

## IMPACT OF LEARNING DESIGN ON LEARNER EMPOWERMENT OF STUDENT TEACHERS : A MIXED METHOD STUDY

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### Introduction:

The shift from teaching to learning and from teacher to learner. can make a difference in creating an a culture of developing empowering education. When the learner can believe that they can make a difference to their learning and not passively just reiterate blindly what is given then focus is on the learner not as a consumer but a generator of knowledge, then the learner can be said to be empowered. Empowerment is a process as well as a product.

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Even in 21<sup>st</sup> century with teachers following the way they were taught and generally from the 20<sup>th</sup> century educational scenario still in the shadow of the 19<sup>th</sup> century ideology of Education 1.0, it is difficult to prepare a generation of empowered learners of tomorrow.

This research paper focuses on understanding how learning capacity is connected to the empowerment of the learner.

The process of empowerment presents a series of learning experiences which can lead to making connections between the objectives how to achieve the goals, Zimmerman (1995) set by the learner in collaboration with the teacher and the peers.

There is a need to create empowering settings, which can provide opportunities for setting goals, sifting information through critical thinking, making sense of the learning content, developing competencies to complete the learning tasks and participation in important tasks (Zimmerman, 1995)

A quasi experiment was conducted with single group design pre test, post test to understand the effect of learning design on the learner empowerment.

### Review of Related Literature:

Some prominent research study stresses on learner empowerment and different learning strategies. These reviews helped the researcher to frame the research methodology and learning designs for empowering student teachers. Yujing (2015) Yujing's study investigated how flipped classrooms affect student empowerment in English writing courses in China. Using a quasi-experimental design, the results showed that students in flipped classrooms felt more empowered compared to those in traditional classes. The structured questionnaire based on the Learner Empowerment Scale (LES) confirmed significant differences between the two groups. Flipped classrooms enhanced students' higher-order skills and their perception of the value of their work, leading to

increased empowerment. Future research could include interviews and class observations for more comprehensive findings.

Anini et al. (2014) Anini and colleagues examined the link between empowerment and organizational learning among physical education teachers using a correlational method. Out of 512 teachers, 220 were randomly selected for the study. Descriptive and inferential statistics revealed a strong positive relationship between empowerment and organizational learning. Key predictors included the sense of effectiveness, competency, and significance. Increasing these aspects of empowerment can enhance organizational learning.

Zraa, Kavanagh, and Melissa Johnson Morgan (2013) This study explored how first-year accounting students' perceptions of empowerment were affected by cooperative learning versus traditional instruction. Surveying 279 students in Libya, it found that those in cooperative learning settings felt more empowered and achieved higher exam scores compared to those in traditional classes. The study suggests that teaching methods can significantly influence students' empowerment and improve their critical thinking, problem-solving, and technical skills.

Mishra and Bhaskar (2010) Mishra and Bhaskar investigated whether empowerment is crucial for enhancing organizational learning. Using a mixed-method approach with surveys and interviews of IT executives, they found that only decision-making empowerment was a significant predictor of organizational learning, while power-sharing and people-valuing dimensions were not. No significant difference was noted between high and low learning organizations regarding their empowerment patterns. Future research could explore this in different regions and sectors.

Klopfers Barbara (2003) Barbara's research on online and self-directed learning highlighted the importance of fostering self-directed learning skills in both classroom and online settings. She emphasized that while content knowledge is vital, teaching students how to learn and reflect on their learning processes is crucial for empowering them. Educators should facilitate this by promoting student involvement and autonomy, thereby helping learners become lifelong, self-directed learners.

Frynier, Shulman, and Houser (1996) Frynier, Shulman, and Houser developed and refined the Learner Empowerment Scale through two studies. They found that students rarely had opportunities to exercise choice in the classroom. Their research showed that empowerment, especially its meaningfulness dimension, correlated strongly with state motivation rather than trait motivation. This indicates that increased learner empowerment positively affects learning. The dimensions of empowerment were all positively correlated with each other.

Thus, the reflection of these reviews encouraged the involvement of students in empowering their through different learning situations and designs.

#### **Research Questions:**

1. What are the factors that help the learner to be empowered?
2. How does a learning design help a learner to enhance the level of empowerment?

#### **Aim of the Study:**

To study the impact of Learning design on Learner Empowerment of student teachers

**Objectives:**

1. To develop a learning design that can promote learner empowerment
2. To study the impact of the learning design on the learner empowerment of student teachers.

**Hypothesis:**

The Null Hypothesis stated that there no difference between the mean scores of pre-test and post test of learner empowerment of the group.

**Conceptual Framework Definitions:**

**Learning Design:**

The learning design specifies the teaching and learning process, along with the conditions under which it occurs, and the activities performed by the teachers and learners in order to achieve the required learning objectives, Conole, G., Dyke, et al, (2004), through design of innovative interventions (Reeves, 2006).

The learning design consists of tasks that can engage students in active, constructive, intentional, authentic and cooperative activities, Jonassen et al. (2008).

Learner-centered Design is a learner-centred design approach that enables 'teachers/designers to make more informed decisions in how they go about designing learning activities and interventions, which is pedagogically informed and makes effective use of appropriate resources and technologies' (Conole, 2013, p.7).

**Learner Empowerment:**

Empowerment of learner as identified by Thomas and Velthouse (1990) a process whereby the learners feel intrinsically motivated to make an impact, feel competent to accomplish a task, have a choice of learning tasks which indicates responsibility and ownership of actions and meaningfulness of the tasks at hand.

**Operational Defintions: Learning Design** for this study is defined as a teaching learning process which has its process and framework with learning tasks. It has its learning map, with objectives aligning with the assignments and tasks. The learning design is a tool that is integrated in the teaching of the module of the course iso that the learner navigates through the course content.

**Learner empowerment** for this study is defined as learners' perception of their learning with setting their goals, making learning meaningful, choosing the study resources, determining to complete the tasks and working towards making an impact.

**Model of Learning Design:**

Learning Design for Student Teacher followed the 6 C areas.

The learning design process was developed by the researcher keeping in mind the learning

Learning design refers to the process of creating educational experiences and materials to facilitate effective learning. It's a structured approach that involves planning, creating, and implementing learning activities and resources to achieve specific learning outcomes. The goal of learning design is to ensure that learners acquire the necessary knowledge and skills for developing learner empowerment.

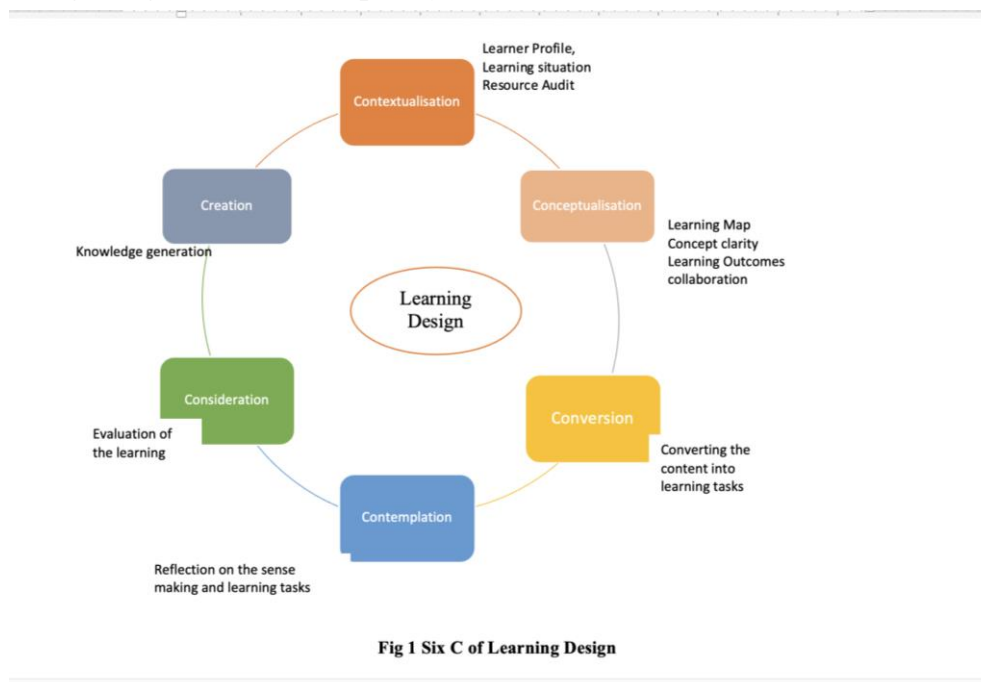
The learning design are developed initiating gap analysis and evaluation feedback. The steps are

1. Contextualisation
2. Conceptualisation
3. Conversion
4. Contemplation
5. Consideration

**Creation:**

The Learning Design developed by the researcher was based on theories of empowerment of Thomas and Velthouse based on the dimensions of choice, meaningfulness, determination and Impact.

**Stages of Learning Design – Six C developed by the researcher.**



**Variables:**

Independent Variable – Learning Designs

Dependent Variable – Learner empowerment

**Research Methodology:**

A quasi-experiment method was used with single group pre-test and post-test was used. Non-random, convenient sample was used.

	Pre-test	Intervention	Post-test
Single Group	0	Learning Design	0

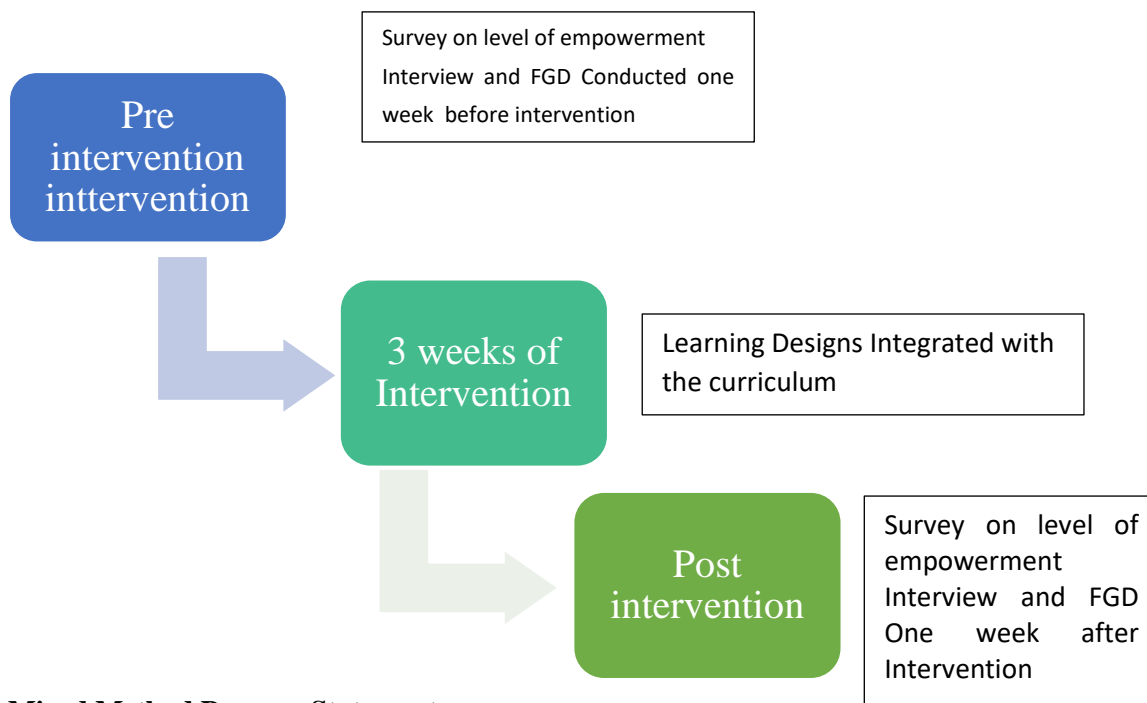
### Sample and Sampling:

The sampling technique was purposive and non-random.

48 student teachers were purposively selected for the quantitative research study. There were 15 student teachers selected for qualitatively selected.

The sample was from a College of Education, with English Medium. Out of 48 student teachers, 2 male students and 46 were girl student teachers.

### Research Design:



### Mixed Method Purpose Statement:

A concurrent study with an intent of gathering both qualitative and quantitative data and merging them to best understand a research problem is proposed by the researcher for the present study.

The intent of this concurrent mixed method study is to develop Learning Design for student teachers. In this study, Learner Empowerment Scale will be used to study the impact of Learning design on developing empowerment skills of the pre-service students.

At the same time, the learner empowerment will be explored using Focused Group Interviews, Reflective Journal Writing and structured interviews.

The reason for combining both quantitative and qualitative data is to better understand this research problem by converging both the numerical trends and detailed views data.

Thus, a concurrent mixed method has been used for this study. Both the data quantitative as well as qualitative was collected at the same time. The triangulation of numerical survey and in-depth investigation of the topic helps in more accurately defining relationships between the variables.

Triangulation is used to reduce the influence of the bias or chance association, as generally faced by only one method of research.

**Data Collection Tools:**

**Quantitative Data Collection Tool:**

For this research The Learner Empowerment Scale was used Learner Empowerment Scale by Frymier and Shulman with reliability of 0.90, with its dimensions of choice, meaningfulness, competence and impact, based on learner empowerment conceptual understanding given by Thomas and Velthouse (1990) and Spritzer (1996). Some of the items from the scale were

1. The tasks required in my class are personally meaningful.
2. I like to talk about what I’m doing in class with friends or family.
3. I feel intimidated by what is required of me in my class.
4. I can make an impact on the way things are run in my class.
5. My teacher allows flexibility *in the way I perform my tasks*.

The five-point Likert Scale was used – Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree

**Qualitative Data Collection Tool:**

1. Semi-structured Interview
2. Focused Group Discussion
3. Reflective Journal Writing

**Methodology for Integrating Mixed Method Results:**

1. Concurrent Mixed Method using tools of the quantitative and qualitative research are conducted independently, and for overall interpretation their results are brought together. Concurrent designs are effective when seeking to triangulate data to determine and demonstrate congruence between
2. The quantitative data was analysed with
3. T -test
4. The qualitative data was analysed with
5. Open Coding, Axial Coding
6. Thematic Analysis

**Research Study Analysis:**

Pre Learner Empowerment Experiment	48	85.7	6.53	6.0	p<0.01
Post Learner Empowerment Experiment	48	97.68	4.92		

df= 49

The Pre Learner Empowerment Experiment group had lower values (M = 85.7, SD = 6.53) than the Post Learner Empowerment Experiment group (M = 97.68, SD = 4.92). A t-test scores showed that this difference

was statistically significant,  $t(49) = 6.0$ . The obtained  $t$  value (6.0) is higher than the tabulated at 0.01 level. The  $t$ -test result was therefore significant for the present data and the null hypothesis was rejected.

#### **Findings:**

The research showed that there is a difference between the mean score of pre-learner empowerment and post learner empowerment and it is significant at 0.01 level.

#### **Discussion:**

The difference between the scores could be because the learning design which was an intervention for the experiment group, was designed that the learner finds what is their context, why are they learning, what is their strength and weakness. The learning map also encouraged students to have a choice of what they have to do, the understanding of the outcomes and the objectives.

There is transfer of power from teacher to student after the intervention. The students were no longer passive recipient of learning, but through the Learning Design, the learner was engaged in the activities like Problem-solving, seminar presentation, reflective writing, role play. There was an element of ownership which was not felt before by the students. They felt they could see the learning tasks conducted by them was connected to the real world and could connect to the classroom teaching, which made them feel competent. This is supported by Chickering and Gramson 1987, and Adler 1982.

The Learning Design presented by the researcher consisted of the learning tasks that were clear with learning outcomes and road map to achieve those objectives, it developed amongst the students a sense of meaningfulness of the topic, that they had created. They feel that their learning will contribute to the class interactions and generating knowledge.

The students wrote in their reflective journal about what they learnt and how they can use this learning in their understanding of the concepts, and created usable learning. This was corroborated in the research studies of Bain et al (2002), Langer(2002) and Thoupe (2004).

The contextualisation helped the students to connect to their life. They could see a significant value of their tasks. The learning tasks promoted sense-making as well as critical thinking, expressing their opinions in the class without feeling endullled as all students were given opportunity to present it their own way.

The Qualitative data analysis supported the quantitative data. The analysis of the interview, the Focussed Group discussion showed that the students were habituated and conditioned to be passive in the class, follow what the teachers explained, make notes and repeat it in the exams.

But after the expericne of the Learning Design

*I felt that I have to get good marks in exams is my objective, but now I feel I am able to connect to my learning in a better way.*

*After I complete a learning task which allows me flexibility I have ability to progress.*

The best thing is that of framing the roadmap for what I will achieve at the end of the class, and in the unit.



Variables	N	Code	Themes	Some examples of interview extracts used for coding
Pre Learner Empowerment	15	Teacher support needed	Agency of control	<p>I am used to teachers teaching and don't like to answer the questions asked</p> <p>My aim is to get good marks in exam</p> <p>I feel what I study will not be useful in real world, I study to get marks.</p> <p>I feel teacher can teach and give notes and then I will learn</p>
Post Learner Empowerment Experiment	15	Learner resourcefulness	Agency of control	<p>I started making flow charts, drawing metaphors.'</p> <p>'The teacher kept encouraging us to ask why and how questions for every concept.'</p> <p>The writing in reflective journal was important as it helped me to discover my abilities of understanding</p>

Thus, the analysis of both quantitative and qualitative data showed that the intervention of well structured Learning design for one module helped the students to discover the learner in themselves, but previously who studied only when exams were approaching. The students are generally feeling that attending the class passively and showing respect to the teachers, repeating the notes in the exams was learning.

There is a need for teachers to explain to the students how this learning designs is with the students as the center, and the learning is owned by the learners when they connect to the learning by setting their learning goals, exploring learning resources and reflecting of the impact of their learning.

**Conclusion:**

The conditioning of learned helplessness and dependency on the teachers can be overcome with the help of learner empowering strategies which help the learners to own their learning. For further research two group – control and experimental research design can be adopted.

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