

Teacher-Researcher Collaborations: Negotiations of Research Practices in School

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Abstract

This paper focuses on the relationship between classroom teachers in secondary educational institutions and researchers affiliated with educational research departments housed in postsecondary institutions. The research analyses the negotiation between teacher and researcher collaboration in co-design-based research. A case study of teacher-researcher collaborations is presented. From the data, selected episodes from video recordings of teacher, student, and researcher interactions are analysed, supported by interviews and observations. A qualitative methodology is adopted, drawing on embodiment and sense-making interactions analysis. Three levels of negotiation are considered: a) the research and researcher presence in the classroom; b) the research's influence on the teaching practices; and c) the impact of the research practices on the educational community. Starting from the three dimensions analysed, we reflect on considerations for implementing teacher-researcher collaboration in co-designed research projects.

Keywords

sense-making; embodiment; collaboration; teacher-researcher interactions

Introduction

This paper focuses on the relationship between classroom teachers in secondary educational institutions and researchers affiliated with educational research departments housed in postsecondary institutions. Teacher-researcher collaborations are joint in co-design-based research (Svihla & Reeve, 2016). This is a powerful approach to developing authentic learning environments grounded in both theory and practice (Gomez et al., 2018). Indeed, researchers are increasingly called to collaborate with communities to design and conduct research (Zamenopoulos & Alexiou, 2018). Co-design is widely adopted in educational settings, such as resolving social issues, analysing technological and pedagogical innovations, or improving learning and teaching processes.

In general, collaboration is necessary to deal with complex social, political, environmental, educational, and technological issues, as shown today by the Covid-19 pandemic. No one

person has the knowledge and skills to understand and solve complex problems, and a different perspective is needed to empower people to participate actively in society. Collaboration between school and university is fruitful and requires more research to be better implemented. Interprofessional collaborations analysis is a more researched topic in management, sociology, or education, mainly related to the use of new educational technology.

In this paper, we focus on the subjective experience of the interactions between teachers (including the principal), students, and researchers in a co-designed research project. The research question asks: How are research practices negotiated in the co-designed research project between teacher and researchers?

A case study of teacher-researcher collaborations in a postsecondary institution will be introduced. Then the dimensions that shaped the negotiation between teachers, students, and researcher are examined. Three levels of negotiation are considered: a) the research and researcher presence in the classroom; b) the research's influence on the teaching practices; and c) the impact of the research practices on the educational community. Some implications are considered to improve co-designed research projects.

The Culture of Teacher-Researcher Relationships

Teacher-researcher collaborations explain how and what teachers and researchers learn from engaging with inquiry in the learning context. Teachers and researchers can learn together, oriented toward the shared inquiry, building a joint space of possible understanding between them. Both of them are in a learning position, open for reciprocal guided participation (Rogoff, 2003): The collective engagement in the interaction and the contextualised practice gives meaning to their exchange. Indeed, working together, teachers and researchers may learn to “see” and interpret structural affordances and constraints in new ways.

Both learn how to become a recognised member of the other's community. Teacher and researcher can be considered as newcomers in the respective fields (Wenger, 1998): The teachers discover, often for the first time, the research methodology, structure, languages, and related issues such as research ethics and privacy protocols, etc.; the researchers are a new member of the school dynamics, becoming a regular guest for some time.

In particular, for the teacher, developing research attitudes and practices offers an opportunity to acquire knowledge and skills to be directly applied in the daily classroom teaching, improving their decision-making (Cochran-Smith, 2005) and that can positively influence their reflective capacity.

The researcher in the co-designed research project can play an intermediation role (Wenger, 2011), creating new connections between participants and communities, shaping interpretation and meaning. Being an intermediary is not a simple role. It requires the implementation of translation, coordination, and alignment of processes and practices between perspectives, often playing on the subtle thread of ambivalence between the participants. Some of the assumptions developed in the specific scholastic setting can scaffold researchers in reaching a higher understanding of practice situated in the cultural context (Inoue, 2010).

Formal and informal conversation between teachers and researchers becomes the privileged place to carry out an explicit negotiation and redefinition of shared values (Clandinin & Connelly, 2000). This interprofessional collaboration must be based on shared and transparent

expectations in a spirit of care, trust, and connectedness. For many reasons, the teacher-researcher collaboration can also be filled with tensions and frustrations due to implicit requests, less- or more-aware expectations, desires, and aims. Based on general availability for communication, teacher and researcher can interact to progressively build their mutual sense of commitment to the shared final results, which have to be negotiated regularly.

Different variables can influence teacher-researcher collaborations, such as the administration, the digital resources, the funding institution, etc. The students play a central role in the co-designed project, providing active testimony and serving as actors in the research process. Areas of the proximal development zone can be identified in the mutual collaboration between teacher, students, and researchers (Augustsson, 2020).

Finally, technologies can play a part in bridging space and time to facilitate co-design: “providing the resources necessary to prompt, support, and sustain, this collective and collaborative inquiry through design” (Disalvo & Disalvo, 2014, p. 795). In the following, we focus on the methodological implications of researcher and teacher collaboration.

Qualitative Research: Teacher-Researcher Interaction

Researchers and teachers are often involved in a research approach experienced directly inside the educational setting or the classroom. In educational literature, we often find teacher-researcher collaboration involving formative interventions. The formative intervention is oriented to obtain social practices transformation, developing new concepts in a generative circular process. Examples of formative interventions are the Fifth Dimension, the Activity Clinic, and the Change Laboratory. These interventions are based on the “surprise” element, where the resistances, the tensions, and the contradictions are relevant and crucial for starting the individual and collective transformation (Sannino et al., 2016). The participants are confronted with a challenge object of daily lives, analysed and expanded by broadening the conceptual basis or completely reshaping it (Engeström & Sannino, 2010). Negotiation is at the core of the transformative process, supported by the researchers in a facilitator role: The participants keep the leadership for their change. In light of the specificity of this approach, the results can be transferred to other settings but only as a point of departure to generate appropriate solutions in the new context.

Qualitative investigative research has specific features, according to Denzin and Lincoln (2018). The researchers and the participants act as multicultural subjects, involved in the interpretation process to generate new knowledge. For example, participatory action research aims to solve concrete problems through the community’s involvement in the investigation, combining research and practice (Torre et al., 2018). The interpretative paradigms connect the researcher to specific methods for collecting and analysing empirical materials: Methods such as interviews and observations, for example, support a personal relationship.

Adopting an ecological paradigm into qualitative research means focusing on the relationships that structure the phenomenon investigated within its natural context: The research becomes a narrative investigation of the everyday context and the meaning given to the action (Erickson, 2018). Valsiner et al. (2017) discuss the methodological need today for qualitative research to preserve the whole, which has to match the complexity and dynamicity of human psychological phenomena. According to the authors, complex psychological phenomena need to be analysed considering the following axioms: their existence in time; the mediation of the sign, which is negotiated continuously and modified; the inseparability of the phenomenon from the context;

the constrained range of possible experiences in the immediate future; and the enabling or blocking conditions of the current phenomena. All these conditions put the methodology at the centre of knowledge creation.

In light of these considerations about teachers' and researchers' collaboration, a case study of qualitative research in a secondary school is presented in the following section to stress the negotiating process.

Case Study

Context

The context is a secondary school research project—in a peripheral and socioeconomically stressed area. A voluntary group of about 15 teachers inside the school expressed to the principal the willingness to increase collaborative learning pedagogy. Their motivation was based on continued conflicts and students' aggressive behaviours during the lesson time. Through a funding programme sustained by a local institution, five researchers in educational sciences situated in a nearby university proposed scaffolding the implementation of collaborative learning methodologies (such as jigsaw, peer-tutoring, and similar group activities). The project was carried out from September 2017 to September 2020. The project combines several steps: a) an initial familiarisation of the researchers with the school setting; b) the diagnosis of existing collaborative teaching practices already implemented and the expectations of the voluntary teachers' group; c) the sharing of theoretical and formative resources; and d) the co-design of pedagogical activities and their implementation in the classroom.

The data were collected as part of the project carried out at a REP+ high school (a label of a socioeconomically disadvantaged area according to the French indications), funded by the joint program between the Structure Fédérative d'Études et de Recherches en Education de Provence (SFERE-Provence, FED4238) and Rectorat d'Aix-Marseille - Délégation Académique à la Formation et à l'Innovation Pédagogique (DAFIP). Participants gave written permission for their photos to be used in published research related to this project. The data are anonymous.

The data collection included a regular monthly meeting between researchers and teachers' group for regulation; recurrent individual interviews with the teachers, administrative staff, and principals; recurrent observations and video recording in the classroom; institutional documentation; and students' performance indicators. The collecting process aimed to trace a holistic improvement in the educational climate. After three years, a significant improvement of the students' classroom behaviour was reached, increasing students' performance and teachers' well-being.

Data Analysis

Our study's analytical framework draws on iterative interaction analysis frameworks (Goodwin, 2000; Streeck et al., 2011; Theobald, 2012), focusing on embodied interaction of the teachers and researchers' role in the co-designed research project (Mondada, 2019). In the educational and psychological literature, more attention is given to understanding human activity due to representations of the world connected to a context (e.g., Dourish, 2004). For this, it is interesting to link the sense-making to the contextualised experience of the body-environment system. Indeed, the body is on one side the frame of reference in which all our

experiences take place; on the other, it becomes, through the senses, the main link between the mind and the world (Lakoff & Johnson, 1999). Topical episodes from video recordings of teachers, students, and researchers' interactions in the classroom were analysed (Linell, 2009). Extracts from interviews and observations were selected to carry out a detailed analysis, the findings of which will be discussed in the next section. The original dialogues were in French and have been translated by the author.

Dimensions

Three levels of negotiation are considered: a) the research and researcher presence in the classroom; b) the influence of the research on the teaching practices; and c) the impact of the research practices on the educational community.

A) The Research and Researcher Presence in the Classroom

Concerning the negotiation of the research and researcher presence in the classroom, three typologies are semi-transparent, denial or closeness, and full-transparent.

Semi-Transparent Negotiation

After one year of work with only the teacher group in the second year of the project, the researchers decided to collect data in the classroom to monitor the teachers' collaborative learning. Besides regular classrooms, a special "collaborative" classroom was equipped to facilitate the teachers' work for some activities.

Here we propose a focus on the first day of collecting data. The researchers were already installed in the classroom with the cameras in action when the group arrived. The session aimed to start, for the first time, the so-called cooperative council, or student council. It was a proposal of discussion and listening about the students' lives to engage in democratic participation. The teachers decided to implement it as a weekly one-hour session throughout the scholastic year. The teachers started to introduce the methodologies, after a quick presentation of the researchers. The main collaborative research project was already discussed in the classroom by the teachers, so they did not see the necessity to discuss it further, considering the short time constraint for the activity. The students were indirectly aware of the collaborative project research process, considering the parents' approval of recording. Simultaneously, the researcher (the author) tried not to disturb the activity and to enter immediately in collecting the data (Figure 1).

Figure 1(a; b)

The researchers in the classroom during the session (in the circle: the researcher; the camera and the microphone on the table).



However, right after installation, students quickly questioned the researchers' role and the research activity (extract 1).

Extract 1:

Teacher: So, the student with the role of the “secretary” role will take note during the session, and they will write the minutes of the cooperative circle. There is the role of “sound guardian,” to avoid chaotic talking, and the role of “congratulation guardian” to collect points to share.

Students: Sorry, why are we recording?

Teacher: Why we are recording? To list what we are saying indeed.

Student: Will it be online? On YouTube?

Teacher: No, I have explained, we are video recording the session to return on this activity, on the way to work, to see what works, to evolve. Is it clear for all? So, we have two represented from the School of Education.

The student to the researcher: What is a School of Education?

Teacher: You raise your hand before talking. Where the teachers are trained, so they will watch how we work to train better other teachers.

The students expressed the need to receive more information to understand the data collection phase and to become familiar with the researchers' presence. From the episode, it was evident that the project was not negotiated enough with the students. More information was necessary for them to build an interpersonal bridge with the researchers.

The same dynamic was also experienced between the teachers and the researchers during the first monthly meeting one year before. Indeed, when the researchers proposed to audio-record the session with them, one teacher questioned the research protocol presentation saying, “*We are not here to be your data source.*” The episode was discussed with them. Teachers shared their positions. The episode was crucial to building mutual respect and agreement about the shared aims. Indeed, teachers recognised the researchers' willingness to collect data to monitor their work, reframe it, and come back to them with empirical evidence as materials for reflection.

Denial or Closeness of the Negotiation

During data collection, the negotiations of the research and researcher practices could be of denial or closeness. Indeed, even if the research process was well introduced by the teachers and the students assisted in different video-recording sessions done by the researchers, the research process or researcher presence was not always accepted.

In this episode (Figure 2), the researcher was recording with a hand-camera, which was already familiar to the classroom from preview video-recording sessions. Indeed, the researcher intended to explore the group dynamic concerning the teacher's task, present in the classroom. One girl (in the circle in Figure 2a) observed the researcher with suspicion, and then she put her hand as protection for her face (Figure 2b). In the meantime, she didn't join in the group activity, distracted by the researcher's activities.

Figure 2(a, b)

The reaction of one girl during researcher video observation



Full-Transparent Negotiation

The data collection was performed during the second year of the project. With the increasing number of video-recording sessions, the research practice and the researchers became transparent. The researcher was immersed in the observation, and the participants ignored the research process, as we can see in Figure 3.

Figure 3(a, b)

Teacher and students while the researcher was recording the session (in the circle: the microphone on the table)



In this section, we have focused on the research and researcher presence in the classroom. The three-level analysis (Semi-Transparent Negotiation; Denial or Closeness of the Negotiation; Full-Transparent Negotiation) provides a focus on the presence of the researcher in the classroom during the collecting data process.

B) The Influence of the Research on the Teaching Practices

In this second dimension, we focus on the effect of the research practices on the teaching process. Indeed, the three-year process was indirectly oriented to professional development about collaborative pedagogies. Besides the specific competencies about the collaboration, the active teacher engagement in the co-designed project helped the group transform and extend their teaching practices. Here, some second-year focus group extracts show the teachers' reflections about the project and their research engagement.

Extracts from the teachers-researchers focus group (middle of the second-year project):

Professor 1: So, yes, yes. It is a relatively short time to see pre-and post-results. Entirely only what I think is that we notice that there is always a test period in some students when there is a new teacher. Now there's more focus on their dynamics.

Professor 2: The students joined immediately in the project. I didn't get a comment like "No, I don't want to be there on Friday." In terms of behaviour, they are all very supportive of it. If there is one who begins to do anything, they take them back. There are very positive points like timid students who speak more and more during the cooperative council. So, since the students are united, in the collaborative council, they allow themselves to say more when things are not going well, advise others, etc.

Professor 3: Yes, if we compare to other classes, in the classrooms involved in the project, the level of sanction is lower. Mine is the only class with no sanction, no deduction, no exclusion, and minimal delay. At the level of absentee students, we have one absentee student but related to health problems. Three students were followed by educators, including one who dropped out who played video games a lot. I realise that through the collaborative council the students are really at the heart of the class. They all have their place in the classroom.

Professor 4: I did not expect that, and thanks to the collaborative council we were able to set up working pairs. They manage to help each other, and after that, there was a lot of questioning. It took a long time; it took at least seven sessions for them to get to work and finally find solutions.

As we can read, the teachers observed the classroom dynamics and collaborative learning in the students' interactions, sometimes adopting the technical language of the research ("*see pre-and post-results*"; "*Yes, if we compare to other classes*"), learned by the project's exposition by the researchers. The teachers developed a critical observation of the students' classroom ("*it took at least seven sessions for them to get to work and finally find solutions*"), searching for interpretation, explication and strategies that positively influenced their reflective capacity. The research attitude and the specific knowledge developed found space and occasion, adapted and activated in the daily teaching practices (Cochran-Smith, 2005), seeking practical solutions to real problems.

C) The Impact of the Research Practices on the Educational Community

Research practices are usually proposed for a fixed slot of time in an educational institution. In the project here described, the project is implemented for three years. Considering the long term, the researchers became familiar figures for the teachers and, in different degrees, the students and the administration staff. They could play a mediational role, facilitating educational practice transformation, as shown in the following extract from the interview with the principal. Extract 1 offers the perspective of the principal about the research and the researchers involved in the project.

Extract 1 from the principal's interview (start of the third and last year project):

Principal: The project created some affinities between the teachers. The project did not generate tensions, or it was minimal with two teachers outside the project who questioned it. The teachers participating in the cooperative councils had the intelligence to explain, not to deny the difficulties, that the project was not the miracle solution to the problems but that we were trying to find answers. (...) At the beginning we looked a little like a bankrupt dog, it's normal, we were not in training, we were not in inspection, we were in something else that we had to create. Thanks to you for knowing how to adapt your vocabulary to them. Once they got in there, we had a relationship of trust, and things worked. (...). Everyone had a different image on the project at the start. When I made the parallel with another project, everyone knew what they wanted, why they were doing it, how they wanted to do it, it was impressive. In this participative project, all was different. The teachers trust me in starting this collaboration with the university. As the project was unfolded and the new relationship with the university was

developed, it makes sense. There is no disappointment, there is no frustration, that was it merely logical, we are in construction, and some have taken it enormously, others less, but I think it is linked to the project itself.

The researchers were recognised to have managed to create connections between the teachers' group. The close interactions with the researchers were valorised and appreciated by the teachers and the principal. Simultaneously, the principal was also critical about the research activity, which only partially reached its outcomes, as in this second extract.

Extract 2 from the principal's interview (start of the third and last year project):

Principal: To come back to this once again, because the school's primary purpose is to transmit subject knowledge, the school climate is one of the conditions, but we cannot be satisfied with that. Teachers are generous with the evaluation of the students. However, by ensuring that the students succeed, I fear that teachers can involuntarily lower their assessment criteria. The project and the collaborative learning must be used for the students' performance. Now that the school climate is improved, how could we go further in terms of didactic results and support the teacher teams to improve and be better?

Here the principal pushes the research's focus on the students' performance, expressing the wish to improve their evaluative score through quality work by the teachers. The principal showed his willingness to use the research and orient the outcome from the research design. The researchers' main risk in an intermediary role is the conflict between a centripetal tendency that pushes them towards total adhesion to a community and a centrifugal movement that makes them seem intrusive by not being useful members the community.

Discussion

Starting from the three dimensions analysed in the case study, we offer some reflections on implementing teacher-researcher collaboration in the co-designed research project. About the first dimension, research and researcher presence in the classroom, the student questions the researchers' role openly. Indeed, the research process introduces a new contextual configuration (Goodwin, 2000). The moment-to-moment arrangement of these various semiotic fields must be negotiated until it becomes fluid and transparent, without compromising the teaching and learning process.

About the second dimension, the research's influence on the teaching practices, the research attitude could open a positive dynamic in the teachers' professional development (Hmelo-Silver et al., 2016) with the possibility to introduce innovation in pedagogical practices. If not the project's direct aim, this influence has to be meta-discussed between the researcher and the teacher, raising awareness on the path of a reciprocal zone of proximal development. Promoting a dialogical collaboration between researchers and teachers means that both join in a discourse community (Sfard, 2019), where meta-level learning helps make sense of the activity. In a polyphonic attitude (Bakhtin, 1986), teacher and researcher have to celebrate a genuine engagement and respect, which imply mutual transformation. Sfard alerts us to the possibility of "incommensurability" between the interlocutors. For this, it is essential to accept the "inner logic" of the interlocutor's speech, making sense of the exchange's invisible perspective. Yes, teachers and researchers in their collaboration have to build a "meta-discursive space," with an explicit commitment to seek mutual understanding but not necessarily agreement.

Also, the teacher and researcher collaboration must not be hierarchically structured. According to Matusov and Pease-Alvarez (2020), a vital feature of a collaborative approach, and also an essential aspect of critical dialoguing, is its horizontal organisation. Teachers and researchers have to engage in predominantly horizontally oriented interactions where they fluidly share roles and responsibilities in each other's learning, with the impossibility of imposing the collaboration. This attitude preserves a critical and authentic dialogue by all the participants, recognising the problem and preserving the freedom to agree or not about the modalities.

Regarding the third dimension, the impact of the research practices on the educational community, we stress the possible constraints, implicit assumptions, and institutional pressure that could compromise the collaboration. The challenge is to sustain an epistemic inter-collaborative community as a learning community with flexible expectations and positive relationship nurtured through mutual sharing in a perspective of inclusiveness. Inside this relationship, the teacher's personal and emotional experiences, students, and researchers have to be valorised as funds of identity (Esteban-Guitart, 2016). The interpersonal connections support the transformative identity process. The intersubjective confrontation could mobilise "dark funds of identity" (Charteris et al., 2018), defined as the problematic experiences that individuals bring with them to make sense, and "existential funds of identity" (Poole, 2019), defined as the positive and negative experiences to grow as human beings.

Finally, we can consider that involvement in a co-designed project could be supported by a new type of reflections—a diffractive perspective as more-than-*reflective practice*. From the Latin verb *diffringere*, which means to break apart, like the diamond with different light, the diffractive reflections break consolidated patterns. This concept stresses more the becoming process of change: "diffractive methods, therefore, illuminate the fluid and ever-evolving process of world-making in which phenomena are constituted through their material entanglements" (Hill, 2017, p. 3). The teachers, the administrative personnel, and the researchers can address the educational issues in an inclusive perspective, challenging their personal and professional identity positions.

Conclusion

The Covid-19 pandemic shows us the complexity of educational settings in daily activities. Co-design among teachers and researchers is a powerful approach to implement a new logic of collaboration, co-learning, and mutual positive influence. So, Covid-19 is an urgent and disruptive learning or downfall challenge (Suoranta, 2020) that invited us to share the reflections and individual contributions on the value of scientific research.

Teacher-researcher collaborations can help us better understand teaching and learning processes, improve practices, and seek practical solutions to real problems in the educational community. The singular teacher-researcher collaboration can be shared with other educational communities or, also, on an open online space to valorise the joint reflections. For one example, the ongoing French project "Teacher-Researchers" uses artificial intelligence to analyse teachers' and researchers' collaborative open research about educational issues—<https://profschercheurs.cri-paris.org/en>). At the same time, the value of collaboration between teachers and researchers has to be recognised in the singularity of their relationship: Teachers, researchers, and students are involved in the process of learning and teaching as unfinished and inherently open-ended events-in-the-making (Roth, 2013), which have to be approached not as static categories but in terms of the movement itself. The event is open toward the future, unpredictable, and an engine of new intuition. This perspective has methodological

implications: “[F]rom the articulated perspective that seeks to capture the event-in-the-making, we have to research the structure of the world as both given and as something in the course of being achieved” (Roth, 2013, p. 35).

In conclusion, we join Swennen’s (2018) suggestion that teachers, as practitioner-researchers, need to be brave and introduce more diversity and variety in educational research, with continuing discussion with academic researchers. Finally, we stress the students’ voice in the co-designed research project; their perspectives have to be seriously considered and included as symmetric, authentic, and agentic contributions.

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