

Kolb's Theory on Experiential Learning: Correlations of F2F and OL Student Learning Preference for Teaching Style Adjustments and Online Professional Development

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Abstract

In terms of instructional approaches, distance learning encounters difficulties. If the pandemic persists, schools will have no choice but to improve reading abilities with a concentration on digital skills. There will be no other choice or answer except to use technology as a teaching and learning tool. As new teaching techniques and approaches emerge, it will become a more important part of the educational structure. Learning is a cyclical process in which anyone can participate at any point in the cycle; nevertheless, it must be completed in its entirety to ensure that genuine learning has occurred. Each level is interconnected, and all must be finished before accessing new information. This study revealed that observations and reflections are generated by immediate or concrete experiences. These reflections are then converted into abstract notions with action ramifications that the individual may test and play with, allowing new experiences to be created. People who learn through abstract conceptualization and active experimentation are more inventive than people who learn through actual experiences and introspective observation. As a result, the most creative convergers combine both the advantageous modes of grasping experience and change. With the aforementioned findings, it is therefore

recommended that faculty online teaching-learning approaches should be updated for effective delivery this time of pandemic.

Keywords: Experiential Learning, Learning Preference, Teaching Styles and Professional Development

Chapter 1

The Problem and Its Setting

1. Introduction

Instructors who are aware of their students' learning preferences can deliver lessons in a variety of ways that can provide the opportunities for the students to choose the best methods that suit them. Students should be taught using the teachers' strengths, and teachers should change their teaching techniques to meet their students' learning styles.

The instructors have first hand information or perceptual references on the learning preferences by analyzing classroom actions and listening to students' casual conversation. There are learning styles inventories are available to assist teachers in assessing learning preferences and they can use this information to take charge of their students' learning.

On the other hand, adjustments in virtual environment should take place to both the instructors and the students particularly this pandemic. Majority of educators across the region and around the world have scrambled to shift their practice from physical mode of instruction to virtual learning environment amidst the onslaught of the current pandemic. Consequently, this global and unexpected pandemic caused a significant gap in teacher preparation and training for urgent distance teaching which requires literacy skills in technology to ensure continuity of student learning in virtual environment.

The COVID-19 pandemic has wreaked havoc on traditional higher education institutions' course offerings. Iglesias et al. (2021) claimed that shifts from f2f teaching to flipped, blended, or online classroom differ from the changes that occurs for urgent distance

teaching, which is considered to be a undeviating transition in the delivery of instructions; hence the current situation that affects the mode of learning fosters an improbable alternative for such transition from in-person to online learning because of the pandemic.

On the other hand, it is only through technology that the academic institution can continue with their mission-vision; therefore, instructors should be comfortably abreast with technology. The virus has increased and mutated and the need for online education has grown as well. The current situation needs the technical literacy which means more than just knowledge on the use know-how of computers but with the provision on how to make the learners comfortable using digital tools as well.

Distance learning faces challenges in terms of teaching methodologies. If the pandemic continues, it leaves no choice for the educators but to enhance literacy skills that focus on digital skills. There will be no other option or solution other than making technology as the avenue for teaching and learning. It will become a more critical element of the educational structure as new teaching techniques and approaches develop (Boté-Vericad, Lowry, & Sutherland, 2021).

1.1 Theoretical Framework

Teachers should be able to recognize learning styles of their class by monitoring them in the classroom. Students begin to show their preference for various models through lectures, debates, and group tasks. It is critical for the teacher to communicate with students during the learning process in order to understand about their interests when teaching online classes. Best teaching methods usually give a varied range of learning activities in order to fulfill the needs of all sorts of learners. All learners, regardless of preferred learning styles, benefit from a variety of interactions since it helps them learn new abilities and makes them more adaptable and well-rounded.

Relatively, this research focused on Kolb's Experiential Learning Theory, which took considerations on the four well characterized learning styles or preferences as the framework of the learning cycle with four stages, identified as the training spiral. The model of Kolb is distinctively well-designed in its highest regard as it provides the channels to anticipate how the students will learn in their succeeding academic years and it offers ways to consider the different learning preferences of the individuals.

Commonly articulated, the theory on experiential learning of Kolb's shows as a four-stage continuum of learning. It integrates a cycle of learning as a core concept, from which the direct or concrete interactions which create a groundwork for comments and contemplation.

These thoughts and observations are incorporated and refined into intangible impressions forming new actions and implication that can be actively assessed.

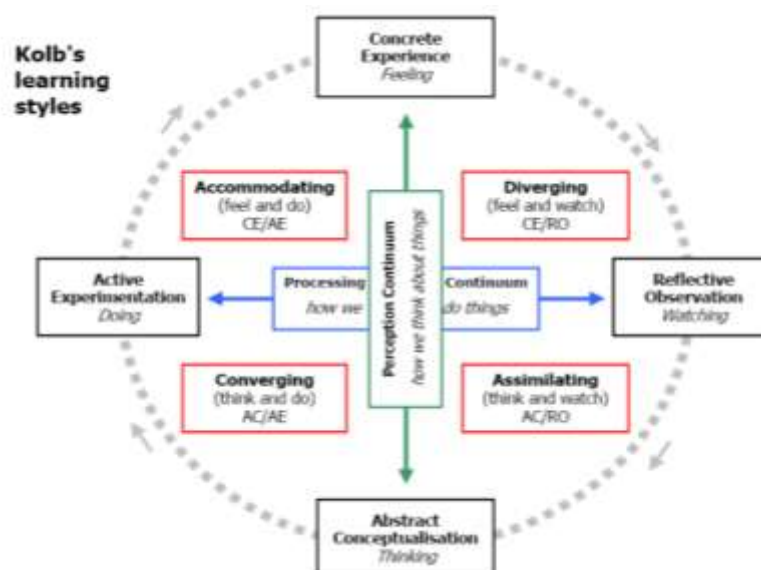


Figure 1. Kolb's Cycle of Learning Model

In a four-stage cycle, Kolb's model works on two levels: Concrete Experience (doing/having experience), Reflective Observation (reflecting/reviewing on the experience), Abstract

Conceptualization (learning/concluding from the experience), and Active Experimentation (trying/planning out what has been learned).

Alongside is his learning styles' characterization which represents a mixture of two preferred learning preferences which Kolb termed as Diverging-a combination of concrete experience and reflective observation, Assimilating learning style produces abstract conceptualization and reflective observation, Converging can yielded from abstract conceptualization and active experimentation and Accommodating will most likely produced from concredited experimentation and active experimentation taken together.

According to Kolb, this step should ideally represent a learning cycle or spiral in which the learner hits all of the bases, such as a cycle of action, experience, speaking, and contemplation but this is not always the case. Observations and reflections are caused by immediate or concrete experiences. As a result, these thoughts are digested (adapted and deciphered) into abstract ideas with action consequences.

1.2 Statement of the Problem

This study determined and assessed the students' F2F and Online learning styles of the students. Specifically, it attempted to answer the following questions:

1. How do the respondents assess their F2F and OL learning styles in terms of the following Kolb's dimensions of experiential learning theory with a four-stage cycle?

2.1 as activist -Active Experimentation

2.2 as reflector - Reflective Observation

2.3 as theorist - Abstract Conceptualization

2.4 as pragmatist - Concrete Experience

2. Is there a significant difference in the computed means of the aforementioned variables?

3. What does the difference imply to the respondents' learning preferences as described by Kolb?

- 3.1 to be diverging,
- 3.2 to be assimilating,
- 3.3 to be converging,
- 3.4 to be accommodating?

4. What teaching style adjustments for online professional development should be made during the pandemic?

1.3 Hypotheses

- There is significant relationship and difference between the theory on experiential by Kolb and the students' learning preferences.
- There is a need for teaching adjustments during the COVID 19 pandemic.

1.4 Conceptual Paradigm

The following paradigm has been conceptualized to show the study's framework.

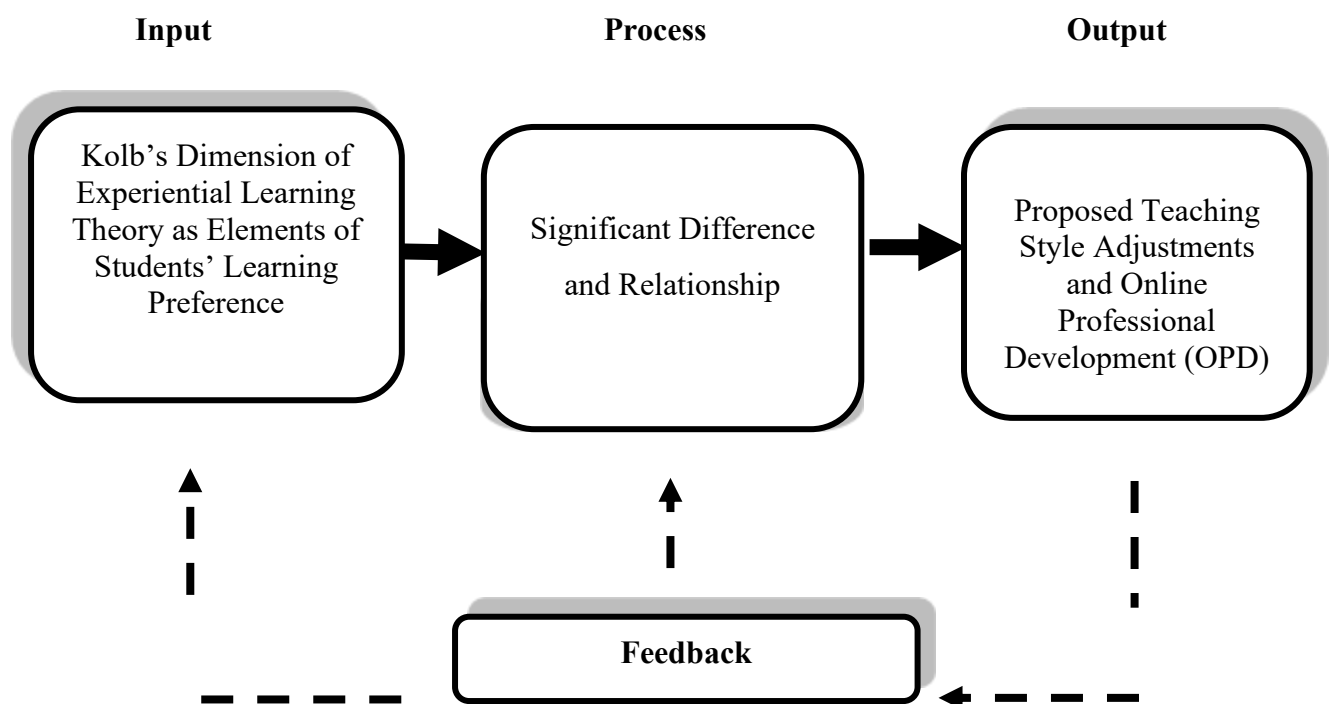


Figure 2. Kolb's Theory on Learning Styles: Correlations of F2F and OL Learning for Teaching Style Adjustments during the COVID 19 Pandemic

1.5 Scope and Limitation

This study tool a limited scope on the study preference of the students whoexperienced F2F classes in college where there was exchange of information. Body language and facial expressions could be seen and interpreted by both the speaker and the listener. They exchanged information in the same way that they exchanged information in OL classes.

1.6 Significance of Study

This study will be beneficial for all administrators of organizations in setting priorities on the areas of need and resources for commitment to deliver quality education and for faculty development this pandemic period. In addition, this study will be helpful in designing course structure particularly in preparation of lesson plans to foster a supportive virtual environment.

Chapter 2

Related Review of Literature and Studies

Literature Review

Many faculty members have been forced to move from the traditional classroom modality to online teaching as a result of the corona virus pandemic. Some instructors are successful, while others fail.

Daumiller *et al.* (2021) focused their study on the attitudes of the faculty members toward this current pandemic and explore their experiences with inter-individual variation in online teaching and learning during this unanticipated situation to elucidate inter-individual differences in online teaching and learning during this unexpected circumstance. They looked at the performance goals of 80 college instructors during the semester before they shifted to teaching using the social platforms, as well as their behaviors, burnout, and commitment during the first semester of forced online teaching. They also included 703 student

evaluations of these instructors' teaching performance. The findings divulged positive correlations of faculty learning strategy priorities. Upon discernment of this change as a constructive challenge and useful for skill growth, redesigning the course outcomes were related to learning objectives. As a result of the increased burnout and lower student ranking, avoidance goals correlated with perceived danger.

Bragg *et al.* (2021) stated that due to the COVID-19 pandemic, there has been an increase in online professional development opportunities for teachers, prompting us to wonder what the most successful methods for supporting professional development to improve teachers' content and pedagogical content knowledge to boost faculty performance as well.

These are important issues to consider when designing and delivering online professional development for teachers. There is yet to be a systematic analysis that addresses these concerns. As a result, this analysis shows a synthesis of 11 studies that explore studies with experiments and observations that examined or assessed structured OPD courses for faculty in a systematic manner. Eight of the experiments were quantitative, while three combined methodically. Further, learner supports, immediate acquisition or advancement of PCK, commitment, versatility, particularized variations in learners and learning styles, realistic learning experiences, contemplation, significance, and application of information and skills were all defined as design elements. The analysis highlights a serious issue: just a few methodologically competent papers on teacher OPD are currently available. The findings of this comprehensive investigation are focused on design aspects that help teachers create successful OPD learning environments.

This timely analysis offers a justification for design elements linked to positive OPD program results in light of COVID-19. By incorporating constructive design features into an OPD program, teachers' PCK and learner satisfaction can be improved. The lack of

methodologically sound designs in current research studies on teacher OPD is highlighted in this systematic analysis. The documentation on standardized learner services given to OPD participants was inconsistent and lacking in depth and detail.

In March 16, 2020, 74 French universities shut down their doors due to the rising global health catastrophe related to the existence of a new form of corona virus. Approximately 1.6 million students and faculty were affected. Consequently, the administration sought immediate remedies to continue delivering lessons to the students through online platforms and to maintain employability among their staff and faculty (Jacques & Lequeu 2020).

Many ideas have sprouted as a result of the use of videoconferencing apps, chat, document/tutorial/video/podcast sharing, and social media use, but no consensus has emerged, and no conventional method of performing things has been accepted by a number of instructors. Software tools like Zoom have also been questioned on credibility of data security and appropriate interference. Nonetheless, much had to be accomplished for the students to achieve the intended learning objectives for them; hence, the knowledge and skills should be developed using the platforms of these software tools. In other words-the academic competences as stipulated in the course specifications should not be compromised.

In these uncertain times-as much as possible instructors should exert efforts to make the online teaching painless for the students although there have been major concerns on assessing the effectiveness of abilities and experience learned remotely by the students.

For seminars, tutorials, practical work, and applications, Microsoft PowerPoint was used. Teams, Zoom-video conferencing, and chat tools are available to supplement tasks made available in the modern work world. To ensure equality among all students, open access tools/software/applications have been marketed and promoted, particularly in light of the digital divide. The engineering students stated in various surveys that they were fully

satisfied with the learning process, the professors, and the environment. Several awareness assessments have shown that distance learning has no effect on engineering students' progress in the same course. They did, in fact, earn local grades that were equivalent to the physical modality that is F2F classes. Results of findings in this study are not to extol the virtues of distance education, but rather to stimulate discussion and a broader understanding of the subject.

Zhang (2004) in his study considered the thought styles on its roles in university students' teaching preferences and perceptions of effective teachers. Some students from the University of Hong Kong (121 men and 134 women) conducted three self-report tests: the Thought Styles Inventory-Revised (R. J. Sternberg, R. K. Wagner, & L-F. Zhang, 2003), the Favored Thinking Styles in Teaching Inventory (L-F. Zhang, 2003c), and the Successful Instructor Inventory (R. J. Sternberg, R. K. Wagner, & L-F. Zhang, 2003). (L-F. Zhang, 2003b).

The results showed that certain thought styles predisposed students to certain teaching styles, even after controlling for sex, age, and course. Furthermore, as planned, students were receptive to a variety of teaching styles in addition to those that matched their own thinking styles. The findings also revealed that thinking styles of the students shaped their expectations of effective teachers. The study's contributions to the style literature as well as the growing body of knowledge on good teacher characteristics are discussed.

Tawafak *et al.* (2021) revealed The COVID-19 pandemic has a horrible effect on the whole planet. It has a huge influence on the educational field. Their research looked into the functions and impacts of TEL in assisting pedagogy, removing technophobia among undergraduates, conquering the pandemic, and preventing education's near-complete closure.

The undergraduate students were utilized when this research was conducted which addressed the smart learning habits of Middle Eastern countries, as well as the TEL efficacy

of Google Meet, online networking, blogging, PDF reports and presentations, and free teaching and learning apps in improving learning behaviour. According to the results, TEL characteristics promote and foster the ability to use e-learning and innovations. According to the findings, TEL adoption aided in the resolution of the global lockdown of educational institutions, which may have harmed students' job chances.

Batra and Vohra (2016) investigated a critical but little-studied antecedent of individual inventiveness: cognitive style. Individual differences in grasping and converting experiences were found to have a substantial impact on their innovativeness. Individuals who have abstract conceptualization and active experimentation as their cognitive learning styles are more likely to be inventive than those who have concrete experiences and introspective observation as their cognitive learning styles. As a result, convergers who combine both favorable modes of experience grasping and transformation are more creative.

Chapter 3

Methodology

Research Design

The descriptive approach was adopted in this investigation. It describes the current conditions or factors in a specific scenario rather than just collecting data. It also backs up the facts in terms of getting a good interpretation. This is useful for examining substantial differences in arriving sound perceptions from variables that are statistically treated.

Respondents of the Study

Considering the current pandemic, the free online tool for instrument for distribution was utilized for easy and efficient collection of data for investigation; however, it was specified that only students who experienced F2F and Online classes were taken into account.

Data Gathering Tools and Procedure

For full conduct of the study, the researcher adopted the instrument “Kolb’s Learning Style Questionnaire” which was distributed last 1st trimester 2021-2022 to the students who have experienced F2F and online classes. Tabulation and statistical treatment commenced after the collection of data.

Data Management

The Mean was utilized to determine the students’ assessments of their learning styles. Pearson Correlation Analysis was used in determining the relationship between/among the computed means of the respondents’ assessments of their experiences.

Chapter 4

Presentation of Data and Analysis

Kolb’s learning cycle is essential to improve teaching skills in any mode of instructions. Faculty invest for their professional development and utilizing the best teaching and learning for the benefit of the learners should be given paramount importance on the basis of the present pandemic. The experiential learning cycle provides an alternative to this by enabling the faculty to actively engage to the learners.

Table 1: Respondents Assessments of their F2F and OL Learning Styles

Kolb’s dimensions of experiential learning	General Mean	Rank
Active Experimentation (AE)	2.257	3
Reflective Observation (RO)	2.103	4
Abstract Conceptualization	3.891	1
Concrete Experience (CE) –	3.6	2

Table 1 above with general mean of 3.891, *Abstract Conceptualization* that ranks number 1 shows that most learners are assimilating. They can design experiment and work on assignments till its completion. Learners of this kind have a high threshold for being

independent. Followed by *Concrete Experience* with general mean of 3.6, these learners enjoy being involved with the learning process rather than merely watching. On the other hand, learners in *Active Experimentation* with general mean of 2.257 categorizes learners to subscribe to theories prior to problem solving and decision making. The least dimension- *Reflective Observation* with the general mean of 2.103 makes a description of the learners to be keen and watchful of others or to observe based from own experience. Kolb's theory states that learning is cyclical; anyone can join at any point during the cycle. However, to ensure that meaningful learning has occurred, the cycle should be completed in its entirety. Each stage is interconnected, and all must be finished in order to gain new knowledge

Table 2: Significant Difference

		Mean	Sig. (2-tailed)	Description
Pair 1	concrete - abstract	-.33700	.039	There is significant difference
Pair 2	concrete - reflective	1.45100	.000	There is significant difference
Pair 3	abstract - reflective	1.78800	.000	There is significant difference
Pair 4	abstract - active	1.63400	.000	There is significant difference

Table 2 above shows significant difference of all the variables in pairs. According to Kolb, this process ideally (but not always) depicts a learning cycle or spiral in which the learner 'touches all the bases, that is a cycle of experiencing, reflecting, thinking, and doing. Observations and reflections are triggered by immediate or concrete events. These reflections are subsequently assimilated into abstract notions with action consequences that the person can test and play with, allowing for the formation of new experiences.

3. Implication of Difference and to the Learning Preferences as Described by Kolb

All the variables show significant difference. They exhibit the grounds to belong to one category dimension: concrete-abstract reveals that learners in this category are

accommodating; concrete-reflective are diverging; abstract reflective to be assimilating and-active to be converging. Batra and Vohra (2016) had the same observation when they looked into a critical but little-studied antecedent of individual inventiveness: cognitive style. Individual differences in how they grasp and convert events were discovered to have a significant impact on their originality. Individuals with abstract conceptualization and active experimentation cognitive learning styles are more likely to be inventive than those with concrete experiences and reflective observation cognitive learning styles.

As a result, convergers who combine both the advantageous modes of experience grasping and transformation are the most likely to be inventive.

4. Teaching style adjustments for online professional development

With reference to table 1 and the noted significant difference of the learning dimensions considering the current instruction modality, teachers should be equipped and adept in all online academic platforms for effective delivery of lessons. The challenges in virtual environment have turned the academic world with a sphere of reformatted curricula; hence, faculty online professional development should be updated as well. They should be innovative like the learners who are superb in actual conceptualization. Teaching-learning planning should be designed in the manner as shown in the ranks of the experiential learning.

According to Jacques and Lequeu (2020), the pandemic's onslaught has prompted academic institutions to seek fast solutions in order to continue giving lessons to students via online platforms and retain employability among their personnel and professors.

Chapter 5

Conclusion and Recommendations

Conclusion

1. Learning is a cyclical process that anyone can engage at any point during the cycle; nevertheless, it must be completed in its whole to ensure that actual learning has taken

place. Each level is interrelated, and all must be completed before new information can be gained.

2. Observations and reflections are elicited by immediate or concrete events. These reflections are then transformed into abstract concepts with action repercussions that the individual can test and play with, enabling for the production of new experiences.
3. Individuals who learn through abstract conceptualization and active experimentation are more likely to be imaginative than those who learn through actual experiences and introspective observation. As a result, the most inventive convergers incorporate both the beneficial modes of experience grasping and change.
4. The academic world has become a domain of reformatted curricula as a result of the issues in the virtual environment. Faculty online professional development should be updated as well. They should be creative in the same way that students who excel at actual conceptualization are. The planning of teaching-learning activities should be done in the same way as the ranks of experiential learning are organized.

Recommendation

1. The faculty should determine the goals for the course that clarify the students' outcome. Learning outcomes are defined by learning objectives, which help teachers focus their instruction.
2. The faculty should design instruments for identifying the observable and measurable skills of the students. They should align every activity in the course with the learning objectives.
3. The faculty should develop teaching methods and tools which are technology assisted. They should enhance the diverse range of learning preferences.
4. The faculty should integrate online technologies in teaching; hence they should be basically trained and get familiar with online instruction platforms. Training should

begin with a single tool or method and progress over time as teachers adjust to their new surroundings.

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