



“Active and Experiential Learning Report”

Introduction

Business college educators have continuously been challenged to offer a learning experience for students that prepare them to successfully compete in an evolving and challenging business environment. The increased desire in graduating students who are capable of demonstrable business competencies prior to entering the workforce has led to a shift in the academic community. Experiential learning has gone from the rare and exceptional experience, to a more standard method of education.

Furthermore, the Association to Advance Collegiate Schools of Business (AACSB) launched in the spring of 2013 new standards for accreditation of its member business schools. This revision was in direct response to the new challenges of creating value in an increasingly global, interactive and fast changing business world and society. Many new challenges and pressures on business schools have forced a shift in the teaching and learning models required to prepare business school graduates for successful careers and meaningful social, professional and personal lives. Under the newly revised standards, re-accreditation by AACSB will require that schools provide evidence of ongoing improvement in three areas: innovation, impact, and engagement (AACSB, 2013).

The core foundation that drives these three educational areas is value creation, both from a scholarly and practitioner's perspective. Business schools have been teaching principles of value creation and their value drivers for years in management, finance, economics, MIS, accounting and marketing. The new accreditation standards are demanding that business faculty apply the same value-driven mindset to their own educational strategies.

Through the examination of relevant and recent literature, this report identifies the definition of Experiential learning in addition to its main principles as noted from the Association for Experiential Education. Also presented is an overview of the instructor and student roles in experiential learning. Additionally, this report addresses the increasing importance of experiential learning as a core component of the College of Industrial Management undergraduate business curriculum. This is done by firstly examining and presenting a list of widely used active and experiential methodologies that have been implemented in well recognized institutions around the globe and which the committee believes can be used in an array of CIM courses. Secondly, the report outlines a list of hardware and software tools that are used in by a variety of established University colleges and how those tools would add to the AEL experience of the courses. This is followed by a look at current resources available to faculty and students at KFUPM that can be utilized for the Active and Experiential Learning (AEL) experience of different CIM courses including networking resources and strategies for AEL. Finally, the report concludes with a list of recommended action plan items to incorporate the detailed methodologies, tools, and available recourses.

AEL in Education

The Association for Experiential Education states “Experiential [learning] is a philosophy and methodology in which educators purposefully engage with students in direct experience and focused reflection in order to increase knowledge, develop skills, and clarify values” (Association for Experiential Education, paragraph. 2).

Furthermore Wurdinger and Carlson mention in their book, Teaching for Experiential Learning (2010), that most college faculty teach by lecturing because few of them learned how to teach otherwise. Although fine lecturing skills must be part of any educator’s teaching repertoire, faculty should also actively involve their students “in the learning process through discussion, group work, hands-on participation, and applying information outside the classroom”. This process defines AEL where students are actively involved in course content engagement in which they have a personal interest, need, or want.

As for the core principles of AEL in academics, the Association for Experiential Education lists following as main principals (Association for Experiential Education, 2011, paragraph 4):

- Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis.
- Experiences are structured to require the student to take initiative, make decisions and be accountable for results.
- Throughout the experiential learning process, the student is actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative and constructing meaning.
- Students are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic.
- The results of the learning are personal and form the basis for future experience and learning.
- Relationships are developed and nurtured: student to self, student to others and student to the world at large.
- The instructor and student may experience success, failure, adventure, risk-taking and uncertainty, because the outcomes of the experience cannot totally be predicted.
- Opportunities are nurtured for students and instructors to explore and examine their own values.
- The instructor’s primary roles include setting suitable experiences, posing problems, setting boundaries, supporting students, insuring physical and emotional safety, and facilitating the learning process.
- The instructor recognizes and encourages spontaneous opportunities for learning.
- Instructors strive to be aware of their biases, judgments and pre-conceptions, and how these influence the student.
- The design of the learning experience includes the possibility to learn from natural consequences, mistakes and successes.

The Instructor role in AEL is more guiding rather than directing the learning process whereas students are naturally interested in learning. Referencing once again Wurdinger and Carlson's book, *Teaching for Experiential Learning* (2010), two essential lists are presented outlining guideline steps for the instructor roles and the student roles in experiential learning.

The instructor guidelines steps mainly are:

1. Be willing to accept a less teacher-centric role in the classroom.
2. Approach the learning experience in a positive, non-dominating way.
3. Identify an experience in which students will find interest and be personally committed.
4. Explain the purpose of the experiential learning situation to the students.
5. Share your feelings and thoughts with your students and let them know that you are learning from the experience too.
6. Tie the course learning objectives to course activities and direct experiences so students know what they are supposed to do.
7. Provide relevant and meaningful resources to help students succeed.
8. Allow students to experiment and discover solutions on their own.
9. Find a sense of balance between the academic and nurturing aspects of teaching.
10. Clarify students and instructor roles.

As for the student roles, those are mainly:

1. Students will be involved in problems which are practical, social and personal.
2. Students will be allowed freedom in the classroom as long as they make headway in the learning process.
3. Students often will need to be involved with difficult and challenging situations while discovering.
4. Students will self-evaluate their own progression or success in the learning process which becomes the primary means of assessment.
5. Students will learn from the learning process and become open to change. This change includes less reliance on the instructor and more on fellow peers, the development of skills to investigate (research) and learn from an authentic experience, and the ability to objectively self-evaluate one's performance.

AEL can be measured by the qualities it spread to its learners. Successful AEL learners can reason for themselves and are able to successfully explain their position. In AEL, the student manages their own learning, rather than being told what to do and when to do it. The relationship between student and instructor is different, with the instructor passing much of the responsibility on to the student. Hence, the instructor is a guide, a cheerleader, a resource, and a support. However, implementing any new teaching technique can be a challenging task. Some students may not accept new learning activities with complete ease. Rather than trying to engage all students, focus on engaging more students in more meaningful ways.

AEL Methodologies for Business Schools

Here are some of the most widely used methodologies that have been implemented in well recognized institutions around the globe

Think/Pair/Share or Write/Pair/Share

Objective: This methodology is designed to differentiate instruction by providing students time and structure for thinking on a given topic, enabling them to formulate individual ideas and share these ideas with a peer. The objectives are to engage students with the material on an individual level, in pairs, and finally as a large group.

Method: Have students turn to someone near them to summarize what they're learning, to answer a question posed during the discussion, or to consider how and why and when they might apply a concept. This works well with pre-planned questions and with ideas that emerge during a larger group discussion.

Flipped classroom

Objective: In terms of Bloom's revised taxonomy (2001), this means that students are doing the lower levels of cognitive work (gaining knowledge and comprehension) outside of class, and focusing on the higher forms of cognitive work (application, analysis, synthesis, and/or evaluation) in class, where they have the support of their peers and instructor.

Method: The flipped classroom describes a reversal of traditional teaching where students gain first exposure to new material outside of class, usually via reading or lecture videos, and then class time is used to do the harder work of assimilating that knowledge through strategies such as problem-solving, discussion or debates.

Shared Brainstorming

Objective: Brainstorming techniques are methods that encourage creative actions. They focus on a variety of aspects of creativity, including techniques for idea generation and divergent thinking, methods of re-framing problems, changes in the affective environment and so on.

Method: The instructor disseminates sheets of paper to each small group of 3-5 people. On each sheet is a different question. Team members generate and jot down answers to the given question. The instructor then instructs each group to rotate to another sheet containing a different given question to answer. Depending on the time available, this procedure is repeated, giving each group the opportunity to respond to as many questions as possible. At the end of this activity, each group returns to their original question sheet, reviews the given responses, generates a summarization of ideas, and shares their conclusions etc. with the entire group.

Scenarios/Case Studies

Objective: The objective of doing Case Studies is to allow students with real expertise and understanding, as well as judgment to excel. It requires the students to take risks, make judgements in uncertain situations, and to propose and select from multiple possible options, none of which may be “right” or “wrong”.

Method: Scenarios or case studies Provide students with a "local" example of a concept/theory/issue/topic being covered in the discussion. They discuss and analyze the scenario/case, applying the information covered in a presentation to some situation they may encounter outside of the class. Students can briefly present their findings to other small groups or to the whole group or simply record ideas on an overhead/white board so that instructor can draw questions and synthesis from the material. Students can also develop (individually, in pairs, groups) their own work-based case studies and exchange them with others for discussion and analysis.

Training Games

Objective: Learning doesn't mean rote memorization - it means acquiring the skills and thought processes needed to respond appropriately under pressure, in a variety of situations. Within an effective game-based learning environment, students work toward a goal, choosing actions and experiencing the consequences of those actions along the way. They make mistakes in a risk-free setting, and through experimentation, they actively learn and practice the right way to do things.

Method: Gamification takes the essence of games — attributes such as fun, play, transparency, design and competition — and applies these to a range of real-world processes inside an organization, including learning & development. It simulates business and professional situations such as the Platform Wars, Beer Distribution Game used to teach strategic competition and supply chain management, and the Friday Night at the ER game used to teach systems thinking.

Personal Response Systems (Clickers)

Objective: The technology offers the lecturer and students themselves the opportunity to assess understanding of material covered, and the lecturer can return to material if they feel that it has not been sufficiently well understood. In addition, the Personal Response System (PRS) necessitates active student learning in lectures, and so may sustain student concentration and interest levels.

Method: PRS is an instructional technology tool composed of a proprietary software application that is installed on the facilitator's computer, a wireless receiver, and hand-held infrared transmitters that have been assigned to students to record their responses to multiple choice or yes/no questions. The student transmitter resembles a television remote control. When the facilitator (such as a teacher or lecturer) asks a multiple-choice or yes/no question, the student presses a button on the handheld device that corresponds to the intended answer. All student answers are recorded and analyzed, and can be displayed on the facilitator's computer screen as an easy-to-read histogram.

Hardware & Software Suggestions for AEL in Business Schools

In the following section, two sections are presented containing suggested hardware and software **items, resources, or activities** to be used in support of AEL. Furthermore each suggestion is clarified by a short description and how each suggested item contributes to the AEL process.

Hardware

Description: Round table setting with each table providing connection to an individual or shared screen. The connections should be compatible with all current platforms for students to attach their devices to.

Why to Use: Closer in nature to real life business meeting environment, can help the educator have better control of the class as students are grouped, students have the opportunity to help and discuss with each other, enhance the social and business communications of students by having them constantly interacting in a structured manner, a sense of cooperation and unity comes amongst each other, more practical for in class group exercises.

Description: A smart interactive whiteboard where instructors can interact with dynamic multimedia content and write notes in digital ink, then save them instantly and distribute this material to students with ease.

Why to Use: This helps in making learning a visual, engaging experience for students, which helps deepen understanding and promote retention of course material. For example: <https://smarttech.com/Solutions/Higher+Education+Solutions/Products+for+higher+education/Interactive+whiteboards+and+displays/SMART+Board+interactive+whiteboards>

Description: A suitable mounted HD camera to use for video conferencing, lecture recording, presentation rerecording, etc.

Why to Use: This would greatly enhance any virtual communication used in class such as a brief interaction with a guest speaker or a Q&A session with a professional

Description: The experiential team-learning board game “Friday Night at the ER”. The game simulates the challenge of managing a hospital during a 24-hour period. Players perform distinct functions, but they come to realize that they also depend on one another. (<http://fridaynightattheer.com>)

Why to Use: The game is designed to teach systems thinking, communication, and organizational culture in addition to other disciplines. Would be an interactive and lively method to bring important business concepts into the class through gaming.

Description: The experiential learning series of hard and soft games provided by GoVenture. The company provides a series of educational computer games and simulations covering many topics such as Entrepreneurship, Accounting, Investment, Stock Market, and Personal Finance. <http://goventure.net>

Why to Use: Depending on the course, those games can provide a fun and interactive way to cover topics related to Entrepreneurship, Accounting, Investment, Stock Market, and Personal

Finance. They may also serve as ice breaking activities in the beginning of the semester to gauge general understanding.

Description: i>clicker clicker devices. i>clicker response system is the most widely used student response system in North American higher education, adopted at more than 1,100 institutions and used by more than three million students.

<https://www1.iclicker.com/middle-east/>

Why to Use: Would provide an interactive classroom response system allowing educators to poll students in class, view the results immediately, and then provide feedback. This can be used for class discussion, attendance, and testing.

Software

Description: Lynda.com which is an online education company offering thousands of video courses in software, creative, and business skills.

Why to Use: Contains a vast catalogue of business, technical, and communication tutorials that could be of great value for faculty and students. Also gives students flexibility to access great resources at their convenience.

Description: The Google Digital Marketing Course which is an initiative designed to educate students in the area of Digital Marketing. <https://www.google.com/onlinechallenge/dmc/>

Why to Use: Students get exposed to the latest digital marketing field straight from Google. Furthermore, this would encourage students to get involved in the Google Online Marketing Challenge as the skills learned in this course will help shape their advertising goals and strategy for the challenge.

Description: InVision App which provides powerful design prototyping tools to collaborate and design on web and mobile app.

<http://www.invisionapp.com>

Why to Use: This would help students understand workflows and interfaces in hands on ways.

Description: Stukent which is a Student Simulation Software for Social Media and Digital Marketing <https://www.stukent.com/>

Why to Use: Provides students and faculty an internet marketing courseware in the cloud through real-world simulations, digital textbooks, and expert mentoring sessions from proven industry professionals and much more.

Description: <https://www.google.com.sa/edu/higher-education/> for a collection of tools that can be of great values in active learning.

Why to Use: Provides students and faculty with tools for educational collaboration that would encourage the students to be more engaged.

Description: Dropbox's cloud education solutions <https://www.dropbox.com/business/education>

Why to Use: Provides students and faculty with file sharing and integrated education tools that enhances collaboration.

Description: Social Media such as a Facebook and Twitter

Why to Use: Follow individuals or institutes related to course topics. Students are encouraged to interact with the followed party and interact. Articles or specific questions can be posted for the students to review, answer, and share with others. A course related open ended topic can be posted asking students to debate their opinions. The instructor usually moderates the direction of the debate. Students can follow journalists and media outlets on social networks, gathering past and current news clips relevant to the latest classroom discussions. Those can further be discussed online. MIS students can learn valuable skills for the future by taking on a project to create an app that can be used on Facebook. Students can use the Facebook Causes App to discover, support and organize campaigns around the course related issues that impact the community. Students can collaborate and brainstorm on the course's Facebook page, which encourages those who usually don't participate in class to do so. Students can post regular journal entries to share with the class via a classroom Page or Group. Keep students prepared for exams by posting exam practice activities on Facebook. Allow study groups and group projects to easily connect with each other within their own Facebook groups. Invite old students or professionals to participate in an online discussion with the students. Use Facebook event to create an interactive calendar where outside of class events can be organized. Gauge how students think they did on exams by asking about them on the course's page, and engaging in a feedback discussion.

Description: VoiceThread lets people upload and share images, videos and documents and then have an online conversation about each other's posts through audio, video or text comments. <https://voicethread.com>

Why to Use: This would greatly help in students to know their instructors and colleagues professionally and personally which would lead to students' postings and sharing. Also would encourage for feedback in many forms.

Description: Diigo lets users bookmark Web pages from any browser or computer, and it saves them to their Diigo account in the cloud. It also allows people to annotate and highlight Web pages to assist with research. <https://www.diigo.com>

Why to Use: This can be used in students' contributions to the course, while supporting their assertions with credible, reputable research, so everything that they cite, including any Web sites or any research papers that they can link to, is bookmarked in Diigo. This helps in collaborations and teaching students to cite and backup what they contribute. Also instructors can leave little comments that are associated with the highlights.

Description: Instagram is an online social network for sharing photos and videos

Why to Use: This app can be used in marketing classes where students post pictures of marketing strategies they encounter in their daily lives. Students comment on each other's posts

and vote for the ones they like. Then, when they're back in class, students discuss the marketing strategies they have discovered.

Description: Verso app is a free service that offers a nice way to deliver flipped lessons to students and gather feedback from them. <http://versoapp.com/>

Why to Use: Would provide students with a response system and allow instructors to get different levels of feedback.

Description: Socrative response system uses cell phones and or laptops for gathering feedback from students. <http://socrative.com/>

Why to Use: Helps the instructor to assess students as learning happens through the use of real-time questioning, result aggregation, and visualization. This would also enable student collaboration in discussing answers.

Description: Echo360: Active learning platform. This platform is used by a large number of universities across the world. Website: <http://echo360.com>

Why to Use: Enables content creation, students' engagement, and performance & participation tracking.

Description: TEDEd: This website provides different tools to build lessons around any video (from YouTube or Ted.com). <http://ed.ted.com>

Why to Use: Professor can select a video and add notes, animations, and questions. Once the lesson is created and customized, it can be shared with students.

Description: Zaption: Active learning platform. <https://www.zaption.com>

Why to Use: Enable an engaging learning experience by customizing videos.

Description: Online course on use of gamification in business by the University of Pennsylvania. <https://www.coursera.org/learn/gamification>

Why to Use: A good reference to get ideas on how to introduce gamification in the classroom.

Description: Using Jeopardy Game templates for refreshing terminologies in any course. <http://infusionomics.com/lessons/year-two-lessons/high-school-lessons/h-s-optional-lessons/financial-jeopardy-game/>

Why to Use: Provides templates and ideas on how to set up a Jeopardy like gaming experience in the classroom, this would be very beneficial in refreshing key terminologies.

Description: Coursera is an educational technology company that partners with leading universities to make some of their online courses available for free. The courses are designed to be delivered as a series of short video lectures on different topics and assignments. <https://www.coursera.org/browse/business?languages=en>

Why to Use: Contains a vast catalogue of business, technical, and communication tutorials that could be of great value for faculty and students. Also gives students flexibility to access great resources at their convenience.

Description: Web Clicker System for Classroom Polling and Internet Voting. <http://webclicker.org/>

Why to Use: Would provide an interactive classroom response system allowing educators to poll students in class, view the results immediately, and then provide feedback. This can be used for class discussion, attendance, and testing.

Description: Games for Operations, Marketing, Strategy, Entrepreneurship and Innovation. <http://www.gamelabeducation.com/en/>

Why to Use: A good reference to get ideas on how to introduce gamification in the classroom to further explain Operations, Marketing, Strategy, Entrepreneurship and Innovation topics.

Description: Game for Operating Management (Senior and MBA level). <http://www.responsive.net/littlefield.html>

Why to Use: A good reference to get ideas on how to introduce gamification in the classroom to further explain operational management concept to senior and MBA students.

Description: experiential learning activities and games while teaching production and operations management. <https://web.lemoyne.edu/~wright/learn.htm>

Why to Use: A good reference to get ideas on how to introduce gamification in the classroom to further explain production and operations management.

Description: List of Great Team Building Games and tools. <https://wheniwork.com/blog/team-building-games/>

Why to Use: A good reference to get ideas on how to introduce gamification in the classroom to further encourage team building.

Description: Great activities and Ideas for Teaching Marketing. <http://www.greatideasforteachingmarketing.com/>

Why to Use: A comprehensive site that contains many ideas and activities that may be used in basic classes of marketing to better demonstrate basic theory.

Description: Online game for accounting intro. <https://www.startheregoplaces.com/>

Why to Use: An accounting information site designed for academia site that contains games that may be used in basic classes of accounting to better demonstrate basic theory.

Description: Accounting and Finance simulation. <http://goventure.net/products/accounting.html>

Why to Use: An online simulation that would help students understand concepts in accounting and finance.

Description: Business Simulation Games. <http://www.gazillionaire.com/index.php>

Why to Use: An intergalactic game of business strategy that can be used outside of a course to let students have fun while also engaging in a business that covers business strategies.

Description: Money Habitudes cards teach students about their spending habits in a way that's more fun and engaging than just doing a budget. The game-like activity also helps students understand their own money personality. <http://www.moneyhabitudes.com/>

Why to Use: A good resource to use in finance courses to let students better understand budgeting concepts.

Description: Free and premium videos on business. <https://www.skillshare.com/search?query=Business&via=homepage&sort=rating&time=all>

Why to Use: Contains a vast catalogue of business, technical, and communication tutorials that could be of great value for faculty and students. Also gives students flexibility to access great resources at their convenience.

Description: Coursera is an education platform that partners with top universities and organizations worldwide, to offer courses online for anyone to take. www.coursera.org

Why to Use: Contains a vast catalogue of business, technical, and communication tutorials that could be of great value for faculty and students. Also gives students flexibility to access great resources at their convenience.

Description: Case: Promoting active learning in introductory financial accounting through the flipped classroom design. <http://www.emeraldinsight.com/doi/full/10.1108/JARHE-01-2015-0005>

Why to Use: Good case study that might help in providing ideas to incorporate in financial accounting courses.

Description: Case Studies and Active Learning in Finance. <http://otl.du.edu/blog/case-studies-and-active-learning-in-finance/>

Why to Use: Good case study that might help in providing ideas to incorporate in financial accounting courses.

Description: 11 Active Learning Activities for your Business Class. <https://www.linkedin.com/pulse/11-active-learning-activities-your-business-class-renae-kuhl>

Why to Use: Good article that might help in providing ideas to incorporate in a variety of business courses.

Existing Resources at KFUPM for AEL

The following portion of the report is a review of the existing technologies and information resources already available to the KFUPM Community.

KFUPM ITC

KFUPM ITC has a repository of licensed some of the most popular software & solutions, that can be used by any KFUPM Faculty, staff and / or student. They have to be notified ahead of time in order to validate the number of licenses and related issues.

Adobe (Web / App Designing & Graphics)

Adobe Photoshop (graphics & design)

Adobe Fireworks (graphics & design)

Adobe Dreamweaver (web & web application development)

MS Office (Web / App Designing & Graphics)

Microsoft Office 2016 (PC & Mac)

SPSS (for Statistics & analysis)

Blackboard 9.1 (KFUPM's official learning mgmt system)

Google for Education (has very good potential in the future)

KFUPM Library

Safari Tech e-Books

ProQuest Banking Information Source

- Banks
- Banking industry
- Banking law
- Finance
- Financial institutions
- Financial services industry
- Investments

LexisNexis Academic

Updated continuously. Provides a wide variety of authoritative sources (usually with full text content), including:

- Full text of more than 350 newspapers from the U.S. and around the world, many same day of publication, including extensive archives for many titles
- More than 300 magazines and journals and over 600 newsletters
- Broadcast transcripts from the major television and radio networks as well as political transcripts covering Congressional committee hearings, press briefings

from the State, Justice, and Defense departments, and presidential news conferences

- Campus news from nearly 300 individual college/university papers
- Wire services, updated several times a day, including respected names such as the Associated Press, BusinessWire and PR Newswire
- Non-English language news sources available in Spanish, French, German, Italian and Dutch, including both newspapers and magazines

Lynda.com

- One of the best resources available today in terms of updating the KFUPM Faculty and Student community on some of the latest and popular technology courses and also there are areas such as:
- **“Teacher Tech Tips”**. This is a Weekly resource that features very useful topics such as:
 - *Four ways to use Twitter with your students - Improving Classroom Communication with Digital Citizenship*
 - *Screen Capture Tools for a Flipped Classroom*
 - *Creating an Interactive Digital Rubric*

KFUPM Deanship of Academic Affairs

“The Teaching Professor” & “Online Classroom” Newsletters: International newsletters for faculty members, for improving the art and science of better, effective, and active learning.

KFUPM Deanship of Academic Affairs

Textbook publishers are putting up online resources for course instructors and students to dynamically interact on digital content.

Textbook Online Resources

WileyPLUS (John Wiley & Sons, Inc)

WileyPLUS is a research-based online environment for effective teaching and learning. WileyPLUS builds students’ confidence because it takes the guesswork out of studying by providing a clear roadmap; what to do, how to do it, if they did it right. With WileyPLUS, students take more initiative so you’ll have a greater impact.