# Realistic vs. Effective: An Analysis of Educators' Perceptions of Traditional and Co-teaching Models of Student Teaching

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**Abstract:** Using the Danielson Framework for Teaching, we compare educators' perceptions of the effectiveness of traditional and co-teaching student teaching models. This study frames student teaching as a community of practice with Vygotsky's Zone of Proximal Development as a key feature of the experience. This study uses a mixed methods sequential design. Our data indicate the co-teaching model outperforms the traditional student teaching model on all Danielson components and was preferred by the majority of our participants. Recommendations for teacher preparation and further study of student teaching are discussed.

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## Introduction

The student teaching experience serves as the capstone element of a teacher preparation program. As the bridge between theory and practice, student teaching is the culminating opportunity for careful mentoring and supervised teaching prior to induction as a new teacher. Through analysis of data collected via survey and interview with cooperating teachers and university supervisors, this study seeks to assess educators' perceptions of the effectiveness of a co-teaching versus a traditional model for student teaching. As it is used widely in our state and region, we use the Danielson Framework for Teaching to guide our definition of effectiveness.

For the purposes of this study, we are defining the two models as follows. Both models of student teaching place one student teacher with one cooperating teacher in the respective content and grade band certification area for an extended period of time, typically in a student's last year in a teacher preparation program. In the traditional model, the student teacher observes in the classroom early on and then gradually takes on classroom responsibilities while the cooperating teacher reduces his/her involvement in the classroom. The goal is for the student teacher to acquire and maintain responsibility for as many of the cooperating teacher's tasks as possible. The cooperating teacher provides support and feedback before and after teaching episodes with the support being gradually diminished as the student teacher gains experience. Near the end of the experience, the student teacher hands back responsibilities to the teacher.

In the co-teaching model, the student teacher is actively involved in the classroom from the first day of the experience and continuing through the field placement. Both the student teacher and the cooperating teacher are actively involved in planning, delivery, assessment and evaluation of the teaching responsibilities throughout most of the experience. Modeling and feedback are provided before, *during*, and after instruction. The student teacher is provided with some opportunities for solo teaching, but the main shift happens when the student teacher begins taking the lead with the student teacher directing the work of the cooperating teacher. "While collaboration may occur in the traditional model, it is not the principle organizing [the] approach and some argue that the complexity of learning to teach in the current context demands collaboration" (Rabin, 2020, p. 135). It is this assumption that led the current researchers to implement and then study the co-teaching model of student teaching in our teacher education programs.

While some researchers and practitioners have shifted to using the term "apprentice teaching" (Friend, et. al., 2015) rather than "co-teaching" to describe the scenario in which a licensed teaching is working with a pre-service teacher, we continue to use "co-teaching" as it is the term still used by the initiators of the model in which our teacher preparation programs were trained, and it is still used in much of the research literature to highlight the goal of a truly shared classroom even with a non-licensed co-teacher (Rabin, 2020; Sebald et al., 2021).

## Research Literature

The co-teaching model for professional educators is not new to K-12 education. It has become more popular as schools seek to address the broad needs of children with special educational and/or English language learning needs (Sacks, 2014). Typically, in the K-12 environment, co-teaching involves a licensed general education teacher collaborating with a licensed educational specialist such as a special education teacher, speech therapist,

ESL (English as a Second Language) teacher or a paraprofessional or parent volunteer. Seeing the applications of co-teaching with two licensed teachers (Cook & Friend, 1995), St. Cloud State University was among the first universities in the United States to begin implementing and researching co-teaching as a model for preparing new teachers. Through a multi-year study of student teachers in the co-teaching model, researchers at St. Cloud State demonstrated that this model holds great potential for positive outcomes for student teachers, cooperating teachers, and K-12 students. Their data on benefits and positive outcomes for student teachers, K-12 learners, and cooperating teachers is compelling (Washut-Heck, & Bacharach, 2015/2016). Because of their success, their model of teacher preparation using the co-teaching model has expanded to many teacher preparation programs across the country (Sebald, et. al, 2021).

Co-teaching contexts provide opportunities for teachers to collaborate with colleagues, provide social and professional support for one another, and more effectively meet student learning and behavioral needs (Murawski & Bernhardt, 2015/2016; Sebald et al., 2021). Wassell and LaVan (2009) found that co-teaching during student teaching may impact beginning teachers' operating schema for being a teacher. Gallo-Fox (2009) responded to Wassell and LaVan's work (2009) by positioning co-teaching as a driver of a classroom culture informed by a belief in the shared responsibility for teaching and learning and the actions needed to support such a learning classroom environment. Moreover, Washut-Heck and Bacharach (2012) found that co-teaching in the student teaching context led to enhanced professional dispositions (enthusiasm, reliability, responsibility, initiative, and sensitivity and responsiveness to the needs of students and staff) for the student teachers compared to non-co-teaching student teachers. In terms of transferability of skills, co-teaching allows teachers to develop reflective practices they will use in their future teaching careers (Murphy,et al., 2009).

## Theoretical Framework

Communities of practice are powerful means of learning and development (Lave & Wenger, 1991). "As a locus of engagement in action, interpersonal relations, shared knowledge and negotiation of enterprises, such communities hold the key to real transformation - the kind that has real effects on people's lives" (Wenger, 1998, p. 85). Communities of practice are characterized by three dimensions: mutual engagement, a joint enterprise, and a shared repertoire (Wenger, 1998) that can all be seen in the student teaching experience. The primary purpose of the student teaching experience is to prepare the student teacher to take on the future role of a classroom teacher. To accomplish this, the cooperating teacher, student teacher, and university supervisor are all actively involved in the student teacher's professional development (NCATE, 2010). A joint enterprise "is their (the participants') negotiated response to their situation and thus belongs to them in a profound sense" (Wenger, 1998, p. 77). In student teaching, a shared understanding of what constitutes a lesson plan, specific vocabulary, and classroom routines are all examples of a shared repertoire.

Within a community of practice, the zone of proximal development (ZPD) is a key feature in the development of the identity, beliefs, and practices of student teachers. The ZPD lens is important in examining the distinctive characteristics of the co-teaching model. Links between

Vygotsky's zone of proximal development (ZPD) and co-teaching are documented in the research literature (Ash & Levitt, 2003; Jones et al., 1998; Murphy et al., 2015).

Co-teaching is a means of scaffolding and is closely aligned with ZPD. Scaffolding is made explicit in the co-teaching model through co-planning, real-time feedback on lessons, and joint reflection on the classroom experience. Through co-teaching, the cooperating teacher becomes aware of the student teacher's "dynamic developmental state" (Vygotsky, 1978, p. 87), those areas that are in the process of formation within the student teacher, the "internal, subterranean, developmental network" (Vygotsky, 1978, p. 91), that is the student teacher's zone of proximal development.

The student teacher also becomes aware of the cooperating teacher's thinking about planning, instruction, and assessment through co-teaching (Sebald, et.al, 2021). According to Vygotsky (1978), "the process of internalization consists of a series of transformations" (pp. 56-57). In the student teaching setting, the higher mental processes targeted for internalization are those that characterize an effective teacher. Key to this process is the transformation of external activities that are "reconstructed and begins to occur internally" (Vygotsky, 1978, p.57). The higher mental processes are not limited to the student teacher. Co-teaching has been shown to have positive effects for cooperating teachers, serving as a source of new insights related to their practice, curriculum development interest and opportunity and willingness to take on new or expanded leadership roles (Gallo-Fox & Scantlebury, 2016).

Another key transformation identified by Vygotsky is the transition between interpersonal processes and intrapersonal processes. In Vygotskian terms, during the co-teaching experience, the cooperating teacher's intrapersonal processes for thinking about instruction become part of the interpersonal (social) process between the cooperating teacher and teacher candidate as they discuss lessons during co-planning or even during instruction. These dialogues supply the conditions for an interpersonal (social) process to become an intrapersonal thinking process for the student teacher (Murphy et al., 2015).

This close alignment of co-teaching at the student teaching level with the definitions of a community of practice and the zone of proximal development suggests a different experience from a more traditional student teaching. Since cooperating teachers and supervisors are in the unique position to have multiple student teaching experiences throughout their careers, it seemed appropriate to turn to these educational professionals to garner their perceptions about whether a co-teaching student teaching experience is qualitatively different from what we have called the "traditional" approach to student teaching.

## Research Questions

The research questions are:

1. Do cooperating teachers and university supervisors who have mentored/supervised student teachers under both a traditional model and a co-teaching model of student teaching report perceived differences in these models with respect to pre-service teacher preparation?
2. What advantages or disadvantages, if any, do cooperating teachers and university supervisors perceive for the student teacher in either a traditional or co-teaching model?

## Method

## Research Design

This study used a mixed methods sequential design. The purpose of the study was to compare participants' perceptions related to two models for student teaching. This study used an online survey that included both selected-response and open-ended questions. The questions asking participants to rate the two forms of student teaching using the Danielson Framework were analyzed quantitatively. Qualitative responses allowed us insight into the possible explanations for any differences identified in the quantitative data. These data were analyzed simultaneously to see if the ratings of the student teaching methods and the open-ended questions yielded congruent data (Cresswell et al., 2003). Following the preliminary analysis of the survey data, we developed a set of interview questions to more deeply explore the findings of the survey.

## Participants

The current researchers are faculty members in two different teacher preparation programs at private institutions of higher education. All cooperating teachers and university supervisors from our two institutions who had mentored/supervised student teachers in both a traditional model and the co-teaching model of student teaching were invited to participate. All teachers had a minimum of three years of teaching experience and were certified in their content/grade area. University supervisors, who are retired educational professionals, serve as adjunct faculty and were trained by our respective institutions to supervise student teachers. All of the cooperating teachers and university supervisors participated in a co-teaching training using the training modules from St. Cloud State University. This training included data from previous research studies demonstrating the value of co-teaching for K-12 student learning, student teacher development, and the experience of the cooperating teacher. Training also included definitions and examples of specific co-teaching strategies and best practices for co-planning as a key component of effective co-teaching (Cayton, 2016). Participants were given expectations regarding co-teaching implementation such as frequency of use, guidelines for observations/evaluations, and documenting co-planning.

## Data Collection and Analysis

We created and distributed an anonymous online survey with 28 questions. Potential participants were contacted by email with an explanation of the study, the informed consent document, and a link to the online survey. After an initial review of survey data, we followed up with interviews of a select number of participants. Reports from the survey were generated and exported into MS Word for qualitative analysis and in Excel for quantitative analysis. Open-ended responses from the survey and interviews were initially coded by each of the researchers independently. Some codes were induced from the data; some were created after the literature review. After this initial round of coding, the researchers shared our codes and discussed and resolved any differences. We then identified themes related to perceptions of how or why respondents favored one model or the other.

## Results

A total of 90 educational professionals (55 cooperating teachers and 35 university student teaching supervisors) were invited via email to complete the survey. Thirty-six of those invited

completed the survey indicating an overall 40% response rate. The respondents include 17 cooperating teachers and nineteen university supervisors. In applying the statistical tests, the respondents were treated as one group. In the survey, the respondents were asked to rate the traditional model of student teaching and the co-teaching model on the 22 components of the Danielson Framework for Teaching. The ratings were Exceptional, Good, Fair and Minimal. When analyzing the responses, the researchers converted these nominal data to numerical values: Exceptional = 4; Good = 3; Fair = 2; and Minimal = 1.

Tables 1,2,3,4 show the results of paired t-tests for each of the components of the Framework for our participants. Significant differences between the traditional model and co-teaching model for each of the components in all four Danielson Domains exist.

**Table 1:** *A Comparison of Traditional and Co-Teaching Student Teaching Models using the Danielson Framework for Teaching for Domain 1: Planning and Preparation*

| Domain 1: Planning & Preparation | Mean Traditional | Mean Co-Teaching | t statistic | p value one-tailed |
|---|---|---|---|---|
| Knowledge of Content and Pedagogy | 3.19 | 3.53 | -3.16 | 0.002 |
| Knowledge of Students | 3.11 | 3.58 | -4.33 | p<0.001 |
| Setting Instructional Outcomes | 2.97 | 3.56 | -5.06 | p<0.001 |
| Knowledge of Resources | 3.06 | 3.64 | -7 | P<0.001 |
| Designing Coherent Instruction | 2.94 | 3.67 | -7.65 | p<0.001 |
| Designing Student Assessments | 2.78 | 3.44 | -5.58 | p<0.001 |

**Table 2:** *A Comparison of Traditional and Co-Teaching Student Teaching Models using the Danielson Framework for Teaching for Domain 2: Classroom Environment*

| Domain 2: Classroom Environment | Mean Traditional | Mean Co-Teaching | t statistic | p value one-tailed |
|---|---|---|---|---|
| Creating an Environment of Respect & Rapport | 3.17 | 3.61 | -3.3 | 0.001 |
| Establishing a Culture for Learning | 3.03 | 3.58 | -5.49 | p<0.001 |
| Managing Routines & Procedures | 2.97 | 3.5 | -3.17 | 0.002 |
| Managing Student Behavior | 2.83 | 3.5 | -4.64 | p<0.001 |
| Organizing Physical Space | 2.92 | 3.31 | -3.39 | p<0.001 |

**Table 3:** *A Comparison of Traditional and Co-Teaching Student Teaching Models using the Danielson Framework for Teaching for Domain 3: Instructional Delivery*

| Domain 3: Instructional Delivery | Mean Traditional | Mean Co-Teaching | t statistic | p value one-tailed |
|---|---|---|---|---|
| Communicating with Students | 3.17 | 3.69 | -4.55 | p<0.001 |
| Using Questioning & Discussion Techniques | 2.75 | 3.5 | -6.5 | p<0.001 |
| Engaging Students | 3 | 3.75 | -6.93 | p<0.001 |
| Using Student Assessments | 2.89 | 3.42 | -3.91 | p<0.001 |
| Demonstrating Flexibility & Responsiveness | 2.78 | 3.64 | -5.55 | p<0.001 |

**Table 4:** *A Comparison of Traditional and Co-Teaching Student Teaching Models using the Danielson Framework for Teaching for Domain 4: Professionalism*

| Domain 4: Professionalism | Mean Traditional | Mean Co-Teaching | t statistic | p value one-tailed |
|---|---|---|---|---|
| Reflecting on Teaching | 3.08 | 3.64 | -3.44 | p<0.001 |
| Maintaining Accurate Records | 2.97 | 3.31 | -3.16 | 0.002 |
| Communicating with Families | 2.53 | 2.94 | -3.25 | 0.001 |
| Participating in a Professional Community | 3.03 | 3.58 | -4.8 | p<0.001 |
| Growing & Developing Professionally | 3.08 | 3.64 | -4.12 | p<0.001 |
| Showing Professionalism | 3.25 | 3.58 | -2.65 | 0.006 |

The survey also included several open-ended questions to allow respondents to add comments about the two student teaching models with respect to each of the Danielson Domains. Additionally, respondents were asked: "If you were to have another student teacher in your classroom/supervise another student teacher what student teaching model would you prefer: co-teaching or traditional? Please explain your choice." Co-teaching was overwhelmingly favored by both groups (cooperating teachers 82.35%; university supervisors 73.68%; combined group 77.78%). The researchers will expand on these qualitative findings and link them to the quantitative results.

## Discussion

With both university supervisors and cooperating teachers, Domains 1 and 3 are most notably positive for co-teaching. For Domain 1: Planning and Preparation, both university supervisors and cooperating teachers rated all components as Exceptional or Good in the co-teaching model. A hallmark of the co-teaching model is the opportunity to co-plan to better understand a teacher's thinking process. These findings corroborate earlier research on co-teaching outcomes (Bacharach et al., 2010; Tschida et al., 2015).

The educators in the study rated all of the components of Danielson's Domain 2

(Classroom Environment) higher for co-teaching. This difference was significant for three of the five components: Establishing a Culture for Learning, Managing Student Behavior and Organizing Physical Space. These findings seem to align with Keeley's findings (2015) where co-teachers perceived that classroom management was significantly impacted by all of the co-teaching models used in their study.

In all components of Domain 3, the co-teaching model significantly outperformed the traditional model. In Domain 3, we see three components where co-teaching received noticeably more positive ratings than the traditional model from participants: Using Questioning and Discussion Techniques, Using Assessment in Instruction, and Demonstrating Flexibility and Responsiveness. Learning to teach with an effective mentor rather than working and delivering instruction as a solo teacher may provide an explanation for improved ratings in instructional delivery for teachers prepared in co-teaching (Guise & Thiessen, 2016).

In Domain 4, we see strong agreement among our respondents in terms of their positive ratings for co-teaching and also in their appraisal of a weakness of both models. Collaboration has been shown to be a notable feature of new teachers who have experienced co-teaching in student teaching (Guise, M., & Thiessen, 2016; Wassell & LaVan, 2009). Our data support these findings. Our participants rated Communicating with Families as the lowest scoring component for either model. While the co-teaching model surpassed the traditional model, only 75% of the educators in this study gave co-teaching an Exceptional or Good rating on this component. Based on these lower ratings, developing prospective teachers' ability to work well with families is a challenge that teacher preparation programs will have to address regardless of the student teaching model they implement.

While the co-teaching model received appreciably more positive ratings overall, a small number of open-ended responses indicated some concerns with co-teaching. One concern that showed up in Domain 1 was that co-teaching may camouflage a student teacher's weaknesses. In support of the traditional model, one stated, "In the traditional model, all of the parts of Domain 1 are HIGHLY VISIBLE! There is no ability to 'hide' shortcomings." Additionally, in their open-ended comments, three respondents indicated that the traditional model provides a more realistic and therefore better picture of what teaching will look like after student teaching. While some favored co-teaching as preparation for working with other professionals and paraprofessionals, these respondents do not see many opportunities for co-teaching on the horizon for new teachers and therefore question its value.

Another response repeated by more than one participant is that the student teaching model does not matter as much as other context variables and overall quality control. Several participants talked about the compatibility and commitment of the teacher and student teacher. For example, one respondent said, "I think both models develop student teacher skills when the cooperating teacher is supportive of the student teacher and gives consistent, helpful feedback." Finally, some participants qualified their support for co-teaching for example by stating that more "preparation for engagement with the [co-teaching] model" was needed in order to maximize co-teaching's effectiveness.

Interestingly, participants would sometimes look at the same aspect of a model and rate it differently. For example, the issue of developing independence and holding the student teacher individually

accountable for the work of a teacher came up repeatedly with conflicting interpretations. One teacher saw co-teaching as giving the teacher candidate "elevated responsibilities" as they are viewed as a teacher from the beginning of the experience and are expected to lead planning later in the semester. Another teacher, however, interpreted working as a partner as a potential way of skirting accountability.

## Limitations

The main limitation of this study is that we rely on perceptions of effectiveness of the models rather than a particular set of outcome measures that more directly assesses a new teacher's preparation for the field. We have, however, limited our participants to educational professionals with significant experience in the teaching field.

We also have a fairly small sample of respondents. The strength of the differences they noted between the models, however, gives us confidence in our findings. Finally, fidelity to the critical aspects of any model is essential to evaluating the effectiveness of the model. Since we did not observe in the classrooms of the teachers we surveyed, we do not know how closely they implemented the respective models. Recognizing potential issues of fidelity, future implementation and evaluation efforts will employ the recommendations of other researchers who have identified strategies to support co-teaching pairs in more fully implementing co-teaching practices (Guise, et.al., 2017).

## Future Questions

A larger sample size and intentionally crafted questions may allow for connections between university supervisors' and cooperating teachers' beliefs about the primary purpose for the student teaching (e.g., simulate the first-year experience or provide opportunities for deep learning) and preference for a particular model. Additionally, the co-teaching model could be further studied to identify best practices for developing the difficult skills of classroom management and communication with families. Since the compatibility between the cooperating teacher and student teacher was raised as a factor, examining co-teaching pairs may yield insight into the contextual variables that add or detract from the student teaching experience. Further research may also look at direct measures of student teacher performance beyond participant perceptions. Finally, longitudinal study of the early-career teachers who have been prepared in the co-teaching and traditional models would allow these teachers' experiences to inform teacher preparation about the salient features of their student teaching experience and the impact on their current practice.

## Implications for Practice

Based on our experience in observing classroom teachers and student teachers, we assert that in many ways the co-teaching model normalizes best practice for the student teaching experience. By emphasizing particular aspects of the model (e.g., co-planning, ongoing feedback and modeling, shared leadership, collaborative reflection), the co-teaching model is simply codifying the strategies that exemplary cooperating teachers have been using and expanding their use to a broader audience.

Based on the particularly strong support for co-teaching in Domains 1 and 3, in the direct comparison of the traditional and co-teaching, and the favorable but somewhat mixed support for co-teaching in Domains 2 and 4, we conclude that a co-teaching model is a preferred model for

teacher preparation. This model could be further improved by addressing specific areas such as clear definition and fidelity in implementation of the co-teaching model and targeted attention for the more universally challenging areas of Domains 2 and 4, classroom management and communication with families.

While it is true that new teachers may not enter the teaching force as part of a co-teaching pair, we posit that the experience of co-teaching as part of an intentional community of practice may have a lasting effect (Sebald, et. al., 2021). The co-planning, co-instruction and co-reflection that are essential to co-teaching may be instilled in the student teachers who experience this normalization of best practice. The opportunity to reflect on teaching practice during teaching practice and through co-planning and co-instruction provides an opportunity for Vygotsky's key transformations from interpersonal processes to intrapersonal processes (Vygotsky, 1978).

If Wassell and LaVan's proposition (2009) is true that co-teaching may impact beginning teachers' conception of what it means to teach, then these novice teachers may seek out collaborators in teaching. Experiencing teaching as a shared responsibility during a co-teaching student teaching can translate into seeking out others such as fellow teachers and students as partners in the teaching and learning process. Our data corroborates the research literature (Duran, et. al., 2020) suggesting that the co-teaching experience helped to build the student teachers' skills for teaching. Perhaps this skill development will also inform the student teachers' schema for being a teacher.

## Conclusion

Our findings indicate that a co-teaching model is perceived by some as less realistic for teaching, but it may also provide better support and preparation for prospective teachers in the student teaching experience. Based on the perceptions of experienced cooperating teachers and university supervisors, the co-teaching model outperforms the traditional model across a number of critical professional development areas. However, the model is not without its drawbacks, and as with any model fidelity in implementation, supportive context, and strong preparation of the participants are key to success.

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