



## A STUDY ON THE EFFECTIVENESS OF COLLABORATIVE COMPETENCY FOR SCHOOL CURRICULUM TRANSACTION THROUGH E-LEARNING

Dr. Ritu Sharma<sup>1</sup> & Mr Chandra Prakash Singh<sup>2</sup>

<sup>1</sup>Assistant Professor, Manav Rachna University, [ritu@mru.edu.in](mailto:ritu@mru.edu.in)

<sup>2</sup>Assistant Professor, Manav Rachna University, [cpsingh@mru.edu.in](mailto:cpsingh@mru.edu.in)

Paper Received On: 21 May 2023

Peer Reviewed On: 27 May 2023

Published On: 1 June 2023

### Abstract

*The present study was carried out to explore the effectiveness of collaborative teaching competency while transacting e-learning content in school curricula. The present educational scenario shows a huge body of evidence in favour of e-learning. Along with the basic competencies of content knowledge and pedagogical skills, the modern educator must be skilled at integrating e-learning-driven curricular strategies in the classroom for better teaching and learning. The aspect of e-learning allows for the accommodation of the needs & unique learning styles of diverse learners. The sample for the study was 64 pre-service teachers who infused the elements of e-learning at various stages of their curriculum transaction. Data was collected using a self-constructed questionnaire during semi-structured interviews. Results showed that their collaborative competency at each stage of curricular transaction with respect to e-learning made the academic experience of the students more meaningful and engaging.*

**Keywords:** Collaborative Teaching, the effectiveness of Collaborative Competency, e-learning, Inclusion, Inclusive Classroom, Teaching Competency, Diverse Learners, Diverse Learning Styles



[Scholarly Research Journal's is licensed Based on a work at www.srjis.com](http://www.srjis.com)

### I. INTRODUCTION

The present time is such that the entire teaching-learning process has reached a new dimension. The age-old traditional methods are replaced by modern techniques and technology happens to be the most important and indispensable tool there (Philip & K., 2017). Digital resources are most used and majorly in the case of collaborative teaching competency, the role of e-learning tools is very important. UNESCO has outlined various competencies that would play a pivotal role towards ensuring the sustainability goals and collaborative competency happens to be one of these.

Collaborative competency involves the coordination between both teachers in the choice of digital content (**Kaendler et al., 2014**). Selection of content is done according to the language, difficulty level and appropriateness according to the class and age of the class students. Further, teamwork is needed while interacting with students so that both the teachers involved execute the content as per the needs of the students' learning styles. Different kinds of content are selected according to the requirement of diverse learners in the class and e-content/digital content enables catering to the diversity and different learning requirements of the students (**Biasutti 2011**). While evaluating the learning, again e-resources are made use of. This is useful in a fair evaluation as per the rubrics created by the teachers in collaboration.

Inclusive classrooms allow all learners to be placed in the same premise/classroom making it possible for all learners to learn with peers and get the most of the common resources and thereby developing socio-emotional competence as well (**Peklaj, 2015**). The inclusive class is a place where as stated above the learners come together and are taught by the same teacher who makes certain accommodations in the teaching strategies to help students. The e-content selected is also modified or tweaked accordingly.

The e-learning domain is one where teaching and learning happens through electronic media including the Internet. This medium of instruction is a very effective one and helps students gain conceptual clarity far better than the traditional method (**Bose and Yarmi, 2020**). This medium is gaining popularity as it is easy to use, both for the teacher and students, it saves time and resources as well, students can make use of the content at their own pace and will.

Traditionally, the entire curriculum transaction is divided into three parts, planning, execution and evaluation. All these three aspects make use of e-learning content and methods.

For this study the trainee teachers had been asked to work at two levels: in collaboration with other fellow teachers/peers and use e-learning resources in the classroom while they transacted the curriculum (**Rhim and Han, 2020**).

Collaboration was ensured in various manners where they either collaborated with other subject teachers to teach the same lesson as per requirement or they requested another teacher to take care of some aspect of teaching like presentation or evaluation (**Selvi, 2010**). While they were collaborating they used e-learning material as a mandatory condition.

## II. REVIEW OF RELATED LITERATURE

**Sharma and Singh (2022).** “*A Comparative Study on the Perception of Pre-Service and In-Service Teachers to Collaborative Competency in Teaching*”. The study was carried out on the sample size of 42 pre-service teachers and 29 in-service teachers to find out their perception towards collaborative competency during various stages of curriculum transaction. The findings of the research suggest that both groups felt that collaborative competency is an important element during teaching-learning activity and that it has a positive impact on the learner's engagement and their educational outcome.

**Bose and Yarmi (2020).** “*Promoting prospective teachers' conceptual knowledge through web-based blended learning*”. The present study was carried out on 34 prospective teachers using a non-experimental post-test-only design. The researchers used a comparative analysis of both groups to explore the effectiveness of web-based learning in mathematics. Researchers found that the conceptual understanding of prospective teachers increased significantly, who were involved in web-based learning. They also advocated that these prospective teachers learned from each other and developed long-term commitment.

**Rhim and Han (2020).** “*Teaching online: foundational concepts of online learning and practical guidelines*”. This research article aimed to investigate various aspects of online learning. According to the researchers, online learning is an effective means of delivering instructions however the pre-requisite knowledge of e-content plays a significant role in the quality of learning experience. They advocated the importance of experiential learning and online teaching & learning.

**Mandeville et al., (2017).** “*The Effect of Problem-Based Learning on Undergraduate Oral Communication Competency*”. The present study was carried out on the sample size of 29 small groups consisting of 80 students from two consecutive undergraduate programs. Rubrics were used to gather and assess oral communication competency. The research was based upon the implication of Problem-based Learning in the classroom, in which researchers explored the role of collaborative learning in oral competency. The study clearly shows that with the help of collaborative learning environment learners get the opportunity to enhance their effective communication which is one of the life skills given by WHO.

**Philip & K. (2017).** *“Professional Competencies for Effective Teaching Learning Process”* The qualitative study was aimed at identifying the competency areas that faculties of colleges need to consider for effective teaching and to analyze the important areas that help faculties in handling their classes. Secondary data was collected based on journals, books and online data. Data revealed that teaching competencies involved effective explicit instructions, including well-designed and clear instructions, instructions that lead to successful opportunities for acquisition, teaching to mastery and teaching foundational knowledge and skills.

**Nair (2015).** *“To find out the importance of teaching competencies as a factor for teaching effectiveness at Higher Education”*. The study was carried out as a conceptual paper to identify which competencies are most desirable for teaching effectiveness. Research from 1954 till 2013 was analyzed and it was found that a rigorous review of the literature could not help identify the most indispensable single skill necessary for teaching effectiveness. Various broad areas were identified such as communication, intelligence and content knowledge. Good attitude, equal treatment and attention to students were other equally important qualities. Achievement orientation and nurturance were equally important traits. Technical Skills, Administrative skills, Interpersonal skills, Planning skills, Managerial skills, and Evaluation skills were also taken as essential skills

**Peklaj (2015).** *“Teacher competencies through the prism of educational research”*. Qualitative research based on analysis of research available was done to find out the educational products and to identify the competencies related to student achievement. The research outlines the various competencies that promote the cognitive processes, affective and social processes and have a bearing on the overall development of students. The competencies lead to the development of metacognitive abilities as well.

**Kaendler et al. (2014).** *“Teacher Competencies for the Implementation of Collaborative Learning in the Classroom: a Framework and Research Review”*. The study was carried out using a Meta-Analysis of the available literature related to teacher competency in collaborative learning. This study identifies five collaborative competencies: Planning, Monitoring, Supporting, Consolidating and Reflecting.

**Kulshrestha and Pandey (2013).** *“Teachers Training and Professional Competencies”*. The conceptual paper was aimed to emphasize the teacher training and professional competencies required in the teaching-learning process”. According to the research three major competencies which are required for professional development in the field of education are: Instructional Competency; Organization Competency; and Evaluative Competency.

**Biasutti (2011).** *“The student experience of a collaborative e-learning university module”*. The study was carried out on a sample size of 92 students on various themes which includes teamwork, cognitive, operating, organizing and ethic. The researcher found that group size plays a significant role in e-learning, students are more connected with each other in small groups and learn better. It also improved their social as well as communication skills.

**Selvi (2010).** *“Teachers’ Competencies”* The descriptive study analyzed the general framework regarding teacher competencies. The competencies related to the curriculum were analyzed to gauge whether they meet up with the requirement of the modern-day educationist. The analysis of the paper shows the curriculum competencies spread across various areas. These were explained in nine different dimensions : field competencies, research competencies, curriculum competencies, lifelong learning competencies, social-cultural competencies, emotional competencies, communication competencies, information and communication technologies competencies (ICT) and environmental competencies.

### **III. PURPOSE**

The study was aimed at gauging the effectiveness of collaborative competency of school teachers while they made use of digital resources or any e-learning material or medium. The purpose was to see if collaboration among trainee teachers had any positive/negative/neutral effect on the use of e-learning in the classroom. It is a known fact that in the present time use of electronic material is and is going to be indispensable for all. The classroom would need digital resources to enable effective transactions and collaboration among teachers is the need of the hour. Studies have shown that when teachers collaborate at different stages of teaching, their overall effectiveness is better as the strengths of both can be utilized to the fullest; also this provides an

opportunity for the students to get a new/different perspective as well in the same class, but whether this competency would be useful while using e-learning material and resources was the question. This study explores this aspect, trying to explore if collaboration would be useful in this situation as well.

#### **IV. RESEARCH QUESTIONS**

In light of the above review of literature, the following research questions were framed:

1. To study the conceptual understanding of pre-service concerning e-learning.
2. What is the role of collaboration during the planning stage of teaching through e-learning tools/resources?
3. What is the role of collaboration during the execution stage of teaching through e-learning tools/resources?
4. What is the role of collaboration during the evaluation stage of teaching through e-learning tools/resources?
5. To explore the scope of e-learning in the modern classroom.

#### **V. METHODOLOGY**

The study is based on purposive sampling with a sample of 64 pre-service teachers. They were instructed to collaborate with other teachers while using digital resources in the classroom over four months. They used e-learning material including videos, recorded speeches, and digital tools for assessment to transact the curriculum. To collect data, a self-created open-ended questionnaire (included in the appendix) was developed and validated by experts with minor suggestions/modifications. The validated questionnaire was then administered online to the pre-service teachers during the semi-structured interviews that were conducted in the same manner and thereafter the responses so collected were used for analysis.

The data collected was analysed qualitatively to understand the responses, which were coded and grouped into themes. Similar content in the responses was used to assign them to the same code. Once all the codes were determined, themes were derived from them. Table 1, containing the codes that can be found in the appendix.

#### **VI. ANALYSIS AND INTERPRETATION OF DATA**

##### **1. Conceptual understanding with respect to e-learning.**

This parameter was aimed at gauging the level of conceptual understanding of the trainee-teachers. It was assessed based on their conceptual understanding of e-learning. Out of the whole group, it was seen that 33 trainee teachers had exposure as well as conceptual understanding while 29 were neutral towards e-learning as a useful tool in teaching while 2 had no exposure to e-content development and lacked basic conceptual understanding. The results showed that the responses were 45.7% satisfactory and 51.4% were neutral and 2.9% were found to be unsatisfactory concerning their conceptual understanding pertaining to e-learning. The results further show that when there is a basic understanding of the concept of e-content the execution of the same is easy in the classroom setting. The view is supported by the research where the researchers claim that pre-requisite knowledge of e-content plays a significant role in the quality of the learning experience (Rhim and Han, 2020) that further contributes to the successful curriculum transaction of related e-content. This aspect is important as the personal clarity of students with respect to content would be most essential when content would be presented to students.

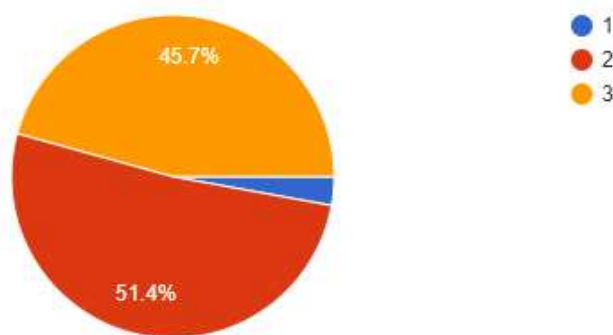


Figure 1: Conceptual understanding with respect to e-learning

## II. Collaboration during the Planning Stage

Respondents claimed that while they were designing their objectives and outcomes in collaboration with other teachers during the planning stage they built up their own skills and found it effective. They said that it helped them to plan their objectives and outcomes with better clarity. Also, they said that it enabled them to learn new ideas and develop their skills. This further helped them gain a new perspective and made their planning effective. They found it

enriching to work in collaboration with other teachers. Collaboration during this stage helped them feel motivated and enriched (**Sharma and Singh 2022**). But one respondent felt that collaboration may not be a useful tool that could be used in collaboration.

Respondents said that while developing e-content they found collaboration very useful (**Nair, 2015**) as it became much easier and far better than when they were doing it alone. Also, their work was more efficient and the guidance they got from each other was very useful in developing e-learning content. It further helped them improve their skill since they were at the beginner stage as teachers. This aspect helped them develop e-content better. Two respondents said they got little help in collaboration while one had a neutral attitude towards collaboration during this stage of development of e-learning.

The stage of planning is very crucial as it helps teachers to identify the available resources and how to use the same in the best way possible. The collaborative competency makes planning a very useful tool particularly when using any digital content. Planning helps create a blueprint for the teacher to design and plan his lesson well, so collaboration at this stage is a useful activity, especially when it comes to the use of e-content.

### **3. Collaboration during the Execution Stage**

During the stage of using ICT-based pedagogies, the respondents found it immensely useful in creating new ideas; it improved the engagement with learners in the classroom as it provided support to the teacher in making use of innovative pedagogies. It further helped them to cater to diversity and work with better clarity. Respondents said that while they worked in collaboration with each other during the teaching stage, they could function in a good way as it helped them to create new material that was more interesting and they discovered new ways of using this strategy (**Mandeville et al., 2017**). One respondent said that it did not help him at all and one said that he was clueless about it.

Respondents claimed that the use of collaboration helped them in the execution of e-content-based activities in the class as it helped them generate creative ideas and they learnt more. It helped them develop their skill set and get a better experience when they worked in collaboration. It provided them more flexibility and they became more efficient in their execution of e-content-based activities. The respondents said that they got good guidance from



each other and made their task enriched (**Philip & K. 2017**) and it helped them to understand the strength and weaknesses of the child. The essential modification in the curricular engagements was then done to meet the needs of diverse learners. This helped them reduce the burden on one person as the support of the other would be there to carry out the activities in the classroom.

When students were asked how well they were able to involve students in collaboration, they said that it happened very well. The students were engaged well and they found the collaborative teaching more interesting and effective. They could satisfy the natural curiosity of the students and found it encouraging as well (**Mandeville et al., 2017**). They found that this method was easy for the students since they did not face any difficulty. This method improved interpersonal communication and increased the participation of students as well. The holistic development of students was also ensured using this method. Respondents claimed that the method was a very encouraging one as collaboration helped both teachers to work well together (**Sharma and Singh 2022**).

Execution of lessons in the classroom needs meticulous planning keeping in view the diversity among the learners, especially with respect to their learning styles and learning requirements. From the above responses, it is quite clear that the trainee teachers believe in the aspect of collaboration at this stage and they claim that it has benefitted them in various ways (**Peklaj, 2015**).

#### **4. Collaboration during the Evaluation Stage**

Evaluation of learning happens to be one very important aspect of curricular transaction at any level of teaching, specifically at school level. This is because each concept relates with the other and when the first level is achieved, the next level can be reached seamlessly. The study revealed that trainee teachers found collaboration to be an effective tool at this stage as well.

Home assignments were seen to be more helpful and engaging when developed in collaboration with other teachers. Respondents said that the activities planned for the home tasks enabled problem-solving as well. It helped plan out better interactive activities where students were encouraged to be more interactive and creative (**Biasutti, 2011**). There was a better flow of ideas and it was very helpful.

Evaluation of the level of learning of students based on the content presented in the classroom, the comprehension and understanding of students helps in improvising in many ways. This stage enables the teacher to analyze his own strengths and also if any modification or change would be required in the methodology. Collaboration during this stage of evaluation of learning enabled enhanced learning experiences of students. Evaluation would be both summative and formative to ensure holistic development (**Mandeville et al., 2017**). Also, home assignments that are designed keeping in mind e-learning content were seen to be more meaningful when teachers collaborated with each other. They said that this stage allowed them to use innovative methods which they did not explore when teaching individually in the classroom.

##### **5. Scope of e-learning in the Modern Classroom.**

Respondents claimed that their experience was very good as they explored new methodologies and dimensions of e-learning in collaboration with each other. They claimed that many times they came across excellent material which they had not earlier explored or even heard of. They further said that they found it inspirational as the domain is full of unlimited possibilities (**Bose and Yarmi, 2020**) and options that make learning interesting and interactive.

Further, they said that their experience with other teachers in collaboration was very satisfactory while few did not find it satisfactory; a very small number had a neutral perspective towards the use of e-learning in the classroom.

The respondents said that when the e-learning material and content were activity based the learning of students was very effective so it should be activity-oriented (**Peklaj, 2015**). They also said that digitalization would surely lead to better and improved learning among students. Also, it was claimed that curriculum development should consider the fact that e-learning is going to be one of the most important aspects of modern-day teaching and learning.

The use of collaboration while using e-learning in the classroom is surely a competency found very useful at all stages of teaching and learning. The study found that the use of teaching competency enhanced the use of e-learning strategies in the classroom. It also helped in identifying the diverse needs of learners and helping them accordingly (**Nair, 2015**).

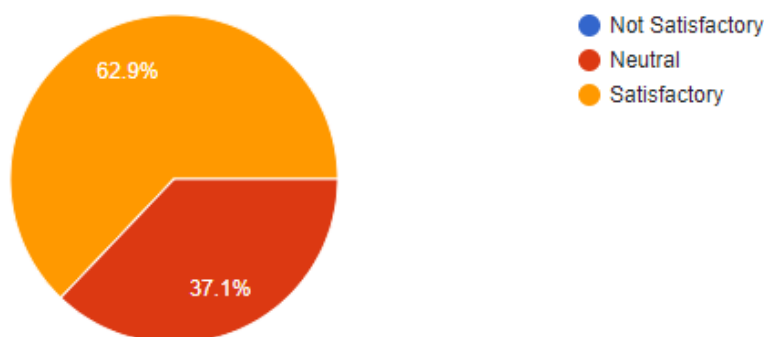


Figure 2: Experience of working in collaboration with any other teacher

## VII. FINDINGS

The study focused on the aspect of collaboration at various levels of teaching. It explored the level of knowledge that trainee teachers had towards the concept of e-learning, the results were encouraging as most of them understood what e-content was and also how it could make their pedagogical skills even better. The study revealed that when the trainee teachers collaborated with each other on the use of digital tools/content their understanding became better and was further improved.

The stage of planning involved trainee teachers together considering the content and how the objectives could be framed and designed in the best way possible especially while using the elearning methods and content. It was further seen that this stage was more meaningful when they collaborated with each other. The activities they planned using digital content enabled better designing of their pedagogical content with respect to the objectives and outcomes. The responses showed that collaboration at the stage of planning of e learning content was very effective.

Collaboration during the execution of lessons was seen to be very useful in the study. Most of the respondents said that their experience was very meaningful and when they collaborated. They further emphasized the fact that when they executed the lesson according to the different learning styles their collaboration with each other was very meaningful as it helped them identify the strengths and weaknesses of students and accordingly made relevant modifications in their content.

Evaluation happens to be one of the most important aspects of teaching and learning as it helps the teachers to understand the achievement level of students. The collaboration among teachers made the evaluation unbiased, fair and very easy. They helped each other to make the execution and evaluation of digital content easier and better.

The use of collaboration was found to be an essential manner in which they could execute the teaching of e-content easily. It was further found that if teachers collaborated their regular teaching learning would improve and also while they were using any e-learning content or digital content. Also it was seen that when collaborative practices were employed each stage of teaching learning showed a higher level of students engagement and enhanced learning.

### **VIII. SUMMARY**

The scenario in the modern day is that electronic media has become all pervasive and most widely used. It is indispensable and almost each and every activity uses digital form in one way or another. The educational arena is now digitalized and e-learning is surely the new normal. Each activity is executed with the use of electronic media. Each stage of teaching-learning activities involves the use of technology and e-learning is creating innovations each day.

The present study was aimed to explore the effectiveness of collaborative competency for school curriculum transaction through e-learning. The sample was a group of trainee teachers who were asked to work in collaboration with each other while they used some digital content for class presentations. The results showed that collaborative competency was very important while teaching. Collaboration is an essential competency as defined by UNESCO and is indispensable specifically in the education domain. The present research showed very encouraging results that if collaboration was done at different stages of teaching it was seen that their efficiency was better. Finally it may be reiterated that collaboration at each stage makes school curriculum transaction very effective and meaningful.

## IX. REFERENCES

- Biasutti, M. (2011). *The student experience of a collaborative e-learning university module*. *Computers & Education*. <https://doi.org/10.1016/j.compedu.2011.04.006>
- Bose, P., & Yarmi, G. (2020). *Promoting prospective teachers' conceptual knowledge through web-based blended learning*. *Journal of Research and Advances in Mathematics Education*, 5(2), 187–201. <https://doi.org/10.23917/jramathedu.v5i2.10418>
- Kaendler, C., Wiedmann, M., Rummel, N., & Spada, H. (2014). *Teacher Competencies for the Implementation of Collaborative Learning in the Classroom: a Framework and Research Review*. *Educational Psychology Review*, 27(3), 505–536. <https://doi.org/10.1007/s10648-014-9288-9>
- Kulshrestha, A. K., & Pandey, K. (2013). [http://www.voiceofresearch.org/doc/mar-2013/Mar-2013\\_6.pdf](http://www.voiceofresearch.org/doc/mar-2013/Mar-2013_6.pdf). *Voice of Research*, 1(4), 29–33. [http://www.voiceofresearch.org/doc/mar-2013/Mar-2013\\_6.pdf](http://www.voiceofresearch.org/doc/mar-2013/Mar-2013_6.pdf)
- Mandeville, D. S., Ho, T. K., & Lindy a. Valdez, L. a. V. (2017). *The Effect Of Problem Based Learning On Undergraduate Oral Communication Competency*. *Journal of College Teaching & Learning (TLC)*, 14(1), 1–10. <https://doi.org/10.19030/tlc.v14i1.9957>
- Nair, P. (2015). *To find out the importance of teaching competencies as a factor for teaching effectiveness at higher education*. *Indian Journal of Research*, 4(11), 116–117. [https://www.worldwidejournals.com/paripex/recent\\_issues\\_pdf/2015/November/November\\_2015\\_1447850655\\_38.pdf](https://www.worldwidejournals.com/paripex/recent_issues_pdf/2015/November/November_2015_1447850655_38.pdf)
- Peklaj, C. (2015). *Teacher Competencies through the Prism of Educational Research*. *Center for Educational Policy Studies Journal*, 5(3), 183–204. <https://doi.org/10.26529/cepsj.134>
- Philip, M. P., & K, R. (2017). *Professional Competencies for Effective Teaching Learning Process*. *International Journal of Trend in Research and Development (IJTRD)*, 25–29. <http://www.ijtrd.com/papers/IJTRD12201.pdf>
- Rhim, H. C., & Han, H. (2020). *Teaching online: foundational concepts of online learning and practical guidelines*. *Korean Journal of Medical Education*, 32(3), 175–183. <https://doi.org/10.3946/kjme.2020.171>
- Selvi, K. (2010). *Teachers' Competencies*. *Cultura International Journal of Philosophy of Culture and Axiology*, 7(1), 167–175. <https://doi.org/10.5840/cultura20107133>
- Sharma, R., & Singh, C. P. (2022). *A Comparative Study on the Perception of Pre-Service and In-Service Teachers with respect to Collaborative Competency in Teaching*. In *OUTCOME BASED CURRICULUM AND PEDAGOGY Contemporary Research Studies (1st ed., Vol. 1, pp. 261–270)*. VL Media Solutions.
- Swan, K. (2002). *Building Learning Communities in Online Courses: the importance of interaction*. *Education, Communication & Information*, 2(1), 23–49. <https://doi.org/10.1080/1463631022000005016>

### Cite Your Article As:

Dr. Ritu Sharma<sup>1</sup>, & Mr Chandra Prakash Singh<sup>2</sup>. (2023). A STUDY ON THE EFFECTIVENESS OF COLLABORATIVE COMPETENCY FOR SCHOOL CURRICULUM TRANSACTION THROUGH E-LEARNING. *Scholarly Research Journal for Humanity Science & English Language*, 11 (57), 156–168. <https://doi.org/10.5281/zenodo.8032170>