



Teacher education is a deeply pedagogical process rooted in values, ethics, and the social purpose of schooling. Globally, it sits at the core of educational quality and fairness, as research in comparative and international education demonstrates: the training of teachers directly influences students' learning chances, social inclusion, and the democratic aims of schools. Teachers are not simply transmitters of curricula, but active professionals whose convictions, reflective skills, and ability to manage the complexities of classroom life give shape and substance to the educational experience itself.

The pedagogical dimension of teacher education frames teaching as a relational, context-aware, and ethically grounded profession rather than just a set of procedural skills. From a research perspective, this demands robust research methodologies that can critically examine the complex realities of schools and inform evidence-based policies. Equally important is the connection between theory and practice, which helps to bridge the persistent gap between universities and schools.

The contributions gathered in this volume reflect the richness and diversity of experiences showcased during the ATEE Spring Conference 2024, held at the University of Bergamo from May 29 to June 1, 2024. The volume presents 70 selected papers out of more than 300 presented by researchers representing over 40 countries.

This broad spectrum of studies highlights promising directions that can inspire renewed inquiry and concrete proposals aimed at improving contemporary educational systems.

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ATEE Spring Conference 2024

## ATEE Spring Conference 2024

### Teacher education research in Europe: trends, challenges, practices and perspectives

May 29<sup>th</sup> - June 1<sup>st</sup>, 2024  
S. Agostino, Bergamo



Edited by Nicole Bianquin and Francesco Magni





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# BOOK OF PROCEEDINGS

## ATEE Spring Conference 2024

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trends, challenges, practices and perspectives

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**S. Agostino, 2 - Bergamo, Italy**

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# Supporting Active Learning in Online Learning: Creating a Culture of Care

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## Abstract

Online learning is a valuable learning tool for students. However, online courses can present difficulties in engaging students in the learning process. This qualitative research examines the influence of teacher caring behaviors on student engagement. Participants were asked to provide check-in summaries of their learning and any questions they had. Responses were analyzed using thematic analysis. Key findings were that participants sought help on assignments, asked questions on course material that extended beyond the textbook presentation, and reached out to create a rapport with the instructor. Participants expressed that the check-in assignments provided opportunities for self-regulation of learning while demonstrating teacher caring.

**Keywords:** active learning; engagement; online learning; teacher caring.

## 1. Introduction

The teaching and learning context has changed in important ways over the last several decades. One of those is the increasing importance of online or virtual learning to supplement in-person learning in schools. The convenience of virtual, asynchronous learning has enabled many learners to continue studies in situations, such as public health crises, that would have otherwise caused learners to drop out. However, research has provided consistent evidence that student engagement in learning and student motivation are critical to student success. The challenge is to identify and implement ways to increase student engagement and motivation reliably in online courses. Learner-instructor relationships are particularly important in creating effective learning environments and increasing student motivation, but there are challenges to creating and maintaining these environments. Therefore, the purpose of this research was to examine the influence of teacher caring behaviors on student active learning and engagement. It is based on the findings that teacher interactions with students affect student motivation and achievement.

## 2. Literature Review

While we know many of the factors that facilitate learning and motivation in classroom learning, it is not known how students perceive the interaction with teachers to influence their learning. Prior research has found that teacher interactions with students affect student motivation and achievement (McCombs, 2001, 2010, 2015; Umbach & Wawrzynski, 2005). However, many of these studies were conducted with in-person learning. The problem is whether active learning and caring behaviors by teachers can increase engagement in older learners in academic courses online and in-person.

### 2.1 The Importance of Positive Communication

The social interaction component of learning is an important part of the learning context. Interactions that are student-to-student or student-to-teacher are both critical components in helping students stay motivated and engaged. Hammer et al. (2010) emphasized that effective teachers implement active learning strategies and foster positive communication with and between learners.

Communication between teachers and students is an important factor in creating a positive learning environment. Positive communication with teachers in and out of the classroom can increase motivation. For example, Umbach and Wawrzynski (2005) found that the more students interacted with faculty, the more meaningful their learning experiences were. Positive teacher-student relationships contribute not only to increased motivation but also to an increased sense of belonging in the classroom (Wong et al., 2019). Additional research supports the finding that positive student-teacher relationships increase student achievement in the classroom (Kim & Sax, 2009; Kim & Schallert, 2011; McCombs, 2001; Veldman et al., 2013). Kim and Lundberg (2016) found that positive student relationships increased student engagement.

### 2.2 The Role of Learner-Centered Teaching

According to McCombs (2010, 2015), learner-centered teaching moves the lesson away from emphasis on the teacher, common in behavioral approaches to learning, and places it on the student. As Santrock (2021) wrote, learner-centered teaching emphasizes the use of methods that increase student engagement and motivation. Therefore, it is vital that teachers consider ways to put learners at the center of the lesson. Emphasizing positive communication and feedback is one way that teachers can enhance learning through their behavior. Umbach and Wawrzynski (2005) found that teacher interaction can lead to more meaningful learning experiences for students. Both student-to-student and student-to-teacher interaction contribute to increased student learning (Braxton et al., 1997; Hurtado & Carter, 1997; Pascarella & Terenzini, 1991; Stage & Hossler, 2000). According to Astin (1993), student interaction is the key to active learning and engagement, and active learning leads to increased student engagement and sense of belonging (Armbruster et al., 2009; Blumenfeld et al., 2006; Marbach-Ad et al., 2001; Mills & Cottell, 1998; Preszler et al., 2007; Prince, 2004).

### **2.3 Theoretical Framework**

Kort et al.'s (2001) learning spiral model of emotions and learning served as the theoretical framework for this study. This model asserts that teacher interactions with students have a strong effect on student motivation and achievement and that teachers who show their concern for students are able to motivate students to be successful. The learning spiral model is often applied to adult learning, such as for secondary and university students. In the learning spiral, learning intersects with affect so that affect can enhance learning, as in places where curiosity moves one to continue learning, or inhibit learning, such as when frustration or confusion take over and prevent learning from occurring. This research was also based on social constructivism, where active learning is facilitated and scaffolded in a community of practice. For this study, positive affect created through communication and interaction in the classroom or virtual space can lead to increased engagement and learning by increasing motivation and a sense of connectedness.

### **2.4 Research Questions**

The research was guided by three main questions:

1. To what extent would a check-in prompt generate interaction from students?
2. What kinds of concerns would students be writing most?
3. What would students like most about the assignment?

The phenomenon of this research was understanding the usefulness of the check-in prompts for influencing student engagement and motivation in the courses. This research followed prior efforts to increase student engagement through the addition of writing prompts to online courses.

## **3. Methodology**

This qualitative descriptive study explored the responses of participants to check-in assignments in online classes. Check-in assignments were created to provide opportunities for learners to engage with the instructor and the material to be learned, based on recommendations through prior literature (see Armbruster et al., 2009; Blumenfeld et al., 2006; Marbach-Ad et al., 2001; Mills & Cottell, 1998; Preszler et al., 2007; Prince, 2004). Each assignment prompted students to respond to a "Check In" of how they were doing in the course and whether they had any questions. There were two types of assignments. One asked for students to respond to an announcement of the week's assignments with any questions they had. The other was a course assignment that asked students to respond to three questions:

1. What was the most interesting thing you have learned so far?
2. What are you struggling with?
3. Do you have any questions for me?

These check-in assignments were given three to four times over the duration of a course. Because this was an assignment, there was a high degree of completion, over 90% submission of responses to the questions. However, only the responses of those who volunteered were analyzed qualitatively, with a total of 62 assignments that were used in the final analysis. The data collected were analyzed using Braun and Clarke's (2006) thematic analysis of the responses and simple descriptive statistics for the frequency of responses. MAXQDA was used to assist in the coding of the data. The initial codes identified from the data were 110. These initial codes were coalesced into 19 initial themes. After reviewing the initial themes, we identified six final themes: Concerns over Technical Issues, Concerns over Missing Work (Begging for Mercy), Troubleshooting Problems, Success in the Course, and Questions to and about the Instructor. MAXQDA was also used in generating the coding and themes that answered Research Question 3. Two final themes were identified that addressed the reasons participants liked the check-in prompts: Concerns Dealing with Self-Regulation and Teacher Care and Concern.

## 4. Results

In looking at Research Question 1, almost all students in the courses completed the check-in prompts. For those who responded through email, the interaction increased in the two days around the posting of the prompt than the other days. For those who responded through an assignment link, the majority of the postings were in the day the assignment was due.

In answering Research Question 2, the following themes were identified through the analysis:

1. Concerns over Technical Issues;
2. Concerns over Missing Work (Begging for Mercy);
3. Troubleshooting Problems;
4. Success in the Course;
5. Questions to and about the Instructor.

The first theme was that students responded with concerns over technical issues completing their course assignments. For example, one participant wrote, "My computer is worthless." Another added, "I'm having issues with my laptop." Another response was "Power was out due to the recent storms, and I couldn't complete the work."

The second theme was that students responded with concerns over missing work or engaged in begging for mercy. One participant wrote, "I am going to *knock out* all the assignments." Another participant wrote, "I know I did not turn in the assignments." Another participant tried to excuse the delay with, "I want to be thorough in all my assignments."

The third theme was that students responded with troubleshooting problems. For instance, "I would like clarification about the submission." Another participant wrote, "Sorry to bother you, but I do not understand." One participant wrote, "I was trying to make sure this is correct." Another common concern was asking questions about plagiarism.

The fourth theme was that students responded with comments about their success in the course. An example of this is in the comment, "I think I get it now." One participant said, "I'm surprised this wasn't my first thought." Another participant wrote, "I can correct this."

The fifth and final theme was that students responded with questions to the instructor and about the instructor that were focused on building rapport with the instructor. For example, several students asked, "How are you?" One participant asked, "What do you like most about the material?" and another wrote, "What is your favorite chapter?" Another asked, "Why did you choose to be a professor?"

These prompts generated a lot of interaction between students and teachers. Many students responded with, "I don't have any questions." However, there were many other responses on a variety of topics that led to the creation of the themes.

In order to answer Research Question 3, participants were asked to rate their reaction to the check-in prompts on a Likert scale of 1-5, with 1 being "strongly disagree" and 5 being "strongly agree." Then participants were asked to explain their responses. In total, 90% of the participants liked the assignments. Their reasons for explaining their response were grouped into two themes: Concerns dealing with self-regulation and Teacher care and concern.

For the first theme responding to what they liked about the assignment, participants stated they helped with self-regulation. For example, a participant wrote, "It gave me a good review for the chapter." This participant explained that in order to complete the check-in, they would review through the chapter to identify what they liked most or found the most interesting in the chapter. Another participant wrote, "It helped prepare me for other assignments." This participant used the check-ins to consolidate learning and carry over information from one chapter to another. One participant added, "It helped me review where I am in the class." This is a classic example of self-regulation because the learner used the prompts to evaluate their understanding. This statement was similar to another participant's, "It helped me grasp the content and what it meant to me." This learner was using the prompt in order to reflect on the material to be learned and relate it to their life. Finally, one participant explained, "It helped me help me absorb what I was reading." This statement also reflects self-regulation in the explanation that the assignment supported monitoring of learning.

For the second theme responding to what they liked about the assignment, participants stated the assignments showed teacher care and concern. While these check-in prompts seem like simple assignments, they appeared to represent a crucial part of creating a positive climate in the classroom and positive relationships between the teacher and students. Some of the comments were “They showed that you care about your students’ success,” and “It gave me a sense of care from the professor, as if she really wanted to know how we were doing in her class.” Some participants noted that the prompts allowed for freedom to discuss many topics, not just the course material. For example, a participant explained, “I also like that the questions didn’t necessarily have to be about class but our career and educational goals as well!” There were also statements that explained the importance of a teacher-initiated prompt like the check-in assignments. One participant wrote, “They gave me an opportunity to ask you questions and express concerns without having to reach out to you.” Another participant added, “Sometimes students don’t want to reach out because they feel it is not worthy of an email.” This idea was echoed by another participant, “Sometimes you don’t want to go through the process of reaching out to your professor for help.” In other words, participants appreciated that they did not have to initiate the communication and they felt that the teacher’s asking for questions first showed care and concern from the professor.

## 5. Discussion and Conclusion

The results indicated that learners appear to look at these types of assignments as a chance to make a personal connection with the professor. They share concerns that are course-based, but they also reach out to the professor to know more about them. Other participants appear to be concerned primarily with course-related activities. However, it is clear that frequent communication is important in online education. It was also found that students who are active in their learning appear to be more involved in their success. By reaching out to students to ask about their assessment of their own progress in the course, teachers can strengthen student motivation by showing concern for students as human beings. Whether online or in person, students want to be noticed and asking students how they are doing in the course serves the purpose of showing concern while fostering engagement in the classroom.

## Bibliography

- Armbruster, P., Patel, M., Johnson, E., & Weiss, M. (2009). Active learning and student-centered pedagogy improve student attitudes and performance in introductory biology. *CBE Life Science Education*, 8, 203-213. <https://doi.org/10.1187/cbe.09-03-0025>
- Astin, A. (1993). *What matters in college? Four critical years revisited*. Jossey-Bass.
- Blumenfeld, P. C., Kempler, T. M., & Krajcik, J. S. (2006). Motivation and cognitive engagement in learning environments. In R. K. Sawyer (Ed.), *The Cambridge handbook of: The learning sciences* (pp. 475-488). Cambridge University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Braxton, J. M., Sullivan, A. V., & Johnson, Jr., R. M. (1997). Appraising Tinto’s theory of college student departure. In J. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (pp. 107-164). Agathon Press.
- Hammer, D., Piascik, P., Medina, M., Pittenger, A., Rose, R., Creekmore, F., Soltis, R., Bouldin, A., Schwarz, L., & Steven, S. (2010). Recognition of teaching excellence. *American Journal of Pharmaceutical Education*, 74, 1-11.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students’ sense of belonging. *Sociology of Education*, 70, 324-345. <https://doi.org/10.2307/2673270>
- Kim, M., & Schallert, D. L. (2011). Building caring relationships between a teacher and students in a teacher preparation program word-by-word, moment-by-moment. *Teaching and Teacher Education: An International Journal of Research and Studies*, 27(7), 1059-1067. <https://doi.org/10.1016/j.tate.2011.05.002>
- Kim, Y. K., & Lundberg, C. A. (2016). A structural model of the relationship between student-faculty interaction and cognitive skills development among college students. *Research in Higher Education*, 57(3), 288-309. <https://doi.org/10.1007/s11162-015-9387-6>
- Kim, Y. K., & Sax, L. (2009). Student-faculty interaction in research universities: Differences by student gender, race, social class, and first-generation status. *Research in Higher Education*, 50, 437-459. <https://doi.org/10.1007/s11162-009-9127-x>
- Kort, B., Reilly, R., & Picard, R. W. (2001). External representation of learning process and domain knowledge: Affective state as a determinate of its structure and function. In *Proceedings of the Artificial Intelligence in Education Workshops*. AIED.
- Marbach-Ad, G., Seal, O., & Sokolove, P. (2001). Student attitudes and recommendations on active learning: A student-led survey gauging course effectiveness. *Journal of College Science Teaching*, 30(7), 434-438.
- McCombs, B. I. (2001). What do we know about learners and learning? The learner-centered framework: Bringing the educational system into balance. *Educational Horizons*, pp. 182-193.
- McCombs, B. I. (2010). Learner-centered practices: Providing the context for positive learner development. In J. Meece & J. Eccles (Eds.) *Handbook of research on schools, schooling, and human development*. Routledge.

- McCombs, B. I. (2015). Learner-centered online instruction. *New Directions for Teaching and Learning*, 144, 57-71.
- Mills, B. J., & Cottell, P. G. (1998). *Cooperative learning for higher education faculty*. Oryx Press.
- Pascarella, E., & Terenzini, P. (1991). *How college affects students: Findings and insights from twenty years of research*. Jossey-Bass.
- Preszler, R. W., Dawe, A., & Shuster, C. B. (2007). Assessment of the effects of student response systems on student learning and attitudes over a broad range of biology courses. *CBE-Life Sciences Education*, 6(1), 29-41. <https://doi.org/10.1187/cbe.06-09-0190>
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Santrock, J. (2021). *Educational psychology* (7th ed.). McGraw Hill.
- Stage, F. K., & Hossler, D. (2000). Where is the student? Linking student behaviors, college choice, and college persistence. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 170-195). Vanderbilt University Press.
- Umbach, P. D., & Wawrzynski, M. R. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in Higher Education*, 46(2), 153-184. <https://doi:10.1007/s11162-004-1598-1>
- Veldman, I., van Tartwijk, J., Brekelmans, M., & Wubbels, T. (2013). Job satisfaction and teacher-student relationships across the teaching career: Four case studies. *Teaching and Teacher Education: An International Journal of Research and Studies*, 32, 55-65.
- Wong, T. K. Y., Parent, A., Konishi, C. (2019). Feeling connected: The roles of student-teacher relationships and sense of belonging on future orientation. *International Journal of Educational Research*. 94, 150-157 <https://doi:10.1016/j.ijer.2019.01.008>