



principle 1

Learning by Designing

Research has shown that people learn best when they are actively engaged in exploring, experimenting, and expressing themselves, not just passively receiving information.

More and more schools are focusing on learning-by-doing, involving students in hands-on activities. Computer Clubhouses follow a similar strategy, but go a step further: members don't simply get their hands on computers, they use computers to design, create, and invent things. It's not just learning-by-doing; it's learning-by-designing.

As Clubhouse members design their own illustrations, animations, robotic constructions, and music compositions, they learn valuable technical skills while also learning about the process of design and invention: how to conceptualize a project, how to make use of the materials available, how to persist and find alternatives when things go wrong, and how to view a project through the eyes of others.

The Clubhouse Learning Approach is designed to empower youth from all backgrounds to become more capable, creative, and confident learners.

The Clubhouse Learning Approach is grounded in research from the fields of education, developmental and social psychology, cognitive science, and youth development. It builds on research on the role of affect and motivation in the learning process, the importance of social context, and the interplay between individual and community development. It leverages new technologies to support new types of learning experiences and engage young people who have been alienated by traditional educational approaches.

principle 2

Following Your Interests

When people care about what they are working on, they are willing to work longer and harder, and they learn more in the process.

Clubhouses provide members with a great deal of choice, so that members can find projects and activities that they really care about. Members choose when to come, when to leave, what to work on, who to work with.

But running a Clubhouse is not simply a matter of letting youth do what they want. Clubhouses need to provide a great deal of support and structure to help youth identify their interests, turn them into meaningful projects, and learn from the experience. Clubhouse structure comes in many forms: the selection of software, the arrangement of furniture, the collections of sample projects, the support materials, the guidance from staff and mentors. The key is to provide choice plus structure, so that members have the freedom to follow their fantasies, but enough support to turn those fantasies into realities.

principle 3
Building a Community

When people think about thinking, they often imagine Rodin’s famous sculpture The Thinker: a solitary figure, sitting by himself, with his head resting on his hand. But in the past decade, educational researchers have increasingly focused on the importance of social interactions in the ways people think and learn.

Clubhouses are designed to foster the growth of a learning community, in which youth of different ages share ideas and work together on projects, with support from staff and adult mentors. No one is assigned to work on any particular team. Rather, communities emerge over time. Design teams form informally, coalescing around common interests. Communities are dynamic and flexible, evolving to meet the needs of the project and the interests of the participants.

Through their interactions and collaborations with a diverse community of members, staff, and mentors, Clubhouse members gain new perspectives for thinking about the world around them – and also new ways of understanding themselves.

principle 4
Respect and Trust

Communities flourish only if they are built on a foundation of respect and trust, in which people respect one another’s ideas, opinions, and values.

At Clubhouses, young people are treated with trust and respect – and are expected to treat others the same way. In many settings, youth are reluctant to try out new ideas, for fear of being judged or even ridiculed. At the Clubhouse, the goal is to create an environment in which participants feel safe to experiment, explore, and innovate. Youth are given the time they need to play out their ideas; it is understood that ideas (and people) need time to develop.

Clubhouse staff and mentors do not simply dole out praise to improve the “self esteem” of the youth. They treat youth more like colleagues, giving them genuine feedback, and pushing them to consider new possibilities. They are always asking: What could you do next? What other ideas do you have?

The Clubhouse Learning Approach shares many ideas and goals with educational-reform initiatives.

Traditional Classroom	Educational Reform
Acquire facts, information	Learn through hands-on inquiry
Students work alone	Students collaborate
Learning isolated skills	Learning skills in context
Focus on memorization	Focus on understanding
Short-term assignments	Long-term projects
Separate disciplines	Connections among disciplines
One lesson fits all	Support different learning styles
Teacher: sage on the stage	Teacher: guide on the side