COGNITIVE DISCOURSES

INTERNATIONAL MULTIDISCIPLINARY JOURNAL

ISSN 2321-1075 ISSN 2347-5692

VOLUME 13 ISSUE 1 JULY 2025

cdimj.naspublishers.com

Published Since 2013

COGNITIVE DISCOURSES
International Multidisciplinary Journal
pISSN 2321-1075 eISSN 2347-5692

Volume 13, Issue 1, July 2025

Student-Centric Experiential Learning for Developing Critical and Creative Thinking Skills through Thinking Strategies

Ms. Mahalakshmi Anand
Research Student, MES-Pillai College of Education & Research

Dr. Reni Francis
Principal, MES-Pillai College of Education & Research

Abstract

The present study experimentally investigated the effect of experiential learning in enhancing the critical thinking skills of young learners. In this experiment, students in Grades 5 and 6 were provided with opportunities to collaborate during various tasks within their learning cycles across multiple disciplines. The study aimed to equip these learners with thinking strategies and structured templates to make their learning processes more effective and meaningful. The researcher introduced learners to a variety of templates that defined individual roles in experiential activities, thereby promoting both accountability and active participation. Across all exercises, the foundational principles of experiential learning served as the guiding framework.

Furthermore, the study was grounded in the principles of **student-centered learning** and **personalization**, recognizing that each learner brings unique interests, prior knowledge, and learning preferences to the educational process. Learning experiences were carefully crafted to enable learners to access their concepts and skills in their own unique ways. Through differentiated processes and resources to support, the learning catered to students' readiness and abilities, thus making learning more meaningful and relevant to every learner. This study also aimed to create an equitable environment that not only fostered critical thinking but also nurtured autonomy, collaboration, and a sustained approach toward lifelong learning.

Keywords: Thinking strategies, experiential learning

Introduction

Education should enable our learners to think better. They should evolve better skills to deal with issues and problems in unfamiliar situations. If they are only able to rearrange their prejudices, they are no better than where they started. A good pedagogy must lead students to think rationally, disagree politely, evaluate objectively to make better, more informed decisions and choices. The new age schooling has opened up opportunities for teachers to integrate best practices from various curricula and pedagogy, to provide the best learning experiences to their learners. Educators even in the most rural environments are beginning to understand the significance of relating learning to real life needs and skills required to meet these.

According to **Steve Jobs,** "Simple can be harder than complex: you have to work hard to get your thinking clean to make it simple. But it's worth it in the end because once you get there, you can move mountains." Educators call this Metacognition, the process of 'thinking about thinking'. All these clearly point towards the importance of teaching learners to think – inculcate in them Critical Thinking skills through every learning experience in their learning cycle.

In order to understand the relationship between experiential learning and critical thinking skills, let us first revisit the main components of Experiential Learning.

"*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, para. 2).*

In their book, *Teaching for Experiential Learning,* Wurdinger and Carlson (2010) have clearly expressed how important it is for students to engage "in the learning process through discussion, group work, hands-on participation, and applying information outside the classroom"(p.2).

The following is a list of experiential learning principles as noted from the (Association for Experiential Education, 2011, para 4):

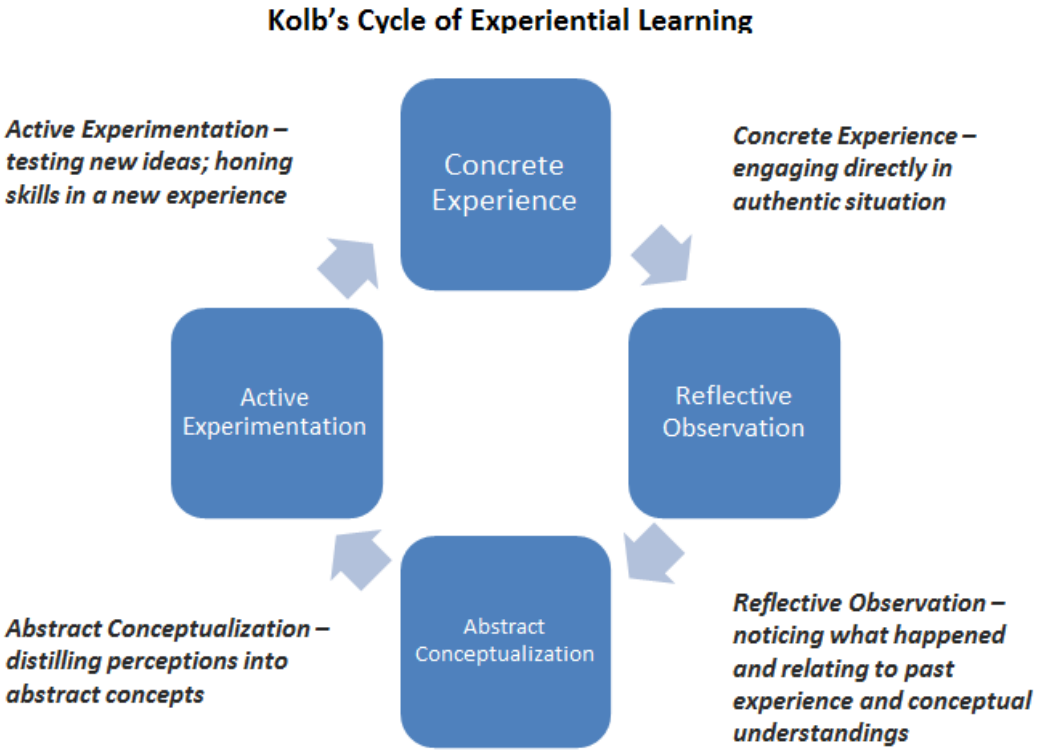
- Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis.
- Experiences are structured to require the student to take initiative, make decisions and be accountable for results.
- Throughout the experiential learning process, the student 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, ensuring 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.

"Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38)

Kolb's experiential learning style theory is typically represented by a four-stage learning cycle in which the learner 'touches all the bases':



1. Concrete Experience - the learner encounters a concrete experience. This might be a new experience or situation, or a reinterpretation of existing experience in the light of new concepts.

2. Reflective Observation of the New Experience - the learner reflects on the new experience in the light of their existing knowledge. Of particular importance are any inconsistencies between experience and understanding.

3. Abstract Conceptualization - reflection gives rise to a new idea, or a modification of an existing abstract concept (the person has learned from their experience).

4. Active Experimentation - the newly created or modified concepts give rise to experimentation. The learner applies their idea(s) to the world around them to see what happens

All of this clearly indicates the high level of cognition required to make the learning a fruitful experience. This in turn highlights the facilitators role in providing opportunities for thinking, posing the right questions that allow deeper thinking, leading them through the maze of experiences to the desired learning outcome by subtly nudging in the right direction rather than pouring out knowledge or information as they deem fit.

Definition of Thinking Strategies

It is a classroom approach where learners actively participate in building knowledge using specific templates and tools, applying their knowledge in response to learning opportunities provided by their teacher. Students will further enhance their understanding to achieve Higher Order Thinking Skills. They will be able to share their thinking process to arrive at the solutions they come up with as evidence.

Benefits of using Thinking Strategies

1. Setting the stage for guided thinking routines.
2. Templates and other tools like rubrics and checklists to promote learners' engagement in their own learning and scaffold effective learning practices.
3. Provide learners ample opportunities for students to pause, reflect and move at their pace to make their learning productive.

4. Provide opportunities for collaborating, problem-solving, decision making and creativity.
5. Provide learners tools for improved Communication Skills. E.g. Question stems, questionnaires, response stems, etc. to guide independent inquiry and helping them frame better responses while presenting their thoughts.
6. Provide visual depiction of thinking process for peer evaluation and self-evaluation that in turn could lead to improved thinking and better solutions.
7. Enhancing learners' ownership and role in their own learning.

Some insightful ideas that reinforced the role of thinking routines in learners' active participation came from the following studies as well.

According to a paper presented by **Majida "Mohammed Yousef" Dajani** Al-Quds Open University and Al-Eman Schools Titled: Using Thinking Routines as a Pedagogy for Teaching English as a Second Language in Palestine,

This study examined the results of promoting Palestinian students' engagement and fostering their understanding in addition to their inquiry skills through the application of thinking routines. The researcher videotaped a number of classes, collected and discussed teachers' and students' reflections, and analyzed classroom observation reports. During the data collection process, the researcher depicted and narrated common themes and issues retrieved from the different sources that were used to collect data. Results revealed that the implementation of visible thinking routines in English language classrooms was a challenge for both the learners and the teachers.

According to another study conducted by Gonny Schellings, - Applying learning strategy questionnaires: problems and possibilities

Received: 25 March 2010 / Accepted: 24 January 2011 /

Published online: 16 February 2011

This article discusses measuring learning strategies by means of questionnaires. In 'multi-method' research, in which think-aloud measures are compared with questionnaires, low or moderate correlations are found. A conclusion often drawn is that learners are not able to verbally report on their learning activities. Alternative explanations concern two other possibilities: first, that different learning strategies may be measured by the two methods; second, that the measuring methods may be aimed at different learning tasks. Keeping these prerequisites in mind, we constructed a task-specific questionnaire directly based on a taxonomy for coding think-aloud protocols in text studying. A case-study, in which four students answered the questionnaire while thinking aloud, led to new insights into why a questionnaire may lead to somewhat different ratings of activities than the think-aloud method. Based on these results, task-specific questionnaires may be improved. The studies involved a fair comparison between a questionnaire and think-aloud protocols. It may be concluded that if task-specific questionnaires are meticulously constructed and examined in new ways, they might become reasonably adequate alternatives for the labor-intensive think-aloud method in measuring learners' learning strategies.

How can we improve practices of thinking in our young learners? How can we provide them the necessary tools and skills to use when they are posed with a problem? How do we equip our learners to collaborate with other members in the project so meaningful discussions happen and they can work towards resolving problems and issues more effectively?

To do this, we studied the effectiveness of using thinking tools and strategies in young learners as a part of their learning in upper primary. In this study, students of grade 5 and 6 were led through an inquiry into their own learning cycle, with an aim to improve their learning experiences and make them better and more confident learners. We shall take you through the steps of experiential learning in the context of a unit from the International Primary Curriculum.

Step 1: Experiencing / Exploring (Doing):

Teachers created a gloomy and messy environment in the class, with seating spaces cluttered, blinds drawn, lights partially switched off and turning down the AC to really cold temperatures. They were already tired and famished after their swimming lesson. When they arrived in their class, they were asked to design a piece of furniture using waste materials.

Though the task was extremely interesting, students were not able to focus on the task in hand. Students soon started feeling uneasy, restless and distracted. They were irritable and cranky with their peers.

Step 2: Sharing / Reflecting (What happened)

The next day they were given the exact same task in a better classroom setting, at the start of the day. They were provided with specific templates for planning, drafting, and presenting their finished product. They were also given a rubric to assess group work, and a checklist for the process. The students completed the task and came up with some remarkable pieces of furniture using old cartons. Students shared their designs and their experience of working together.

Step 3: Processing / Analysing (What's important)

Students brainstormed and drew up a list of instances where they could not learn as well. They delved into reasons for what prevented them from learning, and also came up with their own strategies to deal with these situations. They also reflected on some of their best learning experiences.

Step 4: Generalising (So what)

All the reflections and discussions were put on a big chart paper for every learner to see. This helped them arrive at a ready reckoner on how to prepare yourself and your environment to enable better learning. Students made their own reflections on what works for them.

Step 5: Application (Now what)

Students created their own learning journal to write down their reflections. They created spaces to note what was important to them. Habit trackers, motivational quotes, Must-try - ideas, all became part of the journal. In addition to this, the teacher also provided them with a list of questions that would lead them through the reflection process. This could soon be internalised from repeated practice.

An interesting part of this exercise was that students identified graphic organisers that helped them structure their thinking. They used the statements / stems provided by the teachers to support them to express their thoughts. They used technology to scaffold their learning and peer-support to encourage and motivate, and critically evaluate their ideas.

This probably gave Experiential Learning a new dimension, where the task of making furniture was just a medium to get students to think about their thinking, and learn how to learn better.

This exercise was further extended into other areas as well - in Service Learning where our IB students mentored the little ones as their Reading buddies, or taught computer skills to support staff; Business Enterprise students ran their own enterprises; internships of IB and IGCSE students in related fields, etc.

Though the success rate varied across the different areas, one thing that clearly helped our students think and execute better were the templates that they used as learners to plan their work, to brainstorm and draw conclusions, the templates to evaluate various options, the question stems that lead their responses, the rubrics and checklists that reminded them of the calibre / quality - these guided them and kept them on track.

Every learning experience should begin with these 3 questions

- What are you doing?

- Why are you doing it?
- What does this help you do that's important?

Conclusion

In conclusion, experiential learning serves as a powerful approach for cultivating and enhancing learners' critical thinking skills. The facilitator plays a central role in this process by carefully designing learning experiences that incorporate purposeful questioning, provide appropriate cognitive tools and structured thinking templates, and utilize rubrics and checklists for meaningful evaluation. Equally vital are intentional strategies that promote reflection, ensuring that learning remains both authentic and transformative.

When grounded in the principles of **student-centered learning**, experiential education shifts the focus from teacher-directed instruction to active learner engagement. It recognizes learners' unique interests, prior experiences, and readiness levels as essential elements in shaping the learning process. Through **personalized learning pathways**, students are empowered to take ownership of their learning, set meaningful goals, and pursue inquiry that aligns with their individual strengths and aspirations.

Moreover, the integration of thinking routines—systematic and consciously practiced patterns of thought—enables learners to internalize cognitive processes that foster independent inquiry. Through consistent reinforcement, these routines develop enduring habits of mind that empower students to become self-directed and lifelong learners. Ultimately, experiential learning, when combined with student-centered and personalized approaches, not only deepens understanding but also equips learners with the intellectual dispositions and adaptive skills essential for sustained learning and growth throughout life.

References

International Journal of Scientific & Technology Research. (2019). Characteristics of experiential learning. International Journal of Scientific & Technology Research, 8(10). ISSN 2277-8616.

McLeod, S. A. (2017, October 24). Kolb – learning styles. Simply Psychology. https://www.simplypsychology.org/learning-kolb.html

Northern Illinois University Center for Innovative Teaching and Learning. (2012). Experiential learning. https://www.niu.edu/citl/resources/guides/instructional-guide/experiential-learning.shtml