

# Moments With Jacques Rancière: Sketches From a Lived Pedagogical Experiment in an Elementary Science Classroom

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**Abstract:** The work of Jacques Rancière has become rather popular of late, with a series of high-profile advocates. In this article, we reflect on an elementary classroom and an experiment with pedagogy inspired by Rancière's (1991) text, *The Ignorant Schoolmaster*. The authors discuss the text, outline a 20-lesson response that emerged from the study (focusing on reading-as-inquiry), and highlighting some of the possibilities, tensions, and ambiguities involved. The article concludes with discussion of how we sought to make sense of, and redistribute, our roles as science teacher-researchers by embracing teaching, will, and instability. We suggest becoming *ignorant schoolmasters*, wandering beyond the *domain of the sensible*, as we struggle to come to different terms with our political work.

**Résumé:** Les écrits de Jacques Rancière ont récemment connu une certaine popularité, soutenue par de nombreux partisans très en vue. Dans cet article, nous nous penchons sur une expérience réalisée dans une classe de primaire, dont les aspects pédagogiques s'inspirent du Maître ignorant de Rancière. Les auteurs examinent le texte et produisent un ensemble de 20 leçons (centrées sur la lecture-enquête) dont ils soulignent les possibilités, les tensions et les ambiguïtés. L'article se termine par une analyse des façons dont nous avons cherché à comprendre et à redéfinir notre rôle d'enseignants et de chercheurs scientifiques, en tenant compte de « l'enseignement », de « la volonté » et de « l'instabilité ». Nous proposons de devenir des maîtres ignorants, qui vont au-delà du domaine du sensible pour finalement repenser notre travail politique.

The work of the French philosopher Jacques Rancière has become rather popular in academic education circles of late. Patti Lather (2012), for instance, encourages educators to move from stultification and authoritarian practices by using Rancière's work to focus on the empowerment of students in moments of radical equality. Claudia Ruitenberg (2008), similarly, turns to Rancière when writing exuberantly that “if democracy really matters, then those who have a voice in educational systems will also be challenged to see the structures preventing democracy from entering and equality from asserting itself” (p. 17). Gert Biesta has written extensively on Rancière's notions of emancipation, politics, democracy and education (see, for instance, Biesta, 2013). Juha Suoranta (2014) concluded his entry in the *Encyclopedia of Philosophy of Education* by writing that Rancière's notion of radical equality “poses an extreme radicalization of the

fundamentals of the Enlightenment. And therefore Rancière's notion on radical equality and education should belong to the key readings of all students of critical education" (p. 4). Jesse Bazzul (2013) noted that "Rancière politics and radical notion of equality can provide [science] educators with new political possibilities" (p. 245).

Although Rancière's work has stimulated rich discussions in the philosophy of education, and more recently within aesthetics and art, few have explored more practical and applied applications of his work. This is the approach of this article: as researchers and pedagogues we ask, How might we teach with Rancière? What might such a response entail (or not)? What are some of the tensions and ambiguities involved? We openly acknowledge that there is discussion as to whether teaching for emancipation and/or radical equality is even possible, especially within a school system that has become increasing curriculum dominated and assessment led. However, with a pragmatic sensitivity toward philosophy-in-action, the provocation of Rancière, and considerable enthusiasm, we set out on what might optimistically be called an experiment and adventure.<sup>1</sup>

This experiment is set within a particular multilingual and multiethnic Grade 6 suburban elementary science classroom in Ontario, Canada. Throughout, we offer reflections upon our *moments-with-Rancière*, in curriculum planning and classroom teaching. In this regard, our reading of Rancière is pedagogical—we wish to have a conversation about what it might mean to respond to Rancière in the form of pedagogy. This is not with intent to replicate or transmit his philosophy into practice (which, if even possible, would probably be antithetical to the philosophy itself) but, rather, to explore what it might mean to live (better) with Rancière as science teachers (as well as his increasing high-profile and vociferous scholarly supporters). To play with the language Rancière uses, our goal is to "see what can be done under the supposition of equal intelligence."

Our engagement is based on just one of Rancière's texts—*The Ignorant Schoolmaster* (Rancière, 1991). Though this text explores an approach called *universal teaching*, it is important to stress from the outset that reading this text in ways that could readily contribute to contemporary classroom-based practices is far from straightforward. Rancière, in this regard, is illusive—Caroline Pelletier (2012) describes him as educationally *timeless* and *placeless*. Though he offers a philosophical analysis of contrasting pedagogical approaches to emancipation and equality, he does not provide a description, evaluation, or even gesture toward the complexities of these ideas in practice. Nevertheless, his logic offers teachers a stark choice between education that is on one hand emancipatory (and politically more desirable) and, on the other, stultifying (politically less undesirable). This sharp boundary is difficult to ignore as a practitioner. It is the explicative traditional school-based practices that, Rancière argues, make students intellectually dependent upon the teacher. As Galloway (2012) noted, "This approach makes school a place where children grieve over the loss of their [intellectual] ability" (p. 171). Needless to say, we would not wish our students to be unduly grieving in this way and therefore hold tightly onto possibilities of teachers as agents for change.

As practitioners, there is, perhaps, an ever-present danger of reading Rancière as offering an answer to political engagement and social change. The antagonistic and oppositional nature of his writing seems to encourage this in some ways by offering choices. Here, in contrast, we seek to embrace Rancière as an open question and try to remain sensitive to our positioning and the ways in which "rationalist assumptions" can "give rise to repressive myths" (Ellsworth, 1989, p. 297). In the concluding sections, we reflect upon our experiment and the associated hopes, relationships, contradictions, and ambiguities that emerge and the prospect of living with them.

## THE IGNORANT SCHOOLMASTER

In *The Ignorant Schoolmaster*, Rancière (1991) describes a method of teaching devised by Joseph Jacotot. When faced with teaching Flemish to students who knew no French without knowing any Flemish himself, Jacotot had students read and recite a dual-language classic, *Telemaque*. Through close attention, comparison, and verification, the students learned to fully comprehend the book's contents and thereby learned to write French. Rancière brings attention to Jacotot's method as an illustration of teaching to emancipate, which is placed in contrast with teaching situations that stultify students through unequal relationships between teachers (as knowledgeable) and learners (as lacking knowledge).

Rancière “often privileges the linguistic character of the intellect” (May, 2008, p. 57), such that anyone who has learned to speak or communicate in language has the capacity to engage with the world and its objects in a meaningful way. The same intelligence is at work in everyone, in all of the productions of the human mind, and as human beings, our ability to speak and communicate with one another makes us capable of understanding and reasoning with one another (Rancière, 1991, p. 18). Rancière reads emancipation as using one's intelligence under the assumption of the equality of intelligence and for students “to know that they are capable of finding out what they don't know as the teacher is.” The teacher's task is to have students attend “to their work so that their equal intelligence will have an opportunity to find expression” (May, 2008, p. 57).

For Rancière, teaching for intellectual emancipation and democracy is sharply juxtaposed with traditional pedagogy, which is equated with the replication of inequality in the dependent student–teacher relationship. This logic of pedagogy (even within the context of more progressive critical pedagogies) typically contains a central contradiction in that the act of emancipation perpetuates dependency on the teacher (the emancipator), even as it is oriented toward equality. That is, traditional pedagogies are based on a fundamental inequality between the emancipator and the one to be emancipated. Rather than starting with assumptions of inequality, Rancière (1991) argues that we should start with *radical equality* by recognizing equal intelligence from the onset. In the processes of schooling, Alex Means (2011) suggested that this involves becoming artists of citizenship. He wrote,

Pedagogy for the art of citizenship would demand recognizing the autonomy of teachers while at the same time working to create the conditions that would enable students to develop their intellectual and artistic potentiality in common so that they may refuse the position assigned to them to make themselves of some account by speaking, writing, and acting together in ways that disrupt and transform unequal and unjust relations within public life. This would mean that intellectual emancipation as equality in common would become the basis from which to imagine an “improper” form of education for democratic citizenship. (p. 45)

## SKETCHES FROM A LIVED PEDAGOGICAL EXPERIMENT

In 2012, as teacher/doctorate student and supervisor, we embarked on pedagogy for the art of citizenship through a teacher-researcher project (Cochran-Smith & Lytle, 1993). The project is documented in more detail elsewhere. Rancière's distinct emphasis on text to engage one's own intellect as an act of intellectual emancipation guided the design of the study to focus on authentic opportunities for students to read in science.

In agreement with science educators such as Norris and Phillips (2002), we believe that pedagogical practices must communicate to students the fact that “the primary access to scientific knowledge is through the reading of text” (p. 237). As such, developing science literacy in students involves “including an essential role of text in learning science” (Norris & Phillips, 2002, p. 231) by giving students opportunities to cultivate and use “interpretive strategies needed to cope with science text” (p. 231). It is through experience working with text that students foster the understanding that “texts, although fixed, invite and allow interpretation and reinterpretation” (Norris & Phillips, 2002, p. 232). The science education literature speaks to the ways in which literacy practices, such as reading and writing, are inextricably linked not only to the nature and fabric of science but also to learning science. For instance, researchers such as Romance and Vitale (1992); Guthrie et al. (1998); Phillips and Norris (2009); Fang and Wei (2010); and Ødegaard, Haug, Mork, and Sørvik (2014) have studied ways to integrate science and reading practices.

In contrast to such studies, this is a study in the tradition of teacher research in that it has as its goal not only the integration of literacy practices in science but the intellectual empowerment, autonomy, and freedom of the student participants as they learn science. The concept of social justice and social action within this emancipatory action research framework is interpreted nontraditionally based upon the philosophical underpinnings of the study, which holds the view that emancipation can never be a social logic (Rancière, 1991). The design of the unit aimed to foster an environment of emancipatory pedagogy by first attempting to enact the presupposition of *equal intelligence*; second, redefining the relationship between teacher and students; and, third, redefining the relationship between students and their object of study, science. This meant that the curriculum supported in principle the fact that all language is equal in status for learning and thinking and equal access to text for English-language learners and non-English-language learners; that is, students freely chose their own text resources.

The classroom (teacher and students) was studied as a case, focusing on participants’ behaviors and reflections exhibited during the intervention. Our view of case study in this project is influenced by Stake (2000) and VanWysberghe and Khan (2007), who argue from the perspective of case study as an object—that is, not using case study as a methodological choice but as a choice of what is to be studied. This stance allowed us to explore the dynamics of the classroom environment by converging the data gathered from multiple sources throughout the study.

A variety of qualitative data was gathered throughout the science unit that consisted of 20 lessons. Video observations of student–teacher conferences were digitally recorded to document what occurred because the researchers were active participant in the study and fully engaged in the experience. Video interviews were conducted at the end of the unit and were unstructured and informal using a general interview guide outlining the topics for questioning to ensure uniformity from one interview to another (Goodwin & Goodwin, 1996). Documents (journal reflections, questionnaire reflection, journal work, research process rubric) were personal documents that were first-person accounts of events and participants’ experiences.

### Planning With Rancière

Pedagogies have clearly developed since Jacotot’s time. We do not readily conceive of ourselves as master explicators, and we suspect that this is the case for most teachers who now readily identify with child-centered and constructivist teaching. We both have backgrounds in science

and education and in this respect are not ignorant of progressive pedagogies. We also recognize that there is no absolute demarcation between traditional and progressive. In this way, as a starting point, we sought to explore the moments, contexts, and ways in which we could self-identify as master explicators, as well as what aspects of our teaching practice we wished to change. Rancière (1991) cautions against projecting equality as some future goal, yet does not offer proposals for what emancipatory education might look like. This most likely is to avoid educators embracing his work as an instructional method, but Biesta (2010), commenting on Rancière, encapsulated the spirit of our discussions:

To act on the basis of this assumption requires a constant verification of it—not in order to check whether the assumption *is* true in the abstract, but in order to *practice* the truth of the assumption, that is, to *make* it true in concrete situations. (p. 57)

School practices have historical contexts and ethical/political positions. This includes our teaching practice and relationships with students and parents whom we have worked with over the years. Working with Rancière's theory in any historical context is exceedingly complex and raises numerous considerations of stability, departure, and transition. The abstract language of emancipation and democracy, as Ellsworth (1989) noted, is a difficult place to start to think about classroom practice because it is so abstracted from historical and political investments and positions that have overtime become naturalized and normalized in classrooms. This makes it exceedingly difficult to know quite how and where to start thinking and planning for change. Moreover, Rancière's emancipatory education does not have as explicit goals for system change but focuses on individuals' subjectivities.

Curriculum planning, however, seemed like an obvious starting point, although some adherents of Rancière's work may be critical of curriculum rationalizations as disciplinary power moves (marking the beginning and ending of study). We navigated this criticism by situating our curriculum planning within a history of classroom experiences and relationships. We sought to conceive of the process of curriculum planning as less objective and disciplinary exercise but more subjective and dynamic like a shared compass—offering a direction that always remains sensitive to evolving and continuous renewal of classroom exchanges and relationships. In our discussions and actions, we hold onto curriculum as a lived and emerging phenomenon.

### Teaching With Rancière

The class was due to start a module in the provincially mandated curriculum *Understanding Earth and Space Systems* (Ontario Ministry of Education, 2007) and so this seemed a logical starting point in terms of subject-specific content. However, this was a point of discussion and much contention between the two authors. We debated what was lost and gained by starting with a consensus with state policy; and because curriculum can be read in multiple ways, our planning focused more on reframing relationships of power at the level of the classroom than particular curriculum content per se. This approach to planning might optimistically be framed as a case of reform from the ground up or, perhaps more realistically, on the ground. This overall approach acknowledges our positioning as teachers and the pragmatics of isolating particular concrete contexts to think about change.

Normally, as the teacher, I would plan the unit of study. That is, the content to be learned, the order in which it is studied, the learning activities to be completed, and the student assessment

to be conducted. However, Rancière's (1991) emancipatory teaching differs radically from the various Socratic methods typically employed in schools. Even in teaching and learning models where the curriculum emerges based on student interest and questioning, students are often discreetly guided or *led* to recognize truths, conclusions, and knowledge. Rancière (1991) argued that this is a path to learning but is in no way the path to intellectual emancipation. In applying the Socratic method, "the demonstration of [a student's] knowledge is just as much the demonstration of his powerlessness: he will never walk by himself, unless it is to illustrate the master's lesson" (Rancière, 1991, p. 29). In contrast, with Rancière's emancipatory approach, the teacher provides the occasion and verifies that the students' will and intelligence remain committed to *the search*. Understanding comes through repetition and questioning, not Socratic questioning, where the teacher already knows the answers. With this in mind, the curriculum developed as follows.

The emerging curriculum lasted 20 lessons that comprised the second term of the school year (Figure 1). The curriculum emerged through three phases.

The first phase, which we entitled *Orientation and Exploration of Concepts of Emancipation*, focused on translating Rancière's theoretical vision into practical application. Four lessons set the context for what was envisaged as renegotiating teaching and learning with students. The hope was for students and teacher-researcher to reconceive the intellectual order of the classroom, which first meant reframing in some ways the student–teacher relationship, identity, and ways of doing science. In these early classes, the teacher discussed Rancière and equality of intelligence. The class discussed aspects of how equality might be expressed and talked about the use of first language as having equivalent status in this new academic space. The plan was to use these early discussions to explore the concept of equality in the classroom. We discussed Rancière's (1991) definition of intelligence as the attention given to research (searching for what one needs to know) and the belief that we all have the ability to learn something. We discussed that the teacher's job is to keep students on track on the road to learning; that all people have the capacity to learn through their own intelligence, without a teacher's explanations; and the fact that what I know as a teacher does not need to affect what they know as students. In these lessons, we talked about how students would guide their own learning by choosing what they wanted to learn by formulating their own question(s) to answer.

The second phase, titled *Intellectual Emancipation Through Reading as Inquiry With Science Texts*, consisted of 13 lessons. These sought to encourage students to use their *own* intelligence under the assumption of equal intelligence and to answer self-generated questions through the process of reading as inquiry (see Phillips & Norris, 2009). Students were actively encouraged to choose their own text resources, which included library books and texts from electronic sources, and investigate their own questions pertaining to earth and space systems. Provision of this choice was based upon the teacher's belief that the students have the intelligence to choose a text appropriate for their needs and reading level and the ability for self-correction if an unsuitable selection were chosen. Students, for the most part, enthusiastically engaged in reading science and recorded their learning in journals. Students went back to their search if they concluded after the student–teacher conference or feedback from peers that their question was not adequately answered. During this process, reflections were added to their science journals, indicating changes in their learning. Students guided their own learning journey by posing their own questions and finding their answers.

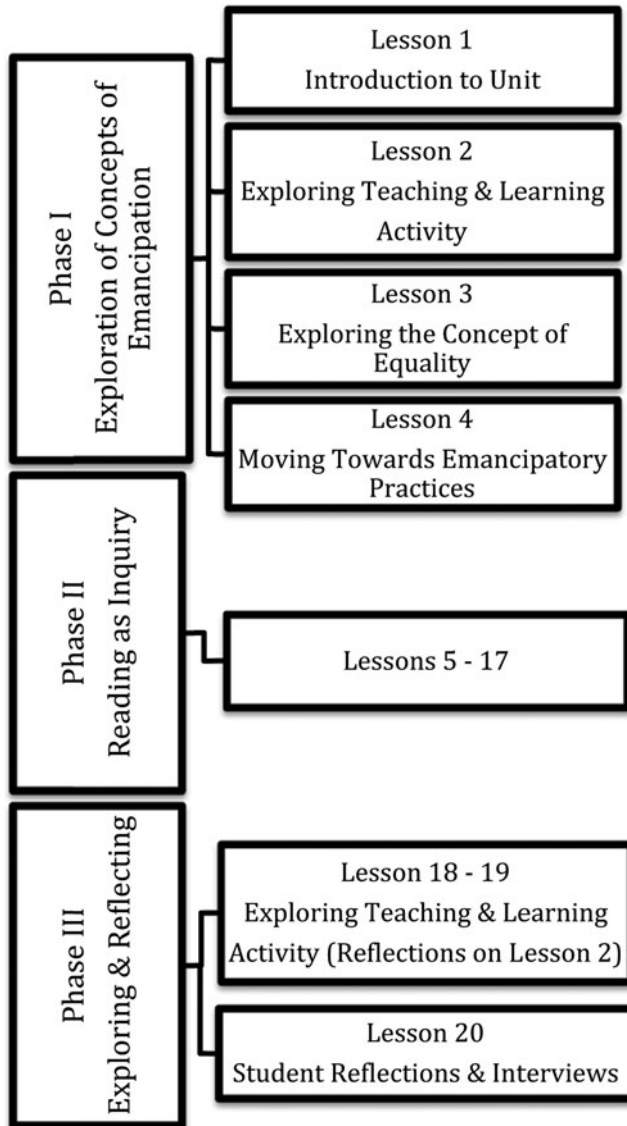


FIGURE 1 Three Phases of the Emerging Curriculum.

Rancière’s/Jacotot’s emancipatory teaching presupposes equality of intelligence where the application of, or access to, intelligence is a matter of will. Learning, from this perspective, is an act of will, “whether the will compels or relaxes the workings of the intelligence” (Rancière 1991, p. 56). Rancière argued that each of us represents a will that is served by intelligence. We see, analyze, compare, reason, correct, and reconsider on an everyday basis. A student, in

this regard, may need a teacher when his own will is not strong enough to set him on track and keep him there. This subjection is purely will over will. It becomes stultification, however, when it links intelligence to another intelligence; that is, what the teacher knows and/or allows a student to know. In practical terms, the student–teacher conferences were designed to keep a student’s will on track. These occurred several times throughout this cycle of learning. This was accomplished through learning conversations where students shared what they were learning. The goal was not to intellectually lead students during their inquiry. Rancière (1991) asked the reader to say “*what he sees, what he thinks about it, what he makes of it*” (p. 20). Once students reflected upon this taxonomy of questions and determined that they satisfactorily answered their questions, they communicated what they learned to others through written forms of expression. Throughout this process, the teacher purposefully aimed to be the cause of student learning by seeking to (a) assume that the students were capable of choosing from a variety of texts; (b) encourage students to use their own intelligence without explications; and (c) encourage close attention to text, through comparing and verifying.

The third phase consisted of three lessons entitled *Exploring and Reflecting* and concluded the unit of study with opportunities for students to reflect on their learning experiences throughout the unit and the model of practice that emerged from the study.

### Learning With Rancière

The data collection provided insight into the thoughts, perceptions, and feelings about the experiences in the participants’ own words. Data analysis revealed that expecting students to use their ability to learn by themselves and responding to them accordingly through the philosophical framework of the model resulted in students acting in response with the belief that they were capable of performing and learning in this new context. For example, their self-efficacy is reflected in the research process rubric in which most students rated themselves as proficient or exemplary in each of the categories (research question, selection of sources, note-taking, organization). Students revealed several reasons why this process of learning science was valuable and personally relevant to them and often wrote encouragingly of their growing desire to learn by themselves. For example, in her journal, Zareen expressed growth in her ability, indicating that she was aware not only but surprised by her own development. She wrote in three separate entries:

I conclude that the more sources I use the more detail I get. Right now I have a lot of detail and it was worth reading this book.

Actually it is surprising but now I am getting better and have no difficulty. I have been really successful in my learning by getting answers to my questions.

This learning process gives me more courage because every single thought of work is recorded into this so I know I’ve put a lot of effort. It works for me.

Students’ beliefs in their control was a reflection of their individual control to choose for themselves, the number of questions posed, the number of authors consulted for each question, and when their learning journey ended for each inquiry. For example, this is indicated in Sabrina’s and Nadine’s journal reflections:

When I finished reading I thought that this info was unbelievable but I have to consult from another text. I actually never knew that stars are born or they had a life cycle like humans or at least close. I conclude that I have to consult from another text. (Sabrina)



For the first and second text I did not understand a few parts because I have not learned about those parts yet. Other than that, I don't feel that I am having any other difficulties. (Nadine)

There was an expectation that students would use their first language. However, toward the end of the study, during student interviews, it became clear that students held different linguistic preferences for reading, speaking, and writing. Several of the students commented that the approach had encouraged them to think in a first language and then write in English. Sushmitha, for instance, commented in her interview:

The learning process made me think in my own language. I use my language in science a lot if the book is hard to understand.

Students expressed that this learning experience was more work and noted their challenges with vocabulary. However, students, most of whom were English-language learners, confirmed their motivation to do well and succeed in their learning. In her interview, Hamna stated,

The new way was interesting. Before you just used to teach and we had to write the answers. The teacher use to give us the information. This way no one is teaching you. It helped my learning by organizing my thoughts. In second term there was less help from teacher. We solved more by ourselves and can answer own questions. It changed my experience by giving me more confidence. I can see a difference in confidence and work from first question to third question.

Three students openly expressed unease with learning science in this context. For example, Melody appeared to be especially conflicted about a Rancière's taxonomy of questions, which was used to help students verify their search and reflect on their learning. She did not like the repetitive nature of answering the questions designed to guide students and was recorded saying, "It was annoying how I always had to repeat my reflections."

Overall, student responses from the data reflected that their will to learn science in this context appeared to be intrinsically motivated and sustained through their self-efficacy beliefs. In addition, they were motivated to persist and try hard to achieve because of their personal interest, value beliefs, and sense of control over their learning.

## WORKING POLITICALLY WITH RANCIÈRE

Authors such as Bazzul encourage us to draw on Rancière to rethink how we approach social and political orders through civic identities, in science, mathematics, and technology education. In this special issue, for instance, he writes:

In science, math, and technology education this means rethinking how we approach social and political issues and civic identities, where consensus seeking and nonactivist choices for students prevail. (Bazzul, 2015, p. 1)

This study is set in a particular elementary classroom. For some this is very much a mainstream context in which consensus prevails and dominant ideologies and social orders are reproduced, enacted, and solidified. Within this image, schools controlled from above serve as instruments of the ideological state apparatus, maintaining and disciplining the police order. Rancière is often positioned as the antithesis of such institutionalized practices (see discussions in Suoranta, 2014).

In this article, however, we have sought a different tone, a way of speaking and acting as teachers. We do not wish to see our work as entirely lost to forms of ideological representation. This article is written first and foremost from the perspective of a particular elementary classroom by teachers and researchers. Importantly, the specific classroom has a unique history, including students and teachers who have been together, played together, and helped each other over a number of years. During a protracted period of time, the teacher-author has gained students' trust and confidence, supported their learning, with much commitment, compassion, and care. In this very real human context, we want to think about what sociopolitical engagement might entail, to work through and practice ways in which we might engage with teaching and particular representations of emancipation and radical equality. We maintain that cultural conceptions, a logic-of-ideas, can have real-world effects. Ideas offer a mode of attending and a capacity to act by drawing attention to some things and not others within dynamic interpretations at moments in time. In seeking to make sense of this pedagogical adventure, we now offer three ways in which the project has challenged our subjectivities and identities as science teachers and researchers. At moments, this project has involved letting go of particular understandings of ourselves and redistributing how we account and speak for ourselves as political workers with science. We return to discuss the implications of this in the Conclusion.

## Teaching

There is something deeply odd about the prospect of taking a story of a 17th-century French experiment in teaching and applying it to a modern Canadian classroom. It is whiggish in the extreme! Yet, as science teacher-researchers we found the tale of an ignorant schoolmaster relevant and far-reaching. Why? In part, it is perhaps because it focuses on a way of being a teacher. This is not an argument for learning without a teacher or the abolition of the teacher (Biesta & Bingham, 2012) but a role for teachers to be sociopolitical agents of change—albeit always already built on a particular logic of teaching for emancipation.

As Biesta (2013) and Safstrom (2014) both noted when discussing contemporary education, it is quite unusual to talk about teaching. Discussions are more commonly framed around learning and the desirability of making learning and learners better in some way. There is a very familiar language of learning, including learning outcomes, lesson planning, schemes of work, assessment rubrics, mid-term reports, Programme for International Student Assessment (PISA), and so on. In science education research, we talk much about knowledge, conceptual development, language and epistemology, and even politics and culture. It is much harder to talk about actual science teaching and what science teachers do and why (that is, without accounting for teaching as learning).

This project has left us both thinking about how we can both speak of ourselves and act as science teachers. First and foremost this was a project of teaching, and yet throughout the journey we were continuously, and repeatedly, drawn back to learning. Indeed, throughout the 20 weeks there was a nagging question that kept reappearing: did the students learn any science? On this point, Rancière (1991) is clear:

Whoever emancipates doesn't have to worry about what the emancipated person learns. He will learn what he wants, nothing maybe. He will know he can learn because the same intelligence is at work

in all the productions of the human mind, and a man can always understand another man's words. (p. 18)

In this project we did not need to worry about science learning. Nevertheless, at times, it seemed almost impossible to dissociate ourselves from the responsibility of accounting for and measuring students' learning. It felt somehow bizarre and reckless: how can you be a science teacher without monitoring students learning of science? Indeed, in the end, this proved unbearable and after an enormous amount of discussion and debate we felt that we needed to know whether the students learned science. We observed that even though students were researching their specific questions, they read more broadly than the specifics of the question to find their answer. In analyzing and mapping student questions onto the overall big ideas or learning expectations of the unit of study, we found that the depth of content explored, learned, and shared with peers in the learning environment afforded students the opportunity to learn the science content associated with the Grade 6 curriculum.

## Will

As previously outlined, our emerging curriculum turned to processes of reading-as-inquiry. Through this method, it is the book that becomes the democratic teacher. Rancière (1991) argued that all people have the capacity to engage the same material object (e.g., a book) and therefore have equal access to the same object and the capacity to engage it in a meaningful way is equal. However, as Power (2010) noted, "The danger of shifting the master from person to object doesn't necessarily overturn the hierarchy of the student and teacher, just shifts it from the classroom to the library" (p. 8). Rancière seems to respond to these concerns by shifting the teacher's role to a relationship of will. As Biesta (2010) noted, the teacher is only an authority in the sense that he or she sets the students down a path of learning by instigating a capacity they already possess. Thus, Rancière tends to avoid arguments of power and institutional hierarchy by maintaining the demarcation between student and teacher as a recognizable educational relation of will.

The centrality offered, *will*, left us thinking about the asymmetry of affect and cognition within our associated teaching and research practices. Familiar rationalistic discourses on classrooms can make invisible the will of students and the will of teachers—and will seems to be the very condition that makes education possible. Although central to making sense of education, will is rarely mentioned, and if it is, students and teachers are represented as willful in an aberrant sense such as being stubborn and intransigent. This left us contemplating how we might speak for will and even desire as teachers and learners. The data collected in the form of student interview responses certainly brought ample attention to students' multiple and overlapping motivational pathways (see previously cited extracts from Zareen, Sabrina, and Nadine).

## Instability

This has been a project of both theory and practice. Rancière (2009) wrote of his own pedagogy that "there is not, on the one hand, 'theory' which explains things and, on the other hand, practice educated by the lessons of theory" (p. 120). He continued:

What he [Rancière] does himself is to construct a moving map of a moving landscape, a map that is ceaselessly modified by the movement itself. This is why, indeed, his “concepts” are instable: police and politics, distribution of the sensible, aesthetics, literature, etc. don’t mean the same thing from the beginning of the travel to the end; firstly because the travel is a fight too, a multi-waged fight where the emphasis can be put on different aspects; secondly because the travel—or the fight—continuously discovers new landscapes, paths or obstacles which oblige to reframe the conceptual net used to think where we are. (Rancière, 2009, p. 120)

There is something deeply paradoxical about written educational discourses. They feel so real, so natural, logical, and tidy. Theory might be read as offering a comfortable stability and clear choices. *Citizenship*, *equality*, and *emancipation*, however, are such abstract idealizations built on a language of significations.

This project continuously entailed asking what practicing ideals ought to really mean. What can we do as teacher-researchers with Rancière? How might we start with the supposition of equality? How might we teach without explication? What was apparent, however, throughout this project was a deep sense of instability and ambiguity concerning what this might mean within a very familiar and close classroom setting. This project has left us thinking about political idea(s) as reconfigured and reformed within purposeful action and the ways in which such actions can never be fully specified or accounted for. They are always in excess of any given interpretation or representation. This project, in this regard, involved letting go of idealism and our expectations of Rancière. It involved shaping a different relationship with Rancière (emancipation and equality), by embracing a *willingness* to tolerate and confront our desires of stability and coherence within a real-world classroom that was always shifting, liminal, ambiguous, and contradictory and, in so many ways, unknowable.

## CONCLUSION: MOMENTS WITH RANCIÈRE

As Bazzul (2015) noted, there are dedicated teachers and researchers who have publicly placed political engagement and action more firmly at the center of their practices (see Hodson, 2011; Roth & Barton, 2004). In the context of this special issue of the *Canadian Journal of Science, Mathematics and Technology Education*, what do we offer from our adventure with Rancière? We offer an approach that is an innovative and daring interpretation of Rancière’s philosophy to develop emancipatory pedagogy within the context of the science classroom. Our approach is distinctive in that it has less to do with knowledge and knowledge status, sociopolitical issues, curriculum reforms, or political action as manifested through engagements stemming beyond the school or classroom. It is certainly less to do with learning science. These are much more common and dominant themes within science education research and practice.

As teachers and researchers we held onto the possibilities of change within a state classroom with mandated curriculum and the pressure of curriculum standardizations and sought to practice a differing student–teacher relationship for emancipatory purposes and goals. At the onset and throughout the study, the researcher, teacher, and students always recognized that institutional authority and socially constructed power dynamics of our relationships remained (roles and identities cannot be readily sloughed off much like a snake sheds its skin). Even Rancière recognized that there is still the presence of an authority within emancipatory education.

We emerge from these experiences with a 20-lesson curriculum outline and memories of practices, supported by a variety of different data. But perhaps even more significant, we emerge with moments where we were able to step outside of ourselves and the naturalized discourses that we seamlessly draw upon to shape our identities and account for ourselves as science teachers and researchers.

This project involved us letting go (in some way) of our understandings and thereby the political positions that we are assigned and assign ourselves. We had to let go and redistribute how as teacher-researchers we speak and perform science education as learning, rationalistic, and stable. We struggled to make sense of teaching, will, and instability within a context of much familiarity. In these moments, we suggest that we became *ignorant schoolmasters*, wandering beyond the *domain of the sensible* and struggling to come to different terms with the natural rules and orders of science teaching and research. Our adventure was driven through a desire to better understand ourselves politically as both science teachers and researchers. This seems a good starting point.

## NOTE

1. We use the word *adventure* as a homage to Rancière, who opens *The Ignorant Schoolmaster* (Rancière, 1991) with the sentence: “In 1818, Joseph Jacotot, a lecture in French literature at the University of Louvain, had an intellectual adventure” (p. 1).

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