring your classroom to promote collaborative learning
- Organise the classroom environment to support collaboration
- Plan a range of opportunities for students to work collaboratively
- Use cooperative learning strategies

Taking a community approach to supporting learning and well being
- Build relationships with family...and collaborate with local community