

---

## **A Comparative Study on the Perception of Pre-Service and In-Service Teachers with respect to Collaborative Competency in Teaching**

***Mr. Chandra Prakash Singh***

Amity Institute of Rehabilitation Sciences (AIRS), Amity University Uttar Pradesh Lucknow Campus

E-mail: cpsingh1@lko.amity.edu

### **Abstract**

The present study is carried out with the purpose of exploring the comparison of perception of pre-service and in-service teachers towards collaborative teaching. Collaborative teaching competency is an indispensable pedagogical skill required to achieve the aims of inclusive education. Collaboration enables two or more teachers to transact curriculum together with the intention of better learning of students. Teachers are the direct stakeholders who work in an inclusive setting to accommodate the diverse learning needs and design curriculum together. The study is carried out on 42 pre-service and 29 in-service teachers. A self-constructed open ended questionnaire was used to explore the perception of these pre-service and in-service teachers towards collaborative teaching. The data gathered through the interview schedule was analyzed qualitatively and placed into themes after codifying the themes. Results showed that both pre-service and in-service teachers found the collaborative teaching method useful, few had no idea and had never practiced collaboration in the existing set up but would be interested in developing the collaborative competency.

**Keywords:** Collaborative Teaching, Pre-Service Teachers, In-Service Teachers, Perception, Inclusion, Inclusive Classroom, Teaching Competency

### **I. INTRODUCTION**

The educational system today is fast changing and the modern educator must keep pace with the innovative pedagogies. In order to cater to the new classroom, the teacher needs to adapt and accommodate. The role of the teacher today is very diverse and significant as he needs to be a facilitator as well as being an educator. The teacher, when empowered with all indispensable skills

---

**Received:** 21.09.2025

**Accepted:** 15.10.2025

**Published:** 16.10.2025



This work is licensed and distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

will be the quintessential torch bearer for all future endeavors with respect to education.

When two or more teachers come together to transact the same content or material they are said to be working in collaboration.

Incheon Declaration and SDG4-Education 2030 Framework for Action for Action highlights the fact that teachers would play the most crucial role in achieving the results desired. In order to achieve quality education, teachers and educators need to be empowered, should be recruited as per the requirements in the field and should be provided suitable remuneration. Their motivation would act as the most important step towards the accomplishment of the target.

### **Teaching competency:**

Teaching competency is defined as the skill of a teacher at all the various transactions required for effective teaching learning. It includes the skill at his content knowledge, skill at pedagogy and the skill at using ICT enabled tools and aids. It facilitates the ease with which the teacher can use the latest pedagogical techniques for enhanced learning experience in the modern day classroom. The classroom today is inclusive so as to accommodate the learner with diversity and diverse learning styles. Collaboration happens to be the new age attribute which paves way for co-operating and helping the co-teacher so as to help the learner better.

The teacher's awareness of the collaborative skills in teaching turns out to be an asset as he can take the help of others to address students with different needs. The competencies among teachers must be in line with the essential sustainability competencies as outlined by UNESCO which includes the competencies such as Strategic, Self-awareness Anticipatory, Critical thinking, Normative, Collaboration Systems Thinking, Integrated problem-solving competency (UNESCO, 2017)

### **Inclusion**

As per the UNESCO along with other international organizations that advocate for the human rights ensure the prohibition of any kind of exclusion on the ground of educational, gender, social, racial, religious, nationality, economic condition, ability or any other. They ensure to promote universal accessibility by removing various barriers that hinder the participation of any individual and thus respect the individual differences and cater to the diverse needs.

Inclusion means to have all students in the normal class so that they all get exposed to the same presentation by the teacher and they are engaged in activities as per their own learning needs and styles. It allows multiple means of representation and engagement in the classroom. The evaluation of the students' activities also is done in different formats running from audio, written and diagrammatic. The modern day educator must be able to collaborate in the inclusive class so that students get help in addressing issues related to the present time. The classroom today is an inclusive one where there is diversity in the classroom so as to accommodate students with diverse learning styles that help them learn better and also they have peculiar requirements of learning.

## **II. REVIEW OF RELATED LITERATURE**

**Ghedin & Aquario (2020).** “*Collaborative Teaching in Mainstream Schools: Research with General Education and Support Teachers*”. The researchers conducted an experimental study that includes sample of 691 teachers consisting of Support Teachers and General Education Teachers. The study discusses collaboration as a requirement for successful inclusion; however it also highlights the variation between ideal situation and actual execution. The key challenges included in the research were socio-cultural and attitudinal differences along with the time constraints. These variables contribute to the negative outcome of collaborative teaching.

**Kazempour & Amirshokohi, (2020).** “*Pre-service Teachers' Collaborative Learning Experiences in a Science Content Course*”. The qualitative study was carried out on the sample size of 16 preservice teachers, consisting of two males and fourteen females, divided into four different groups. The researchers conducted this study to investigate dynamics of inquiry based learning experiences among pre-service teachers. The researchers highlighted the dynamics of collaborative learning and the significance of individual differences during the collaboration. The research suggested that science course should be designed and executed in such a way that it can facilitate the direct experiences and effective interaction among the participants. They also advocated that the collaboration is important to develop attitude, beliefs, critical and creative thinking as well as confidence among learners.

**Nair & Kumar (2018).** *“A Study on Identifying Teaching Competencies and Factors Affecting Teaching Competencies with Special Reference to MBA Institutes in Gujarat”*. The research was conducted on the sample size of 356 faculty members to explore the competencies as well as the factors that affect the teaching competency through Structural Equation Modeling method. Researchers highlighted the significance of upgradation of knowledge, skill as well as positive attitude for developing teaching competencies. The researchers observed that the skill component was crucial for improving teaching competencies. Sixteen skill sets were identified by the researchers out of which, the skills of clear oral communication, teaching through different modes, providing prompt feedback and fostering creative and critical thinking among students are core elements.

**Kocabas & Gokce Erbil (2017).** *“A Scale Development for Teacher Competencies on Cooperative Learning Method”*. Researchers conducted an exploratory study that included 236 Teachers who were working in the seven regions of Turkey. The research highlights the challenges of Collaborative learning in the classroom setting. One of the major problems identified by the researchers is inadequate knowledge among teachers about collaborative learning. The study also reflects the misconception among teachers and their perception that collaborative teaching can be improvised if we overcome the problems related with the implementation and execution.

**Ansari Ricci & Fingon (2017).** *“Faculty Modeling Co-Teaching and Collaboration Practices in General Education and Special Education Courses in Teacher Preparation Programmes”*. The researchers carried out a descriptive study on the sample consisting of 34 students from two different master's programmes, which includes 2 Substitute teachers, 3 Intern Teachers, 7 Teacher assistants, 10 GE Classroom Teachers, and 12 pre-service teachers. The findings of the research shows that both teachers as well as students benefit from collaborative teaching the researcher emphasize upon the importance of planning the instruction to attain smooth and enriched experience throughout the instructional plan. They state that key competency for collaborative teaching is communication between the collaborators while planning and implementing the instructional plan.

**Liu et al., (2015).** “*Collaborative Professional Development of Mentor Teachers and Pre-Service Teachers in Relation to Technology Integration*”. The qualitative study was conducted on three pairs of mentor teacher’s along with pre-service teachers to examine the collaborative professional development. The researchers used technology integration of technology during the process. The research findings suggest that it enables mentor teachers top adapt their instruction with the help of pre-service teachers in a more effective way. It also reflects that application of technological pedagogical knowledge is more frequent in pre-service teachers as compared with mentor teachers. The researchers stated that collaborative professional development benefits both the teachers & pre-service as well as in-service, however due to active participation pre-service teachers benefited the most during the collaboration.

**Ruys, (2012).** “*Collaborative learning in pre-service teacher education: primary school teachers' competence and educational practice*”. The exploratory study was conducted on the sample size of 210 pre-service teachers through pre-test-post-test design. The data was gathered through semi structured interviews. The researchers found that collaborative learning enhances self-efficacy among pre-service teachers. Attitude of teachers towards collaborative learning is positive and the intention was positive when it comes to developing teaching competency through collaborative learning. The study also reflects that there is some gap between theoretical and practical knowledge among teachers related with collaborative learning. They advocated that good grasp should be acquired during the pre-service teacher training programmes.

**Milteniene, (2012).** “*Teacher Collaboration in the Context of Inclusive Education*”. The quantitative study was conducted on the sample size of 165 teachers including 118 subject teachers, 35 primary school teachers and 12 special educators. The data was gathered through a survey method consisting of a semi-closed ended questionnaire in two parts. Researcher identified collaboration as one of the means of professional development of teachers. According to them, inclusion isn’t possible without proper collaboration among teachers, and for effective collaboration a positive attitude is the key principle behind effective collaboration and inclusion.

**Conway, (2012).** “*Team-teaching for inclusive learning: Purposes, practices and perceptions of a team-teaching initiative in Irish post-primary schools*”. The study was carried out on the sample size of 8 teachers and 53 students. Research data was gathered through semi-structured interviews. The researchers consider collaborative teaching as a potential way to achieve inclusion. They advocate that it builds trust between teacher and students. According to the findings of the study, researchers suggest that purpose, process and perception about collaborative teaching should be very clear to enhance effectiveness. Study also depicts that collaborative teaching is not understood by the majority as a result it is still under values and under practiced in classrooms.

**Solis et al., (2012).** “*Collaborative Models of Instruction: The Empirical Foundations of Inclusion and Co-Teaching*”. Researcher conducted meta-analysis on past 146 studies conducted on collaborative teaching between 1990 and 2010. Findings suggest that in the majority of collaborative settings it is often seen that general education teachers provide standardized instruction in collaboration with special education teachers to cater to the specific needs of children with disabilities. Researchers also found that in initial studies teachers were little reluctant whereas in later studies teachers' attitudes were positive towards collaborative teaching.

**Thousand & Villa, (2007).** “*Collaborative teaching for teacher educators? Implications for university curriculum reform*”. Researchers conducted literature review on the collaborative teaching and analyzed the status of the research work done in the respective area. They found that there is a lack of assessment methods as well as blurred criteria's for evaluating teacher's effectiveness in collaborative teaching. Moreover, they advocated designing a curriculum to facilitate co-teaching in the classroom. They suggested that learning activities should be interdepartmental and should include a constructivist approach to enhance mastery of the discipline.

**Seabrooks et al., (2000).** “*Collaboration and virtual mentoring: building relationships between pre-service and in-service special education teachers*” The study was conducted on thirteen graduates and seventeen undergraduate students enrolled in special education program

from two different universities. The study was conducted to understand the scope of collaboration and mentoring among pre-service and in-service teachers. As per the gathered data, researchers found that virtual mentoring had positive impact on collaboration, communication, intervention and teaching skills. They stated that with the help of technology integration and collaboration the core competency skills required for teaching children with special needs can be improvised significantly.

### **III. PURPOSE**

The current study is designed with the purpose of exploring the perception of pre-service & in-service teachers towards collaborative teaching during various stages of curriculum transaction. Collaborative competency has emerged as one of the core skills which are most essential for the teachers working with diverse learners in an inclusive classroom. It is often seen that diverse learners exhibit a cluster of traits. It is difficult to accommodate diverse learners using the traditional approaches; therefore the use of meaningful collaboration enables the teachers to facilitate holistic development of every child. This is one of the most effective ways to ensure inclusion.

### **IV. RESEARCH QUESTIONS**

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

1. To compare the conceptual understanding of pre-service and in-service teachers with respect to collaborative teaching.
2. To compare the role of collaboration during the planning stage of teaching by pre-service and in-service teachers.
3. To compare the role of collaboration during the execution stage of teaching by pre-service and in-service teachers in inclusive classroom.
4. To compare the role of collaboration during the evaluation stage of teaching by pre-service and in-service teachers in inclusive classroom.

---

5. To compare the perspective of the scope of collaborative teaching by pre-service and in-service teachers.

## **V. METHODOLOGY**

Purposive sampling technique was used to draw sample consisting of 42 pre-service and 29 in-service teachers. The Pre-service teachers were instructed to work in collaboration with in-service teachers

A self-created Open Ended Questionnaire (placed in the appendix) was prepared and was shared with experts for validation. After the tool was validated with minor suggestions/modifications it was floated with pre-service and in-service teachers as an online form. The responses were collected and then analyzed.

Qualitative analysis was done so as to understand responses so that they could be codified and then put into themes. While analyzing the responses closely, similarity of content was used to place them under the same code. Once all codes were designated, themes were derived there from. Table1, depicting the codes is placed in the appendix.

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

The comparative analysis of perception of the Pre-service & In-service teachers towards collaborative teaching led to the generation of themes. These are highlighted as per the following common aspects including:

### **Theme 1: Conceptual Understanding**

The analysis of the data shared by both in-service and pre-service teachers shows that collaborative teaching is helpful as well as useful for them in terms of developing the conceptual understanding related with collaborative teaching they claimed that they develop better insight while practicing collaborative teaching. Many respondents found collaborative teaching a very enriching experience that added to their learning. **Nair & Kumar (2018)** in their study claimed

that collaboration during the teaching enables teachers to enhance their skills and learn from each other during the teaching learning process.

With respect to the usefulness of collaborative teaching among pre-service and in-service teachers, similar results were found wherein better teamwork and enhanced learning was seen. In-service teachers said that they found it helpful as it gave them time for bonding better with co-teachers so as to design better instructions. Collaborative teaching helped them to develop interpersonal skills and learn from each other, the same was also advocated by **Ansari Ricci & Fingon (2017)**.

Pre-service teachers claimed that collaboration led to the development of adaptability among them with respect to designing objectives and outcomes and also using appropriate teaching learning materials as well as strategies to cater to the need of diverse learners in an inclusive classroom. Collaboration during this stage provided scope for including innovative pedagogies in the teaching learning process, **Ghedin & Aquario (2020)** in their study claimed that inclusion can be successfully facilitated through collaboration.

The respondents claimed that their team work improved during collaborative teaching and further trust building was also seen among them. According to them it opens new dimensions when it comes to instructional planning and execution as a team. It also helped them to develop better understanding; especially in the case of children with special needs as they got the opportunity to collaborate with special educators. This exposure facilitated their understanding related with the accommodation of CWSN in inclusive classroom, **Kazempour & Amirshokohi, (2020)** also emphasized on the significance of interaction during collaboration.

Collaborative teaching develops a sense of responsibility along with sensitization towards the diverse learning styles of students in the inclusive classroom. In-service teachers felt that collaboration facilitated the democratic outcome as well as it goal directed approach taking care of the diverse needs in the class. The respondents claimed that collaboration was a very effective method as General and special teachers can co-teach and help children with special needs through the inclusive setting, similar results were shown by **Milteniene, (2012)** in their study.

In-service teachers found collaborative teaching a challenging task; this could be because of the lack of understanding of the concept of collaboration among in-service teachers same was supported by **Kocabas & Gokce Erbil (2017)** where they said that the major problem is knowledge inadequacy with respect to collaborative teaching among teachers.

Some in-service teachers claimed to have no experience regarding collaboration at the planning stage, **Ruys, (2012)** highlighted the gap between theory and practical understanding regarding collaborative teaching.

### **Theme 2: Collaboration during the Planning Stage**

As per the gathered data it was seen that collaboration enabled both the in-service as well as pre-service teachers in designing better and clear objectives, they further said that lesson planning was more effective than before. Collaboration gave rise to more ideas for better student involvement, TLM Development and catering to the specific need of diverse learners, **Thousands & Villa, (2007)** explored the role of collaboration in curriculum designing.

Both pre-service and in-service teachers felt that collaboration led to better time management, decision making and higher order thinking skills among students. With respect to the planning stage of the teaching learning process, respondents said that collaboration led to good cooperation among co teachers, it helped to develop confidence among students and also led to better retention of the learned concepts among students, the same was highlighted by **Kazempour & Amirshokoohi, (2020)**.

Pre-service teachers claimed that collaboration led to the development of adaptability among them with respect to designing objectives and outcomes and also using appropriate teaching learning materials as well as strategies to cater to the need of diverse learners in an inclusive classroom. Collaboration during this stage provided scope for including innovative pedagogies in the teaching learning process. In-service teachers said that ICT Integration was better through collaborative practices and also concept mapping was far better among students when the teachers

practice collaboration among themselves while transacting curriculum. **Liu et al., (2015)** reported similar findings in their research.

Both pre-service and in-service teachers agreed with the fact that collaboration during the planning stage facilitated the classroom presentation in a better manner. Both pre-service and in-service teachers claimed that better teamwork was seen when they work in collaboration and it also enables them to address the diverse needs in the inclusive classroom, the same was stated by **Conway, (2012)**.

Some in-service teachers claimed to have no experience regarding collaboration at the planning stage, **Conway, (2012)** also highlights the same in his study.

### **Theme 3: Collaboration during the Execution Stage**

The respondents said that collaborative teaching encouraged better classroom management and student involvement, they said that more ideas could be implemented with each other's support and better execution, they said that the classroom monitoring was more effective and students got more opportunities to demonstrate their learning in the classroom. It also led to designation of responsibilities among students which led to better teamwork and responsibility sharing. Collaboration also was an effective method to encourage brainstorming and problem solving among students. **Kazempour & Amirshokohi, (2020)** reported the same.

It was claimed by pre-service teachers that more creative ideas evolved while collaboration with each other. They could practice the flipped class method during collaboration and it also led to better student engagement, **Liu et al., (2015)** emphasized on the same.

The use of multisensory approach and story-telling were also seen as an innovative practice to accommodate diverse learners during collaboration. They also said that a conducive learning environment developed where conflict management was also observed, **Solis et al., (2012)** advocated about positive attitude towards collaborative teaching.

Few respondents claimed that they had no idea about collaborative teaching and the same was discussed by **Conway, (2012)**.

#### **Theme 4: Collaboration during the Evaluation Stage**

Evaluation of the data gathered showed that both pre-service and in-service teachers found evaluation faster and more meaningful in the collaborative setting, they said that more meaningful assignments were prepared and demonstrated by students when teachers collaborate with each other, multiple means of expression were seen to be incorporated effectively during collaborative teaching. In-service teachers said that they could create higher order assignments for students when they collaborated with co teachers, **Ansari Ricci & Fingon (2017)** reported similar kind of results.

Collaboration further facilitated problem solving abilities among students as claimed by the in-service teachers; this result was reported by **Nair & Kumar (2018)** as well.

In-service teachers shared that collaborative teaching helps them identifying strengths and weakness of diverse learners in various domains of development which can be further intervened and improvised by them. **Ansari Ricci & Fingon (2017)** highlighted the same.

Few respondents claimed that they had no idea about collaboration during evaluation stage. **Conway, (2012)** also found the same results in his study.

#### **Theme 5: Scope of Collaborative Teaching**

This theme revolves around the scope of collaborative teaching in the inclusive classroom the preservice teachers said that more resources should be available to practice inclusion, the also mentioned that overcrowded classrooms hampered the collaborative practices. They suggested that modifications in the timetable should allow flexibility to incorporate collaborative teaching in the class the pre-service teachers also tells that the pre and post-test of students achievement could also be done to check the effectiveness of collaborative teaching in the class, **Solis et al., (2012)** also found similar results in later studies that emphasized the positive attitude of teachers towards collaboration.

In-service teachers said that collaboration should be introduced in the policy related to curriculum design and development and it was an innovative method that led to a conducive environment in the class enabling ICT integration as well. They also suggested that the involvement of the community and the stakeholders would ensure awareness creation among all it was suggested that in-service training should be provided to the teachers already working in the schools, **Seabrooks et al., (2000)** also spoke about the scope of collaboration and mentoring among pre-service and in-service teachers & its positive impact

Few in-service teachers who had limited or no knowledge about collaborative teaching provided no suggestion when it came to collaborative teaching, similar findings were seen in the research by **Thousand & Villa (2007)** where they emphasized on the lack of assessment methods and blurred criteria for evaluating teachers effectiveness in collaboration.

## **VII. FINDINGS**

The evaluation of the responses from the pre-service and in-service teachers brought out both expected and unexpected results. Data was analyzed around the five research questions related to the conceptual understanding of pre-service and in-service teachers, the need of collaboration at the three stages of teaching i.e. planning, execution and evaluation. The scope of collaborative teaching was also evaluated with the help of data captured during the research. Results showed that the pre-service teachers had a conceptual understanding of collaborative teaching. Findings showed that both pre-service and in-service teachers found collaborative teaching effective during the planning stage. Respondents felt that collaboration is an effective tool that could help in enhancing learning among students. They further said that training to the in-service teachers should be provided so that they can incorporate the skill of collaborative teaching in their regular pedagogical practice. They felt that the existing time tables must be flexible enough to accommodate collaboration among co-teachers.

It was suggested by respondents that research should be conducted on the impact of collaborative teaching on students' achievement. This could be tested pre and post collaboration, the results would show the effectiveness of collaboration very easily be measured and analyzed.

## **VIII. SUMMARY**

The teacher's role is one that has undergone a continuous metamorphosis. He was expected to be the one center stage some time ago but now he is expected to facilitate the student to be in that space. He is assisting the student to learn by himself giving him all the necessary training and assistance for independent learning. The skills required by the modern day educator are those of being an expert at subject matter, being effective at delivery of the lesson in the classroom i.e. his pedagogical skills and the most important today is the use of ICT at various levels in the classroom. The other competencies that the teacher should have include the skill of collaborative teaching. This competency allows him to interact with fellow teachers of different subjects so that the students get the best teaching. This can happen in various ways with different subject teachers may collaborate to teach same lesson. In some cases the same teacher can teach two subjects like social science and biological science and so on. The present study showed that the teachers in government school are not quite using the collaborative teaching method but in the private school the collaborative teaching practice is common. This practice should percolate down into the government sector as well for a better teaching learning experience of students.

## **REFERENCES**

1. Ansari Ricci, L., & Fingon, J. C. (2017). Faculty Modeling Co-Teaching and Collaboration Practices in General Education and Special Education Courses in Teacher Preparation Programmes. *ATHENS JOURNAL OF EDUCATION*, 4(4), 351–362. <https://doi.org/10.30958/aje.4-4-4>
2. Conway, P. F. (2012, March 15). Team-teaching for inclusive learning: Purposes, practices and perceptions of a team-teaching initiative in Irish post-primary schools. CORA. <https://cora.ucc.ie/handle/10468/549>
3. Ghedin, E., & Aquario, D. (2020). Collaborative Teaching in Mainstream Schools: Research with General Education and Support Teachers. *International Journal of Whole Schooling*, 16(2), 1–34. <https://files.eric.ed.gov/fulltext/EJ1268954.pdf>

4. Kazempour, M., & Amirshokohi, A. (2020). Pre-service Teachers' Collaborative Learning Experiences in a Science Content Course. *Science Education International*, 31(4), 379–385. <https://doi.org/10.33828/sei.v31.i4.6>
5. Kocabas, A., & Gokce Erbil, D. (2017). A Scale Development for Teacher Competencies on Cooperative Learning Method. *Universal Journal of Educational Research*, 5(3), 316–324. <https://doi.org/10.13189/ujer.2017.050303>
6. Liu, S.-H., Tsai, H.-C., & Huang, Y.-T. (2015). Collaborative Professional Development of Mentor Teachers and Pre-Service Teachers in Relation to Technology Integration. *International Forum of Educational Technology & Society*, 18(3), 161–172. <https://www.jstor.org/stable/jeductechsoci.18.3.161>
7. Milteniene, L. (2012). Teacher collaboration in the context of inclusive education. *SPECIALUSIS UGDYMAS*, 2(27), 111–123. [https://www.researchgate.net/publication/287941250\\_Teacher\\_collaboration\\_in\\_the\\_context\\_of\\_inclusive\\_education](https://www.researchgate.net/publication/287941250_Teacher_collaboration_in_the_context_of_inclusive_education)
8. Nair, P., & Kumar, S. (2018, June 26). Shodhganga@INFLIBNET: A Study on Identifying Teaching Competencies and Factors Affecting Teaching Competencies with Special Reference to MBA Institutes in Gujarat. *Shodhganga: A Reservoir of Indian Theses @ INFLIBNET*. <http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/206444>
9. Ruys, I. (2012). Collaborative learning in pre-service teacher education: primary school teachers' competence and educational practice. *ResearchGate*, 1–245. [https://www.researchgate.net/publication/292609638\\_Collaborative\\_learning\\_in\\_pre-service\\_teacher\\_education\\_primary\\_school\\_teachers'\\_competence\\_and\\_educational\\_practice](https://www.researchgate.net/publication/292609638_Collaborative_learning_in_pre-service_teacher_education_primary_school_teachers'_competence_and_educational_practice)
10. Seabrooks, J. J., Kenney, S., & Lamontagne, M. (2000). Collaboration and virtual mentoring: building relationships between pre-service and in-service special education

teachers. *Journal of Information Technology for Teacher Education*, 9(2), 219–236.

<https://doi.org/10.1080/14759390000200088>

11. Solis, M., Vaughn, S., Swanson, E., & Mcculley, L. (2012). Collaborative models of instruction: The empirical foundations of inclusion and co-teaching. *Psychology in the Schools*, 49(5), 498–510. <https://doi.org/10.1002/pits.21606>
12. Thousand, J. S., & Villa, R. A. (2007). Collaborative teaching for teacher educators? Implications for university curriculum reform. *Collaborative Teaching for University Professors*, 1, 1–23.
13. UNICEF. 2015. The Investment Case for Education and Equity. [www.unicef.org/publications/files/Investment\\_Case\\_for\\_Education\\_and\\_Equity\\_FINAL.pdf](http://www.unicef.org/publications/files/Investment_Case_for_Education_and_Equity_FINAL.pdf).
14. <https://unesdoc.unesco.org/ark:/48223/pf0000245656> Adapted from: UNESCO. 2015. Rethinking Education, op. cit.