CHAPTER 2

Should we be widening the gap between teaching and research?

An interview with Gert Biesta by Philip Winter

Philip Winter: I would like to ask you some questions about the relationship between teaching and research, more specifically, about the role research might play and the role it should play in teaching. Perhaps we can begin with some more general observations and then focus on specific issues. If that is ok for you, where would you like to start?

Gert Biesta: There are perhaps two general observations I would like to start with. The first is that, in a sense, this is not a new question. Many would argue that the relationship between theory and practice is one of the perennial discussions in the field of education, and I am inclined to agree. Ernst Christian Trapp, generally seen as the very first professor of education in the world – he took up this position in 1778 at the University of Halle in Germany – was already occupied with this question, for example in a text he wrote with the rather contemporary sounding title 'On the promotion of effective knowledge' ('Von der Beförderung der wirksamen Erkenntniss'). And ever since, educators and educationalists have been discussing what the relationship between theory and practice in education could be and should be. The fact that this question is still around shows that it may be a more complicated question than what one might assume. And perhaps it simply means that the question simply 'belongs' to the field of education.

PW: And the other observation?

GB: The other point I'd like to make is that nowadays it is generally assumed that the 'gap' between theory and practice or, more specifically between research and teaching – let me say a bit more about that in a minute – is a problem and that this gap should be closed or at least should be narrowed. Which can, of

course, be done by bringing theory closer to practice, practice closer to theory, or meeting somewhere 'halfway."

PW: And where do you stand on that?

GB: I don't want to jump to conclusions too quickly and am actually interested in exploring the opposite case, that is the question whether there may be problems in trying to close the gap – which also means exploring whether there are actually good reasons for keeping the gap open and perhaps increasing the distance between research and teaching.

PW: Before we look at that in more detail, can I just ask whether for you the theory–practice issue and the teaching–research issue are roughly similar? Or is there a difference between the two?

GB: Thanks for asking, as this is indeed an important point for me. The concerns I have are actually about the relationship between research and teaching, because I believe that recent tendency to move research closer to teaching and to the practice of education more generally are problematic. This particular issue is not the same as questions about the role of theory in educational practice, where I would actually be inclined [to say] that good practice cannot do without theory and actually already contains a lot of implicit theory. So, if it is ok, I would like to focus our conversation on recent developments around the role of research in teaching.

PW: Thanks for the clarification. So, if we focus on the relationship between research and teaching, what then are the developments that you would like to highlight?

GB: I'm particularly interested in – but also concerned about – the recent 'push' to try to make teaching into a research-based profession. In England an important 'starting shot' took place in 1996 when David Hargreaves, at the time Professor of Education at Cambridge, delivered a lecture to the Teacher Training Agency with the title Teaching as a Research-Based Profession: Possibilities and Prospects. It's instructive to look at the language he uses, so let me read a couple of lines. 'Teaching is not at present a research-based profession. I have no doubt that if it were, teaching would be more effective and more satisfying.

The goal of enhancing effectiveness and satisfaction can be achieved only by a combination of several means, of which an adequate research base is just one. (…) However, I shall argue in this lecture that providing that research base will require a radical change both in the kind of research that is done and the way in which it is organized. To make my case I look inside the profession and the research community to examine what we now do; but I shall also look at another profession to detect what lessons can be learned about creating a genuinely research-based profession.' As you can see, this is quite 'strong' language, because it calls for radical change, thus suggesting that what educational research had achieved up to that point was largely wrong or misguided. And it may not be too difficult to guess which profession he has in mind that should serve as the example for educational research.

PW: Let me guess: medicine?

GB: Exactly! And he's of course not the first to think that medicine provides the template for the future of educational research and its relationship to practice. Let me come back to that in a minute.

PW: What has happened since?

GB: I don't think that Hargreaves' lecture was the cause of what has happened since, but it did definitely express a direction that only has become stronger over the years, not just in England but in large parts of the English-speaking world and countries that take inspiration from developments there. The school effectiveness movement is a clear example of the idea that with a different kind of research we can increase the effectiveness of teaching – an idea which we see nowadays in the suggestion that we need research about 'what works' and that large-scale randomized controlled trials are the one and only way to find this out. The suggestion that we need a different kind of research in education has also led to large investments in educational research – in the UK, for example, there was a 10-year Teaching and Learning Research Programme that sought to change the nature and enhance the impact of educational research. It ran from about 2000 to about 2010 and did indeed generate a lot of new research, but not the kind of research that Hargreaves or school-effectiveness researchers were arguing for. From the suggestion to make teaching a research-based

profession, things have increasingly moved to arguments for making teaching an evidence-based profession. Some have argued that teaching should not be evidence-based – which sounds rather instrumental – but should be evidence-informed, though for me the real question is what we actually mean by 'evidence.'

PW: Let's come back to that point as well.

GB: And much of this has been – and still is – intertwined with policy and politics and, not to forget, money. The 'New Labour' government of Tony Blair, for example, established a 'Standards and Effectiveness Unit' to promote this agenda. In the US the 'No Child Left Behind' act led to a situation where federal funding for educational research would only go to randomized effectiveness studies. And more recently a lot of money has been channeled towards this kind of research through the work of the Educational Endowment Foundation in the UK. What also keeps emerging in these discussions are arguments for the teacher as researcher. These partly stem from more democratic agendas coming out of the tradition of action research. But they also stem from technocratic agendas that often see medical research as the ideal situation – I tend to refer to this as 'medicine-envy.'

PW: Has this all been going in the same direction?

GB: Not entirely. I recently re-discovered a piece from 1993 by Martyn Hammersley, a professor at the Open University whose work I really admire, called 'On the Teacher as Researcher.' In the paper he examines the suggestion that research should be an integral part of the work of teachers in schools rather than an activity carried out on schools by outsiders, as he puts it. The paper is a very careful discussion of the arguments in favor and against this idea. And interestingly, Hammersley comes to the conclusion – several years before Hargreaves' lecture – that while the arguments in favor have some force, they do not add up to a convincing case, as he puts it, for the superiority of teaching-as-research. It is not only interesting that this argument was already made in the early 1990s. It is also helpful, at least for where I would like to take our conversation, that Hammersley focuses on the idea of teaching-as-research, as it is there that my main concerns also lie.

PW: Let's have a closer look at some of the more detailed issues then.

GB: OK. Although it may sound a bit rhetorical, I do think that it is important to ask how much research teaching actually needs. After all, people have been teaching for thousands of years – think of Plato's Academy or Aristotle's Lyceum if you want some famous historical examples – without much or perhaps even any research going into it. So the idea that teaching is in need of research is actually a rather recent or modern idea – we might even call it a modern obsession – which raises the question where this need for research comes from, is it perhaps part of a desire for control? Has it something to do with our inability to endure uncertainty and risk, even if the risk is beautiful, as I would argue in the case of education? Have we lost the ability to think for ourselves? Has the research 'industry' perhaps been quite effective in giving us the impression that we cannot live our lives without it? Important questions, I think, that we should continue to ask so that we do not uncritically simply assume that for every problem research is the answer.

PW: It is interesting that you use the phrase 'research industry.'

GB: [It is] perhaps part of the problem, at least with educational research, that so many people are involved in it – which is partly due to the fact that in many countries teacher education has been incorporated into the university and suddenly teacher educators are faced with the challenge to conduct research and are therefore 'in need,' so one might say, of 'problems.' We shouldn't underestimate this part of the issue, I think, which is that the 'supply-side' of educational research has grown so big that there is a pressure to create its own 'demand.'

PW: You mentioned medicine-envy, and seem to believe that educational research should not move too quickly in the direction of medical research. Can you say a bit more?

GB: Sure. Again, to begin with a rather blunt but nonetheless important observation: being a student is not a disease and teaching is not a cure, and already for this reason we should be careful with assuming that the practice of medicine resembles the practice of education. There are also people who argue that the kind of research we need in education should follow the model of agriculture,

where we change the conditions under which plants grow – like the amount of light, or water or nutrients – in order to find out which combination of factors yields the highest return. Again, I would say that this is entirely inappropriate for education, because students are not plants that should grow and produce a crop, but human beings involved in educative processes. (This, by the way, is also the reason why I don't like Dewey's language about 'growth' – I think it's a category that doesn't really fit the dynamics and purposes of education. Perhaps I can return to that in a minute.)

PW: Is there anything more to say about the comparison with medicine?

GB: Yes, there is another really important point, because when people refer to medical research as the template for what educational research should become, they often assume that the success of modern medicine lies in the fact that it has this strong scientific knowledge-base which generates the evidence about what works, and that what medical practitioners do is simply doing what the research tells them to do. Here I keep coming back to two important books written by Bruno Latour – *The Pasteurization of France* (1993) and *Science in Action* (1988) – in which he shows that the fact that medical knowledge seems to be able to work everywhere, is not the result of the fact that such knowledge is universally true. It rather has to do with the ways in which modern medicine – and the examples Latour gives refer to other aspects of modern 'technoscience' as well – has been able to export the conditions under which certain knowledge 'works' to the very concerns of society. In the Pasteurization of France Latour argues, for example, that the reason why Pasteur's method initially only worked in his own laboratory and ten years later worked on all the farms in France, was not because this method was robust and based on strong scientific-evidence so that it could safely 'travel' outside of the laboratory, but because all the farms in France had transformed into the conditions of the laboratory so that Pasteur's method could work there as well. In this way France became 'Pasteurized,' so to speak; it turned into one big laboratory so that Pasteur's method and the knowledge linked to it, could travel with ease.

PW: How is this relevant for education and educational research?

GB: I think that it helps us to see that knowledge produced by research cannot simply travel from the research setting to the classroom but requires a change of classroom practice itself so that the research can begin to work, so to speak. This is not to contest that research can show that *in a particular setting, with particular teachers and students,* what teachers did, had a particular 'impact' on students. But for that knowledge to be of any use elsewhere, there is a pressure to make sure that the teachers and students in those other settings resemble the teachers and students from the research setting as closely as possible. So before you know it, research is beginning to change the practice of education, rather than that it provides interesting information. That is one of my prime concerns in relation to the current push towards, to use Hammersley's phrase, teaching-as-research.

PW: So are you saying then, that if we bring research too close to the practice of education, it begins to change – and perhaps you would also say: distort – that practice?

GB: That's exactly my worry. One way to express the problem is to say that the 'logic' of research, that is what research 'is' and how it is 'done,' is fundamentally different from the 'logic' of teaching and education more generally. To begin with, there is a very different orientation of research and teaching; they have very different purposes. The point of research is to know; the point of teacher is to educate. But research and teaching are also very different 'actions,' if that is the right word; they 'operate' in a very different way. Yet what I see happening is people arguing that research and teaching more or less operate in the same way. They argue that research is a matter of intervening in a situation in order to find out what the effects of such an intervention are. And then they say that teaching is exactly the same: it's an intervention that should produce learning – or learning outcomes, to use that awful phrase – and the whole point is to make sure that the intervention of teaching is targeted in such a way that it produces the desired learning outcomes.

PW: This has indeed become a rather common language in education. But you think that it's problematic?

GB: Absolutely. I think it misconstrues what education is about. It turns students into objects that teaching intervenes upon (rather than acknowledging that

students are human beings who can and should be allowed and even encouraged to think for themselves and make up their own mind) and it suggests that teaching is some kind of causal process and we need research to establish effective connections between inputs and outcomes. This is perhaps the logic of pig-farming – although pig farmers who care about the wellbeing of their pigs would already object to such an approach – but it is not what should happen in education or how we should conceive of education. Yet this language of teaching as an intervention or of learning as an outcome has indeed become very prominent – and even teachers and students themselves are using it, often without really being aware of how they are undermining the very process they are part of. So this is part of my concern when research moves too closely to teaching: that it actually hijacks teaching and turns it into something else.

PW: You showed me a brief piece you had written for a journal in which you claim that education doesn't work and shouldn't be made to work. Can you say a bit more about that, because it seems relevant for where we are in our conversation. I am also keen to understand why you would argue that teaching doesn't work, because many teachers would say that they have a lot of knowledge, and experience, about what works and what doesn't work – and in their everyday practice they are constantly trying to figure out what works for their students.

GB: I tend to agree that in the everyday practice of teaching the language of 'what works' makes sense. When a teacher tells about something she did with her students, a colleague may well ask 'and did it work?' Problems arise, however, when we move this language of 'working' to a general level and connecting to the idea that research should tell us what works *in a general sense*, so to speak. The first thing I would emphasize is that 'working' is actually a category mistake, as philosophers call it; it's a category that doesn't fit the reality of education (just as, for example, it would be a category mistake to assume that a machine can grow; the category of 'growth' simply doesn't make sense with machines).

PW: Nonetheless many teachers, but perhaps also researchers, would argue that education works pretty well. How would you explain that then?

GB: The interesting question, I think, is not whether education 'works' – let's say, whether education can operate in (entirely) predictable ways in which

intervention 'A' will *always* result in outcome 'B' – but what [does] it take to make education work in this way. I've got a little theory that I find very helpful in addressing the latter question; it takes inspiration from systems theory and complexity theory.

PW: Can you say more?

GB: It starts with the question [of] where we can encounter 'strong' causality, that is, the situation where intervention A will always produce outcome B. In the language of systems theory, we can say that this only happens under very specific conditions, namely in systems that are closed – where there is no interference from the 'outside' – and that function in deterministic and linear ways. Think, for example, of the way in which one billiard ball impacts upon another billiard ball and where we can perfectly predict, if we have all the information about the trajectory of the first ball, what will happen with the second ball. This already indicates why we shouldn't expect such strong causality in education. This is first of all because education is an open rather than a closed system – children are allowed to go home at the end of the school day – so there are a lot of variables that can interfere. Education is also what I have called a semiotic system. It doesn't operate mechanically through push and pull, but through communication and interpretation. It is, therefore, not deterministic because everything depends on how students interpret what teachers say and do, to put it briefly. And thirdly, education is not a linear system but a recursive system; which is a complex way of saying that the 'elements' in the system, teachers and students, can think and act, and can decide, based on their thinking, to act differently, which impacts on the system as a whole.

PW: So there's little chance then of any connection between 'inputs' and 'outcomes'?

GB: In principle not, but what is interesting – and that's why I think that this way of looking at things is so relevant and helpful – is that much of what we do in education, much of the work of the teachers, is to reduce the openness and unpredictability of the system so that it begins to work. With regard to openness, for example, we have school buildings and classrooms, but also curricula, and all are intended to get some focus in the process, to help students to pay attention, to make communication possible in the first place, and to give purpose

and direction to the communication that happens in schools. So, we actively reduce interference from the outside by putting certain physical and curricular boundaries around what is happening, so that something can happen at all. Just imagine if you would have to teach in the middle of Piccadilly Circus, or similar places. It would be clearly impossible. The same with semiosis: the process of communication and meaning making. Again, what we do in education is give direction to the meanings we put in front of our students – that's another way to think about curriculum – and to the meaning that students make of what we put in front of them – which is the important work of formative and summative assessment. So here as well we reduce the degrees of freedom for interpretation, so that something educational can happen. In some areas we reduce degrees of freedom of interpretation a lot – there isn't that much creativity possible for instance, in mathematics or careful historical analysis, but quite a lot, in the arts, although the different art disciplines all have their own standards and traditions as well. And even with regard to recursivity – how students and teachers think about what they are doing – we reduce degrees of freedom. In teacher education we help students, for example, to think as a teacher, which is different from just any way of thinking. So by reducing degrees of freedom with regard to openness, semiosis and recursivity we are slowly pushing the whole 'operation' towards a situation that becomes more structured and predictable. And in a sense, there's nothing wrong with that, as long as we see that this is something that requires quite a lot of effort rather than that it is the natural way in which education operates.

PW: That is a helpful perspective indeed.

GB: The point I find really helpful – which also shows that this approach tries to engage with the specific nature of the practice of education; for medicine we need a rather different account – is that if we reduce openness, semiosis and recursivity towards the very extreme, we might be able to create a system that becomes totally predictable, but such a situation no longer deserves the name 'education' but has become 'indoctrination.' So, the real challenge is to get some structure into the educational 'operation' but make sure that we don't go too far in doing so and move beyond the point where education 'flips' into indoctrination.

PW: Where do we encounter that point?

GB: I'd probably say where the student begins to become an object – a 'thing' we intervene on from the outside in order to get the desired behavioral and measurable 'response' – and ceases to exist as subject; as thinking, feeling, and willing human being, so to speak. Now there are education systems that are not the least interested in the subject-ness of students – and perhaps such systems are not as far away as we may be inclined to think. But I continue to emphasize that the subject-ness of our students is what matters first and foremost. We don't want our students to become obedient clones, because we know what can happen to societies where everyone is just obeying a leader and 'forgets' to keep thinking for themselves. Here we encounter the remarkable fact of human freedom – that as human beings we have agency, we have the possibility in every situation to say yes or no, to stay or walk away, to go with the flow or offer resistance, and that what should be done is ultimately up to each of us to figure out, although we can help and encourage each other to try to do what is right (but even figuring out what is right is a hugely complex matter).

PW: So for you education is ultimately – and perhaps also fundamentally – about freedom?

GB: I'm happy to say 'yes' here, as long as we bear in mind that the modern idea of freedom – just doing what you want to do – is a travesty of what human freedom is and ought to be. The real question for education, therefore, is not to make sure that students just enact their freedom, just do what they want to do, but rather that they come into a relationship with their freedom. That they get a sense that their freedom is their freedom; that it is a power that can destroy [or] do good; that their freedom always relates to the freedom of others, and that it can either reduce or enhance the freedom of others, and so on. In my own work I use the phrase 'arousing the desire in children and young people for wanting to exist in the world in a grown-up way' to capture what is 'at stake' in education. The German educationalist Dietrich Benner uses the idea of education as 'Aufforderung zur Selbsttätigkeit' – literally: summoning to self-action. This is not a summoning to be yourself (and not care about everyone else) but the summoning to be a self, so to speak.

PW: Arousing and summoning – that's a very different language than that of teaching as intervention.

GB: Indeed. And the difference is that, as mentioned, in the language of intervention the student quickly becomes an object, whereas education should always aim to approach the student as subject, because as educators we ultimately want our students to leave. We want them to live their own lives, and to live their lives well.

PW: But students go to school to learn as well? Where does that fit in the picture?

GB: Of course they do, and it's the job of the school to do that well. That's why, in my own work, I keep coming back to the fact that schools have to be concerned about three 'domains' – that of qualification, helping students to acquire knowledge and skills become qualified in thinking and doing, that of socialization, that is, providing students with an orientation in the world, including an orientation in the topics that make up the curriculum, and thirdly that of subjectification, the encouragement to take responsibility for their own freedom, for their own existence as subject, which ultimately all of us have to figure out for ourselves. So qualification and socialization are definitely important, but even there the language of intervention and outcome makes no sense, since students as thinking, feeling and willing beings are the ones that need to gain knowledge, become skillful, find orientation, and so on. So what they achieve there is not the outcome of some kind of intervention but is literally their achievement as a result of their engagement in complex educational communication. That's the problem with this strange word 'teachingandlearning' – I seriously think that for many people this has just become one word and even the idea that teaching should bring about learning. Gary Fenstermacher, an American educational scholar, has suggested that what teaching should aim at is the 'studenting' of students, the work they do, the attention they pay, the efforts they make. What students pick up from that is not something teachers have control over. I find that a helpful and refreshing way to look at the dynamics of teaching; one in which students can appear as subjects, not objects.

PW: So if we bring this back to where we started, what does this imply for teachers and the way they engage with their students? Should teachers develop a researchers'

'eye,' so to speak? Should they look at their students in terms of the potential outcomes of their teacherly interventions?

GB: That is what we hear a lot nowadays, for example in this strange suggestion that learning should be visible, that everything that happens in the classroom should be transparent, that students should be told where they should end up after the lesson, and that it is there that they should end up and nowhere else. Perhaps for some minor aspects of instruction this can be a helpful idea, but for the full spectrum of meaningful education this is just silly. Not just because it objectifies the student – and actually pushes them in the direction of self-objectification, that is, managing their own performance towards the stated goals – but also because it takes all adventure, all newness out of education, and just depicts it as a process of pure repetition. As a teacher I often do not know where we will end up at the end of the lesson, and a main reason for that is that I may know what I want to bring to the teaching situation, but I cannot predict what my students will bring to that situation. To deny that to happen is, in my view, rather uneducational.

PW: Does that mean that teachers need to have a different 'eye' – and educational 'eye' perhaps?

GB: If the research eye is always looking for evidence – for what literally can be seen – I think teachers need to be able to see possibilities that are not yet present, are not yet actual. In this regard teachers need to be able to see *more* than what is visible. They need to see potential, and orient their actions towards this potential, particularly when students themselves do not yet see this. Trust is an excellent example of this, because we only need to give trust when we cannot predict what a student will do. If we already know what a student will do, there's no need for trust. But when we say to a student that we trust them – or that we trust them with a task or a responsibility – we bring their subject-ness into play, so to speak; we open up a future which the student can step into, or not. For that we should always try to go beyond all the 'evidence' we have in front of us. That also means that, perhaps with their other eye, teachers should be able to see less than what is visible. This is the real problem with all the diagnostic thinking in education; this idea that we first need to know everything about our students, about their abilities and so on. Before we know it, we 'fix' the student

and block a different possible future for them. So the eyes of the teacher, if they are interested in education rather than the safe production of learning outcomes, are very special eyes. There lies an important challenge for teacher education, I would say. And you will understand that such educational eyes look in very different ways from the eye of the researcher.

PW: Another reason, then, for keeping the gap open?

GB: I would say so!

PW: To sum up?

GB: My main point is that teaching and research are very different practices, with a different purpose and a different logic. When we think that they are 'roughly similar' we not just run the risk of no longer understanding what these practices are, but also run the risk that the logic of research begins to replace the logic of teaching. And this is what I see happening, particularly as a result of this push to close the gap between research and teaching. But the outcome of this is that teaching becomes something else and that ultimately also teachers and students become someone else – and perhaps it's even more appropriate to say that they become something else, they become objectified. This is why we should be wary of simply bridging the gap between research and teaching and should also be wary about the idea of teaching as research and the teacher, qua teacher, as researcher.

PW: I assume that the 'qua teacher' is important for you?

GB: Indeed. My point is that teaching should not be replaced by research. I am not saying that teachers should not conduct research or should not be allowed to conduct research. That would really be misinterpretations of what I am trying to say. On the contrary, I think that teachers should be strongly encouraged to have an ongoing intellectual engagement with their practice – which for me involves history, to begin with, and a range of other ways to make sense of and deepen understanding of the complexities of the practice of education. The only thing I am warning against is when the research teachers do would *replace* their teaching. So teachers who talk about their teaching as an intervention and of their assessment as research into the effects of their interventions have lost

their profession, I think, just as teachers who split their class into an intervention group and a control group and conduct a mini randomized controlled trial – which, sadly, I have encountered and, more worryingly, is proposed by some as the future of the teaching profession.

PW: Can you say bit more about this phrase 'intellectual engagement'?

GB: If it sounds too 'intellectual,' then we should perhaps be looking for a different phrase, but what I am after are modes of engagement that help teachers to become better teachers. Such modes of engagement require observation – careful looking at the dynamics of one's own practice-whilst-practicing – and theory, that is, bringing in resources to try to make sense, in a variety of ways, of what might be happening. I am looking for modes of engagement, in other words, that bring teachers closer to their teaching – whereas much research actually creates a distance between teachers-as-researchers and their teaching. The comparison with musicianship is useful here, because in order to become a better pianist you need to engage more deeply with your own playing – not conduct a research project on it. The real challenge, therefore, is to find ways in which teaching can become more thoughtful, for which we need intellectual resources, particularly educational modes of thinking, not empirical research, because these resources needs to be connected to the very 'point' – or 'points' if one wishes – of education. And it perhaps all starts with the simple observation that the language of interventions and outcomes is simply the wrong language for capturing what is at stake in education. It's as simple as that – to begin with!

PW: Thanks very much.

In this interview, Gert Biesta referred to the following publications:

Hammersley, M. (1993). On the teacher as researcher. *Educational Action Research 1*(3), 425-445.

Hargreaves, D. (1996). *Teaching as a research-based profession: Possibilities and prospects.* London: Teacher Training Agency.

Latour, B. (1987). *Science in action: How to follow scientists and engineers through society.* Milton Keynes: Open University Press.

Latour, B. (1988). *The pasteurization of France.* Cambridge, MA: Harvard University Press.

In 2020 the following book has been published, in which many of the ideas presented in this interview are discussed in more detail:

Biesta, G. (2020). *Educational research: An unorthodox introduction.* London/New York: Bloomsbury.