

*Original Research Article*

**SERVICE LEARNING EXPERIENCE AIDS CRITICAL THINKING THROUGH LEV VYGOTSKY'S  
SOCIO CULTURAL THEORY**

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**Abstract:**

*Aim of education is to create citizens who are humane, concerned and caring about people at local and global level. Service learning is a teaching and learning strategy that differs from community service where the provider of the service (community center) and the recipient of the service (pre service teacher) both benefit from the service learning experience. Service learning experience results in academic gains and connections of the course to real life situations. It also results in personal gains and improvement of life skills which help to create civic minded and socially responsible citizen with an intention to indulge in lifelong engagement. The study also has tried to integrate Lev Vygotsky theory of socio cultural theory. The integration of service learning with critical thinking is presented through the two dimension of Lev Vyotsky's theory of zone of proximal development and more knowledgeable other. The present study aims to understand the relationship between critical thinking and service learning among pre service teachers. The sample for the study consisted of 1054 pre service teachers of aided and unaided institutes of Mumbai. The findings of the study revealed that there existed no relationship between critical thinking and service learning among pre service teachers.*

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**Introduction:**

The objective of learning is to enhance knowledge and broaden one's outlook towards life. This implies that learning should be made meaningful for a learner to learn. Meaningful learning creates creative, critical learners with good decision and problem solving skills. According to Justice Verma Commission Report learning is meaningful when knowledge can be used with fluency to make sense of the world to solve problems and make decisions in a manner that would be beneficial and useful to the society. This requires that learning should be such which develops higher learning skills among students. The 2030 sustainable development goals highlight and stress the importance of critical thinking skills. UNESCO also describes critical thinking as important life skills. Critical thinking is important in different aspects of life to help students solve the different issues in the world. Critical thinking skills require the creation of situations that enables them to think with a critical framework. A better strategy for teaching students to think critically is to get them involved in the community. Critical thinking is important throughout our life span. If we want our future generation to become critical thinkers it is very essential that pre service teachers are also trained in critical thinking. The skill of critical thinking can be developed through an experiential form of the service learning experience.

### **Service Learning**

Service learning is an integration of community service with structured learning activities. Students perform community service in community settings which is related to their course or curriculum (Wang & Rodgers ,2006). A Service-learning programs is different from other forms of community service as in a service learning experience the provider of the service (community center) and the recipient of the service (pre service teachers) both benefit from the service learning experience.

### **Critical Thinking**

According to the Vedic approach engagement in critical thinking lead to decisions and actions that are implemented only after sufficient gathering of the necessary facts. Along with gathering of facts it is also important to act on these facts by analyzing and synthesizing. This process of decision to analysis and synthesis helps in making the best and having a life full of quality. A critical thinker would engage in curiosity, reflection, introspection and analytical thinking. In today's society, it is crucial that each citizen of the world employs his or her ability to think critically in order to improve the lives of people all over the world. There exist different notions to the definition of critical thinking. Critical thinking in simple terms means the ability to evaluate, infer, deduce, interpret, reflect, use metacognition and recognize assumptions. It is now feasible to ask the following questions in any realm of human mind,

and in any use of reasoning within any domain on the following basis

- “ends and objectives,
- the status and wording of questions,
- the sources of information and fact,
- the method and quality of information collection,
- the mode of judgment and reasoning used,
- the concepts that make that reasoning possible,
- the assumptions that underlie concepts in use,
- the implications that follow from their use, and
- the point of view or frame of reference within which reasoning takes place.”

### **Critical thinking development as an Outcome through Service learning experience**

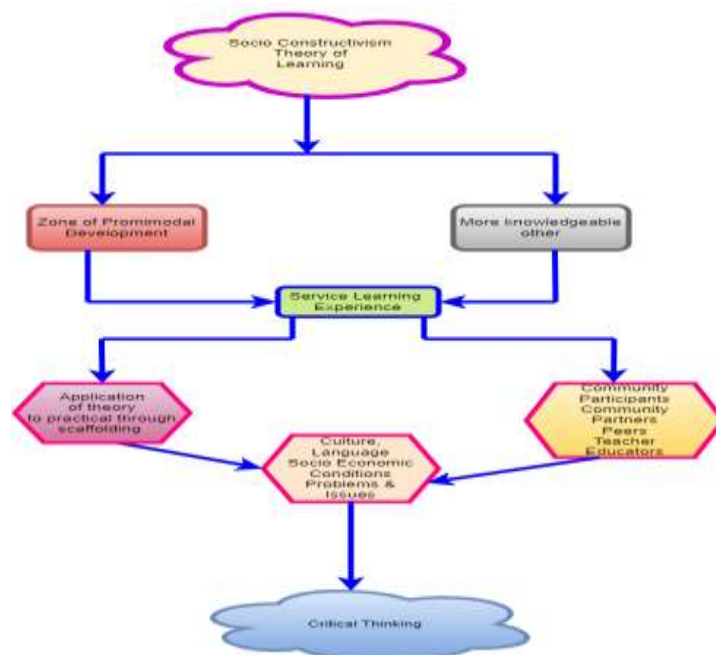
Life skills could be one of the outcomes of service learning. Research shows that there exist numerous benefits or outcomes in a learner through the service learning experience. (Yoder, 2006) in their study found that service learning results in long lasting and deep learning among students. Through service learning students also showed an increase interest in the subject matter Service learning also results in self discovery of one self. Self knowledge is one of the most important learning outcomes of service learning. Students also develop the capacity for self-analysis, self-evaluation, adaptability, flexibility, creativity and innovation. Service learning paves way to self-discovery, capable of whom they are and what they are capable of doing (Meyers.1993) and exploration of one-self, as discovery about oneself helps one to identify and actualize one's potential. Service learning participants are able understand the volume and breadth of different social issues prevailing in the society. Discovery of self leads to better ways of reflecting on issues which results in a learner being a critical thinker.

### **Service Learning experience aids Critical thinking through Lev Vygotsky's Socio-Constructivism Theory of Learning**

Social interaction or social environment backed by self – directed learning is the crux of Socio-constructivism theory of learning by Lev Vygotsky. More knowledgeable other (MKO) and Zone of Proximal Development (ZPD) of the

socio constructivism theory may stimulate critical thinking through a service learning experience. The zone of proximal development could be the service learning experience which would help in the development of critical thinking. Service learning as the zone of proximal development through scaffolding experience would help in the application of the knowledge learned in the theory classes. A service learning experience advocates learning in community settings, where a learner applies theoretical concepts in community settings. The day to day interaction and working and living with the community participants acts as a scaffolding experience which would be a good way to get exposed to and understand the different problems of the community participants. Scaffolding experience is found to motivate and provide a personalized teaching experience that results in efficient learning. Along with efficient learning it also leads to a transformation within the pre service teachers. This is supported by a study conducted by Baldwin, Buchanann & Rudisill (2007) where it was observed that there was a change in the stereotype beliefs and preconceived notions among teacher candidates. Such stereotyped beliefs are possible only after sufficient analysis and inference of situations and issues.

The more knowledgeable others increases the problem solving ability of the learner as it is the difference between what the learner knows and what the learner acquires from the different stakeholders in the community. Community settings involve interaction with teachers, peers, service partners, and service providers who act as the more knowledgeable others. The zone of more knowledgeable others refers to the difference in the knowledge the learners acquired in the theory class to knowledge gained through discussions and interactions within the service recipients, peers while engaging oneself in acts of community service. Through interaction with the different people involved in the more knowledgeable others leads to constructive reflection. Reflecting on the different experiences through the service learning experience would help the pre service teachers to enhance critical thinking skills. The teacher educators should support the service learning experience with rich questions for reflection. Reflective questions with peers and self reflection would surely enhance critical thinking skills among pre service teachers. Teacher educators should enrich the reflection among students by supporting with good research articles and papers on themes related to service learning experience. The engagement through the more knowledgeable results in development of life skills among students and develops critical thinking (Bohlander, 2010 ; Astin et al., n.d.,2000 . Service learning is thus effective in developing learners' life skills applicable to real-world circumstances.



### **Need for the study**

The recent National Education Policy 2020 has placed special emphasis on higher education institutions providing meaningful community service to students with an objective to infuse values and life skills among students. This study would help the teaching fraternity to become aware of pre service teachers ability to think critically. The study also helps the teacher educators to plan rich service learning experience through community engagement.

### **Design for the Study**

The present study is a descriptive study of the co-relational and causal-comparative type

### **Objectives for the present study**

1. To study the pre service teachers perception towards service learning
2. To study the pre service perception towards critical thinking
3. To ascertain the relationship between Critical Thinking scores and Service

Learning scores of Pre-service teachers on the basis of

- a) Total sample
- b) Gender wise
- c) Type of Institutions

### **Hypothesis for the present study**

There is no significant difference between the critical thinking scores and service learning scores of pre service teachers

### **Sample for the study**

The sample for the study comprised of 1054 pre service teachers from aided and unaided institutes of Mumbai.

### **Tools for the study**

#### **• Service Learning**

Service-learning scale prepared by Justin Aselage was used for the present study. The service learning tool comprised of 4 sub dimensions, commitment to community service, intent to volunteer, civic efficacy, awareness of social problems, and applicability of coursework and skills

#### **• Critical Thinking**

Watson –Glaser Critical Thinking Appraisal form S was used for the present study. The tool consists of five subsets Inference, discriminating among degrees of truth or falsity of inferences drawn from given data, recognition of assumptions, deduction, interpretation and evaluation of arguments.

### **Analysis of the study**

**Table 1**

**Descriptive Statistics of Service Learning for total pre service teachers**

<b>Sample Size</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>S.D.</b>	<b>Skewness</b>	<b>Kurtosis</b>
1054	92.87	92.00	88.00	12.45	0.75	3.92

In the table, the mean, median and mode of the total sample of B.Ed student teachers are in descending order. The mean of the distribution is 92.87 and the median is 92.00. This shows that the median is lesser than the mean by 0.87. The mode of the distribution is 88.00 which is less than the mean by 4.87. This indicates that the difference between mean, median, and mode are marginal and hence the distribution is near normal. Thus the sample selected is representative of the population.

The kurtosis of the distribution is 3.92 which is greater than 0.263, the kurtosis of a normal distribution. Hence the

distribution is platykurtic. The skewness of the distribution is 0.75 i.e. the distribution is positively skewed and the mean lies to the right of the median.

**Table 2**  
**Descriptive Statistics of Critical Thinking for total pre service teachers**

Sample Size	Mean	Median	Mode	S.D.	Skewness	Kurtosis
1054	19.25	19.00	19.00	3.63	0.73	1.56

In the table, the mean, median and mode of the total sample of B.Ed student teachers are in descending order. The mean of the distribution is 19.25 and the median is 19.00. This shows that the median is lesser than the mean by 0.25. The mode of the distribution is 19.00 which is less than the mean by 0.25. This indicates that the difference between mean, median and mode are marginal and hence the distribution is near normal. Thus the sample selected is representative of the population.

The kurtosis of the distribution is 1.56 which is greater than 0.263, the kurtosis of a normal distribution. Hence the distribution is platykurtic. The skewness of the distribution is 0.73 i.e. the distribution is positively skewed and the mean lies to the right of the median.

**Table 3**  
**Relationship between Service Learning and Critical Thinking**

Variables	Sample	Obtained	Df	Tabulated r at 0.01 level	Tabulated r at 0.05 level
Service Learning & Critical Thinking	1054	0.00	052	0.23	0.25

**Interpretation of ‘r’**

Tabulate value of ‘r’ at 0.01 level is 0.23.

Obtained value of ‘r’ for total sample is 0.

Therefore ‘r’ value is insignificant at 0.01 level and the null hypothesis is accepted

**Discussion on the findings of the study**

It was found that there is no relationship between service learning and critical thinking for the pre service teachers.

**Discussion on the conclusion**

We can conclude that for the give sample there exists no relationship between service learning and critical thinking. This is in contrast to the studies where it was found that there existed a significant relationship between critical thinking and service learning. In one of the studies it was found that critical thinking of students of psychology, leadership and application course increased through a service learning experience (Mole et. al, 2011<sup>11</sup>; Nelson & Crow, 2014<sup>12</sup>). In one more study it was found that service learning helped to increase student’s critical thinking ability (Astin et.al, 2000)<sup>13</sup>. Critical thinking also increased through an international service learning experience. (Ann Lutterman-Aguilar, et.al)<sup>14</sup>. As stated earlier, service learning in the true sense has to be implemented across higher education institutions of India. Policies and circulars regarding implementation of service learning in real sense have been issued recently (University Grants Commission, 2019)<sup>15</sup>. Through the community service program, it is essential that students are provided with sufficient opportunities to explore the cultural components, interact with the members of the community. There is one more study which stresses that real-life engagement and cross

cultural experiences are essential to help pre service teachers understand the complex relations and severity of the problem by enabling the pre service teachers to think critically (Dunlap, 1998)<sup>16</sup>. If the interactions are minimal with no much exposure to diversity, students would be offered less opportunities to utilize their critical thinking skills. This is supported in one of the studies where it was stated that service learning program should be of at least 20 hours duration. Along with the hours of duration equally important is the quality aspect ingrained in the service learning component. Reflection is an important component to think critically. Because it is reflection that helps the pre service teachers to connect the service to self and society which leads to development of different life skills like creativity, critical thinking, problem solving.

The pre service teachers of aided and unaided B.Ed colleges from whom the sample were collected, studied the two year B.Ed. syllabus<sup>17</sup> and were required to complete project-based courses in each of the semesters

As a part of the community work program in semester 1 and semester 4 pre service teachers of aided and unaided B.Ed institutions from whom the sample was collected are expected to maintain a reflective journal and are required to share their daily experience in the form of reports. In semester 1 and semester 4, they are required to serve the community for a period of one week. However, due to lockdown restrictions imposed as a result of Covid -19, pre service teachers in semester 1, performed community service online; however, in semester 4, after the restrictions were lifted, pre service teachers performed community service by providing service at the community center.

Quality of reflection matters if students are to think critically on issues of justice through the service learning experience. Monotonous reflections would not pave way in building the critical thinking of pre service teachers. In one of the studies it was also found that students should be allowed to reflect extensively to yield better outcomes (Celio, 2005)<sup>18</sup> One more study supports that students should be made to reflect and take responsibility of the learning (Lutterman-Aguilar & Gingerich, 2002)<sup>19</sup>. The reflection should be structured which an important aspect of the service is learning program to promote critical thinking (Haan & Hatcher, 2014)<sup>20</sup>. Along with reflection it is important that students are able to minimize their stereotype thinking. It is possible that when pre service teachers engage in community service they may be holding stereotypes assumptions and bias towards the audience. (Skobba & Bruin, 2016, as cited in Kennedy & Grubber, 2020)<sup>21</sup>. Stereotyping thinking can be reduced if students experience dissonance. In one of the study it was mentioned that students should be able to experience the dissonance to be able to think critically (Kiely, 2005)<sup>22</sup>. They should be made to do social analysis of the community participants they visit. Social analysis would help the pre service teachers to question about the economic, political, cultural, and religious or ideological aspects of the society, as suggested in one of the studies (Lutterman-Aguilar & Gingerich, 2002)<sup>23</sup>. Such social analysis would probably enable them to think about the issues and engage in critical thinking. One more way to engage students in critical thinking would be by designing scaffolding information literacy instruction and designing research assignments. (Kennedy & Gruber, 2020)<sup>24</sup>

In one of the studies, it was found that community service did not yield a significant relationship with critical thinking. (Dey, 1991)<sup>25</sup>. As per the theory of U-Curve Adjustment Model developed by Sverre Lysgaard it was found that there exists something called as cultural shock which probably They may have experienced because of the new cultural environment due to which students may be home sick and lonely(Morrissey, 2019)<sup>26</sup>. This may also be one of the reasons that students are not able to think critically and focus on community work because of adjustment issues. This is also supported by the evidence given in the transcripts through the recorded interviews where it was observed that pre service teachers found serving the community service program stressful.

Participant D

*It is distressing because you know all the wrong things*

*It was also found through the transcripts that students could not balance caring for themselves and caring for others.*

Participant L

*Balance between serving others and caring for self while serving the community*

Serving the community requires one to be courageous to be aware of the difficulties faced by people. Pre service teachers would have opted to take safer options rather than risking oneself. This is evident through one of the focused group interview.

Participant C

*Prefer to take safer options.*

Participant M

*Ignorant about the problems others face.*

Another reason could also be that pre service teachers are not confident to analyze and take necessary action because of wrong decisions taken on previous occasions and hence reluctant and not proactive to think critically. And hence no relationship exists between service learning and critical thinking.

If the model as proposed in Figure 1 is well executed and implemented by teacher education institutions, then there are higher chances of increasing pre service teachers ability to think critically through the service learning experience. There should be sufficient interaction and communication where the pre service teachers could engage themselves in rich discussions with peers, community participants, community partners and teacher educators which would ensure pre service teachers to go to higher levels of thinking as per blooms taxonomy. In the dimension of more knowledgeable others teacher education institutions along with community partners should plan for rich and meaningful service learning experience. This planning should involve tasks that pre service teachers would be required to complete as community service experience. There should be sufficient exposure to culture, language and socio economic conditions which would help pre service teachers to analyze infer and reflect. This analysis should also be supported with reflective questions planned by the teacher educators. Through the zone of proximal development through the scaffolding experience pre service teachers should be able to comprehend and apply the knowledge learnt in the theory classes in a practical way through guided reflection.

**Conclusion**

Various commissions from Kothari Commission (1964-66) to the National Curriculum framework (2005)<sup>27</sup> have made community service mandatory for in a teacher training course. Though most teacher education colleges focus on community service for their student teachers, service learning is not been practiced or thought of. It is essential that service learning be adopted in the B. Ed curriculum. Though this paper stresses on service learning, caution should be taken to formulate and plan a rich service learning experience. Success of service learning experience lies on the competency of teacher or faculty (Cleary & Simons, 2006)<sup>28</sup> who plan the service learning experience. A well planned assessment criterion should be prepared to assess students for their service learning contribution. Assessment criteria should include evaluation of reflective journals or diaries, electronic portfolio (Jeandron & Robinson, 2010) discussion forums and research presentations. The assessment criteria should also involve and measure pre service teachers' ability to think critically. Teacher education institutions should focus on ways to blend and integrate the more knowledgeable other and the zone of proximal development in a more meaningful manner to ensure pre service teachers ability to think critically through a service learning experience.

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