

The classroom space is no longer just a place to sit and pay attention. It has evolved into an interactive, multi-functional tool used to assist educators in the facilitating of a variety of learning modules.

Classroom of the Future

A White Paper By PBK Architects and Kimball [®]



LERDAHL



How education is changing

Higher education is re-evaluating classroom functionality. Advances in technology and increased student diversity has driven the change from a lecture platform to a collaborative teaming environment. Chalkboards and rows of chairs with tablet arms are no longer efficient learning spaces. Universities and schools are seeking spaces that allow for multi-modal pedagogy, collaboration, and flexibility.

- Multi-Modal Pedagogy

 - Blending of teaching methods and technology for effective hands-on, interactive learning

- Collaboration

 - Students prefer to learn from each other in groups

- Flexibility

 - Classrooms need to be adaptable to support multi-modal pedagogy and collaboration

Students prefer to collaborate in class and perform individual work at home, making the classroom a much more interactive place. Watching lectures, podcasts, and reading are tasks that students can perform alone. In class, everyone is an educator. The instructor can facilitate activities and conversation, yet allow students to learn from each other. The problem is, the classroom being used to foster this dynamic method of learning is still very stagnant.





2021 Classroom of the Future

PBK Architects partnered with Kimball and DIRTT for the 2021 Classroom of the Future exhibit at the 2012 CEFPI Conference. The exhibit called on designers to create a classroom based on the needs and functionality of students of the future. Attendees observed students interacting with each other (as well as those outside of the classroom) in 21st century classroom settings that employed the latest in green, sustainable, efficient design.



The Innovative Workplace Model and Higher Education

The Innovative Workplace Model was developed by the University of Kentucky in 2010. Research was conducted in efforts to develop strategies to maximize the workplace, and in turn, employee production and satisfaction. These same trends can be applied to higher education.

The “Learner Think Tank”, the name for PBK’s classroom space, was designed around the eight dimensions of the Innovative Workplace Model. These dimensions work together to create dynamic environments that support learners and help them meet their goals. Although these dimensions seem independent, they are interrelated. As a whole, they provide a strong foundation for the Learner Think Tank.

8 Dimensions of the Innovative Workplace Model

PBK took each of the following principles, adapted them to be appropriate for the education environment, and incorporated them into the design:

1. Effective Leadership and Supervision

- Workplace

Management techniques that respect and support a variety of thought and work styles.

- Classroom

Facilitators work with each student's learning style to create the best learning environment.

2. Learning and Advancement

- Workplace

Management strategies that promote tasks and projects that challenge employees.

- Classroom

Activities are designed based on student's strengths and interests, so they are engaged in their own learning.

3. Workplace Flexibility

- Workplace

Flexible work arrangements allow employees to balance work related and non-work related responsibilities, reducing stress and increasing performance.

- Classroom

Students are allowed the flexibility to work on the schedule that best suits them, the Think Tank provides them flexible and varied settings for tackling diverse activities and tasks.

4. Culture of Inclusion

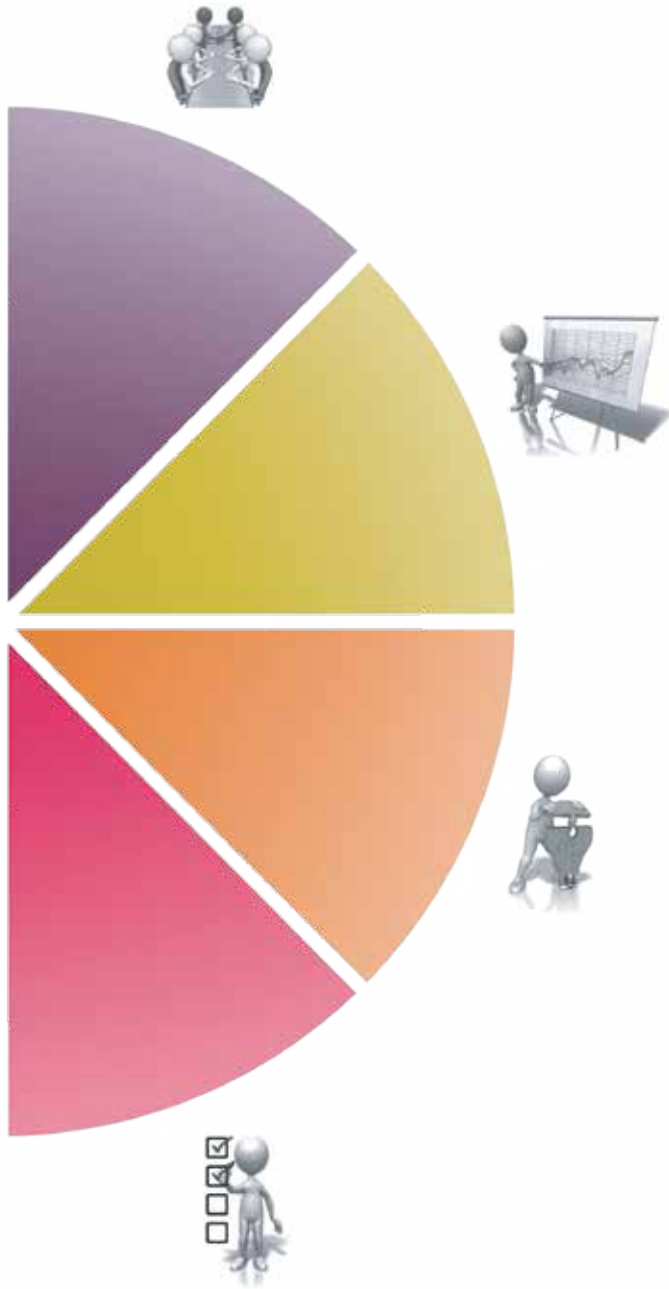
- Workplace

An inclusive work environment that strengthens everyone's ability to commit and to accomplish the desired business result.

- Classroom

Students feel comfortable in the learning environment as they share their own ideas, which may be based on their own cultural background. Students are met with respect and support and commit fully to learning as they are interested in everyone's input and ideas.





5. Meaningful Work

- Workplace

Work environment that results in longer employee tenure and less turnover as employees are engaged in meaningful work.

- Classroom

Students are challenged while given the opportunity to be creative and rewarded for their work. Facilitators allow learners to identify projects that they consider meaningful and assist in making real life connections based on their selected tasks.

6. Cultivation of Social and Support Teams

- Workplace

Employees stay working for the company as the environment allows them to develop close relationships.

- Classroom

Students and Facilitators have a connection that is based on trust, allowing them to work together collaboratively. Students also have the opportunity to develop connections among themselves.

7. Competitive Compensation and Benefits

- Workplace

Work environment that focuses on results over hours, empowering employees to take charge of their schedule.

- Classroom

Accomplishments are rewarded and celebrated which empowers students to take on more challenges and become more engaged in their work. Trust received from the facilitators urges productivity and creativity.

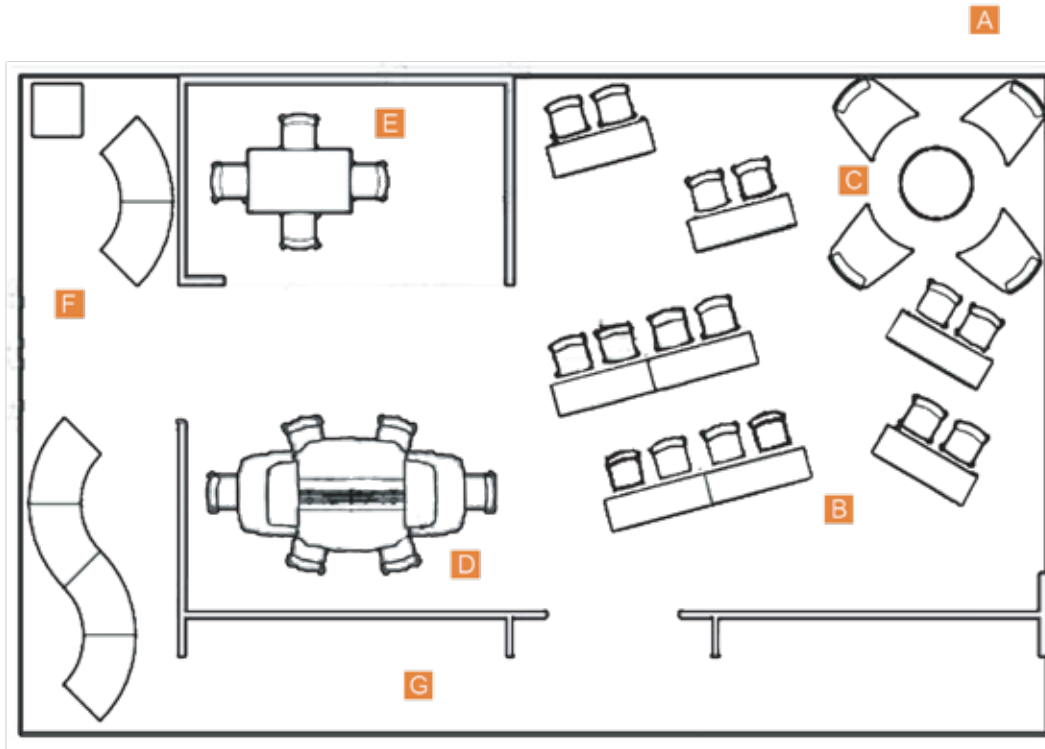
8. Health and Wellness

- Workplace

Work environments that promote health beyond just exercise and diet. These environments foster relationships between supervisors and employees in order to reduce stress and other associated health risks.

- Classroom

Understanding the connection between movement and learning, the think tank encourages movement as part of the daily routine. Trusting relationships between facilitators and students help identify students' needs early, so the proper support can be provided.



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|--------------------------------|-----------------------------|------------------------------------|
| A Outdoor Learning Area | D Innovation Station | G Storage and Support Space |
| B Large Group Area | E Quiet Tank | |
| C Informal Break Out | F Spill Space | |

The Learner Think Tank

With these dimensions in mind, PBK designed a classroom space to enhance the learning experience. The Learner Think Tank combines seven key areas capable of serving multi-modal pedagogies and learning activities. Each space fosters communication, collaboration, creativity, and innovation. According to Tim Springer, PHD, “creative interactions can take place anywhere – individual offices, hallways, lunch rooms, informal spaces, and meeting rooms. The challenge is to support both independent and interactive work and easily transition between the two modes.”

Outdoor Learning Area

Opening up the learning space to the outside, the outdoor learning area allows the classroom to become an intriguing space that invites people in.

Large Group Area

The large group area accommodates a variety of classroom activities including individual work, lectures, or group exercises. Lightweight, mobile furniture allows for quick and easy reconfiguration. The space has the ability to adapt and support different teaching methods and learning styles. The focal wall incorporates technology to enable presenting, sharing, conferencing, and more.

Informal Break out Space

Inside the large group area, this fun, relaxing space allows for conversation and idea sharing.

Because the seating is light weight, this area can be relocated anywhere in the room.

Innovation Station

Perfect for developing new ideas and concepts, the innovation station supports both physical and cognitive ergonomics. The Hum. Minds at Work. station allows for students to work individually, but also collaboratively when wanted. Complete with the “Breathe Wall” and the graphic ceiling, the space is inspiring, energetic, and fun.

Quiet Tank

Adjacent to the innovation station is the quiet tank, where students can focus. The table allows for conversation, with walls that provide privacy. The acoustics of the space are enhanced by the ceiling treatment, making for a perfect room for further evaluation of concepts and developing plans of action.

Spill Space

The spill space is ideal for informal conversation, brainstorming sessions with other classmates, and observation of activities happening in the room. The graphics, transparency, seating configuration, and flooring pattern help to create a bright space for thought exploration.

Support and Storage Area

Adjacent to the large group area, the support and storage area is intended to benefit all areas of the Learner Think Tank.



Learner Think Tank Organizational Strategies

- Multi-purpose space for a variety of activities, which reduces the need for spaces dedicated to specific functions.
- On-site/flexible/drop-in spaces: Unassigned workspaces that are available on a first come, first serve basis.
- Hoteling: The treatment of workspaces like a hotel, where one can reserve a space for the time they need and release it to be used by others when finished.
- Zones and neighborhoods: Creating activity-based spaces that are clustered together.

Learner Think Tank Practical Features

- The workspace has an experimental component. Natural light, bright colors, and graphics create visual stimulation.
- The workspace is productive, with a variety of settings to accommodate different learning styles.
- It provides diversity with a wider and richer range of work settings that can support multiple activities.
- It includes more shared space; space that is not owned and can be used by different people daily.
- It is sustainable, bringing nature into the space, and utilizing materials that are environmentally friendly.
- The classroom allows for reconfiguration to occur as needed, with wall systems that are demountable, technology-friendly, and sustainable in their construction.



The world of learning is changing, and its relationship to the workplace is growing. The need for flexibility, agility, creativity, and collaboration is growing as demanded by changes in technology, economics, and globalization. The design of the Learner Think Tank, based on the eight dimensions of the innovative workplace, allows change to occur naturally and positively. The opportunities for students to learn and perform at their full potential is maximized, while maintaining an environment centered on trust, respect, and fun.

References

Swanberg, J., (2010), the innovative workplace: a white paper on developing an innovative workplace. The Working Think Tank powered by University of Kentucky.

Springer, T, (2011), Fundamentals of Workplace Strategy, Kimball Office

Our Process

The Lerdahl 4D Approach

DISCOVER

- Get to know you
- Programming
- Needs Analysis
- Department Interviews

DEFINE

- Space Planning
- Typical Development
- Budgeting
- Product Evaluation

DESIGN

- Final Furniture Plan
- Final Furniture Selection
- Discount Structure
- Finish Selection
- Specifications
- Final proposal

DELIVER

- Order
- Delivery Schedule
- Installation Plans
- Work Order
- Pre-Install Site Review
- Installation



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