Practice-Based Research Policy in the Light of Indigenous Methodologies: The EU and Swedish Education

Eva Lindgren and Kristina Sehlin MacNeil

Umeå University

Authors' Note

Eva Lindgren bhttps://orcid.org/0000-0002-4641-1206

Kristina Sehlin MacNeil Inhttps://orcid.org/0000-0002-4853-9641

Correspondence concerning this article should be addressed to Eva Lindgren at eva.lindgren@umu.se and Kristina Sehlin MacNeil at kristina.sehlin-macneil@umu.se

Abstract

Participatory research methods in education, such as action research, have been around for some time. Recently, not only researchers but also research policy makers have highlighted the importance of participation between society and research. Citizen science, science with and for society, and practice-based educational research are examples of approaches that aim to bring society and research more closely together. In this paper, we explore underlying premises behind practice-based research policies in the EU and in Swedish educational research policy. In order to understand how participation can be understood, we have analysed them closely through a lens of Indigenous methodologies. Results reveal an underlying understanding of participation as nonreciprocal where expertise is a key concept, researchers hold this expertise, and where the main responsibilities for research lie with the researchers. However, the results also indicate a sense of respect for practice and a willingness to form relationships between research and practice.

Keywords: practice-based research, school-based research, participatory research, Indigenous methodologies, Citizen science, research policy



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In the international arena, the role of research in society is currently being discussed, explored, and developed. The European Union (EU) promotes *citizen science*, science with and for society (SWAFS) (Science Europe, 2018), and in the education research field in Sweden, participatory research methods are strongly promoted and even a prerequisite for research funding in a recently established national research council. Even so, there is little consensus of what participatory research entails and in what ways it differs from other research approaches.

The purpose of this paper is to view European and Swedish policy on practice-based research from a new angle. In particular, we target policy documents regulating research and research funding on national and EU levels and pose the following overall questions: Who designs a research project for whom?; How is knowledge valued between the participants in research processes (including researchers)?; How does policy and practice-based research connect?; What and how is practice-based research meant to change?; and What epistemological challenges can be identified in practice-based research? To answer these questions, we borrow aspects from Indigenous methodologies, which we understand to be intrinsically collaborative and relational, and create an analytical framework based on three key concepts: respect, reciprocity and relationships. Our aim is to contribute some novel ideas to the already progressive and rapidly developing field that is practice-based research. In this paper, we do not explicitly discuss decolonizing perspectives, although we recognize that there is a strong focus on and need for decolonizing perspectives in Indigenous research (See Tuhiwai Smith, 1999, 2012, 2021 for seminal works on this). However, the collaborative and relational aspects that we discuss also promote decolonization in research processes. We include a discussion on the hierarchical relationships between research and practice in practicebased educational research policy and borrow concepts from Indigenous methodologies to formulate a number of issues to consider prior to starting a research project.

Indigenous methodologies, when referred to as specific Indigenous peoples' theories and methods for knowledge production, are founded in specific Indigenous peoples' ontologies and epistemologies and thus linked to the respective peoples and their respective lands (Sinclair, 2017, p. 65). Indigenous peoples are varied and multifaceted; however, there are some strong parallels between them, one of which is the importance of positionality, derived from the importance of the connection between peoples and their lands (Moffat, 2016; Sinclair, 2017, p. 67). To honour these aspects, we here position ourselves as Swedish researchers, active in the fields of educational research and Indigenous studies, with considerable experience of working together with Indigenous scholars and communities and with a strong interest in and respect for Indigenous research paradigms.

Practice-Based and Participatory Research

Citizen science (SWAFS), participatory research, and practice-based research are examples of approaches that all aim to bring society and research more closely together. Citizen science as a term was coined in the 1990s in the fields of social sciences, stressing the importance of research responsibilities to society, and in biology, where citizens' observations as contributions to science were in focus (Science Europe, 2018). To date there is no single definition of citizen science, but it typically "involves scientific work undertaken by members of the general public, often in collaboration with professional scientists and scientific institutions." (SiS.net, 2017, p. 1). More specifically this may refer to a research method that allows citizens to participate in data collection, a movement that aims to democratize research by moving it closer to society, or a social capacity contributing to knowledge production and decision making (Eitzel et al., 2017).

In their research program Horizon 2020, the EU advocates science with and for society (SWAFS) as the central theme underpinning all their calls. Indeed, the main aim of the research program is "to build effective cooperation between science and society, to recruit new talent for science and to pair scientific excellence with social awareness and responsibility." (European Union, 2013, p. 743). A central transversal in SWAFS is *responsible research and innovation* (RRI). In essence RRI implies "that societal actors work together during the whole research and innovation process in order to better align both the process and its outcomes, with the values, needs and expectations of European society" (European Commission, 2012 p. 1). These goals are to be met through "inclusive participatory approaches" (European Commission, 2012, p. 1).

Participatory approaches to research have a strong agenda of change and are grounded in a transformative paradigm. A well-established method for participatory research is action research (Mertler, 2011), sometimes specified as participatory action research (Dedding et al., 2021) or collaborative action research (Cain, 2011). Action research is a common methodology used in schools with the aim to contribute to teacher development and growth as well as to students' achievements (Mertler, 2011), which fundamentally rests on the idea that issues perceived by practice should be solved in a real context. In the field of linguistic landscape studies, Matras and Robertson (2017) collaborated with society in what they describe as "process pragmatism," which they describe as "a distinct approach to co-production that views research itself as part of a process of social change" (p. 7). They further describe a research process that is characterized by strong relationships and is collaborative even before issues for investigation are defined. Co-production of knowledge and social change are two fundamental values in participatory research (Dedding et al., 2021). In an attempt to form guidelines for community-based participatory research (CBPR), Muhammad et al. (2015) added some additional values, to the aforementioned, such as reflexivity, social justice, and sustainability. However, they also problematized the resistance participatory research teams may meet in the academy, the need for reflection on researcher identity, and researcher accountability (Muhammad et al., 2015). Methodologies in participatory research are not necessarily different from conventional methodologies, but the "key difference between participatory and conventional methodologies lies in the location of power in the research process" (Cornwall & Jewkes, 1995, p. 1667).

In the educational field, Carlgren (2011) described practice-based research as research based in practice, as opposed to research that is based in theory. She argued that if the research is practice-based, then the problem under investigation comes directly from practice, and then teachers are actively involved in parts, or the whole, of the research process. One example of such an approach using (quasi)-experimental methodologies is as a study of writing development in two classes with 11-year-old pupils (Hermansson et al., 2019). In their study, a multidisciplinary research team collaborated with two class teachers from the very onset of the research process, collaboratively deciding the focus of the study and how it was to be implemented. After agreement between researchers and teachers, the researchers took the main responsibility for analysis and dissemination of the results. Bergmark (2019) described the importance of creating such a "shared understanding of roles and responsibilities between researchers and teachers" (p. 11) and refers to Beveridge et al. (2018) who proposed that researchers may even create a joint Memorandum of Understanding in order to discuss and clarify roles and responsibilities.

Prepositions are central in definitions of practice-based research and a way of describing how the collaboration between researchers and practitioners can be viewed. All the approaches above, for example, fall within the broad definition of practice-based research defined by Oancea and Furlong (2007) as "an area situated between academia-led theoretical

inquiry and research-informed practice, and consisting of a multitude of models of research explicitly conducted in, with, and/or for practice." (p. 124). Similarly, Aho et al. (2016) discussed the Swedish term "skolnära forskning" [research close to school] and how this line of research can be "about, by, for, in, close to, implicitly meaning teachers, school, and practice" (our translation, p. 124). Fundamentally the variety of prepositions used to describe practice-based research illustrates a continuum of proximity to practice where one end illustrates no participation from practice and the other end full participation from practice. For example, if research takes place *in* school it does not necessarily have to be *with* teachers. If it is for practice it does not have to be performed *in* schools or *with* teachers, and so forth. According to the definitions, not all prepositions have to be present in a study in order for it to be defined as practice-based, meaning that a study could take place in practice, but without involving practitioners and without an aim to feed back into practice. However, even if inclusive prepositions, such as "with" are included in the definition, the ideologies and values of researchers and practitioners underpinning the project may direct the characteristics of the collaboration to different ends of the continuum.

Indigenous Methodologies

Indigenous methodologies share certain traits with practice-based and participatory approaches to research. However, what are often simply called "Indigenous methodologies" are both a) Indigenous peoples' theories and methods for performing research, often developed and used over millennia, and b) a call for decolonization of research processes and thus shifting power or rebalancing existing power structures.

In the name of research Indigenous peoples have been poked and prodded, othered and observed. Indigenous peoples have been and are still considered objects to be researched more often than subjects performing research on their own issues (Kovach, 2010; Tuhiwai Smith, 2021). As a response to this treatment, Indigenous and decolonizing methodologies have emerged in the last 30 years and taken root within the mainstream academe, evidenced in part by the ever-growing number of prominent Indigenous scholars contributing to the field (Denzin & Lincoln, 2008). Indigenous research methodologies, however, are not new—rather they are as old as the cultures that invented and practice/d them in their quests for knowledge production. Neither are Indigenous methodologies one specific theory, method, nor way of performing research; on the contrary, they are as varied as the many peoples that use them (Kwaymullina, 2016, p. 439). First Australian scholar, Karen Sinclair (2017, p. 64) described Indigenous methodologies as "offering 'possibilities' and 'opportunities' for ways of thinking and knowing which are grounded in my own Indigenous epistemology." Wilson (2001) posed that rather than talking about "an Indigenous perspective on research" (p. 176), which implies that mainstream Western research paradigms (Wilson names four in his article: positivist, postpositivist, critical and constructivist) are the norm and Indigenous research only different perspectives on these, we should talk about an Indigenous research paradigm, positioned alongside the Eurocentric and dominant research paradigms, most often used in the academe. This Indigenous paradigm is different to the dominant research paradigms as it rejects the idea that knowledge is individual. Wilson (2001) explained the following:

Dominant paradigms build on the fundamental belief that knowledge is an individual entity: the researcher is an individual in search of knowledge, knowledge is something that is gained, and therefore knowledge may be owned by an individual. An Indigenous paradigm comes from the fundamental belief that knowledge is relational. Knowledge is shared with all of creation. (p. 176)

Wilson (2001) also stated that knowledge produced through research cannot be owned, rather it is "a relationship with all of creation. It is with the cosmos, it is with the animals, with the plants, with the earth that we share this knowledge" (p. 177). Underpinning this epistemological thesis is worldview, something that is echoed by other Indigenous writers such as Russell Means and Bayard Johnson (2012) who wrote about connectedness in an American Indian context and how an individual is never alone but always part of the entire universe, thus placing responsibility on people to be accountable to earth and all aspects of it (p. 2). Similarly, Sámi scholar Rauna Kuokkanen (2011) asserted that remaining connected and maintaining balance with earth on all levels was (and is still) fundamental to many Sámi people—as this could ensure survival in sometimes treacherous climates and landscapes (p. 34). The above mentioned perspectives also underpin the core of Indigenous methodologies.

Despite the great variety of Indigenous methodologies, most scholars agree that there are some fundamental shared principles that guide them (Evans et al., 2014; Kovach, 2010; Louis, 2007; Martin, 2003; Moreton-Robinson & Walter, 2009; Porsanger, 2004; Wilson, 2001). Several Indigenous scholars offer their perspectives on these shared positionings, one example being Renee Pualani Louis (2007) who suggested that the literature on Indigenous methodologies presents "four unwavering principles: relational accountability; respectful representation; reciprocal appropriation; and rights and regulation" (p. 133). Relational accountability, relating back to Wilson's above-mentioned discussion, implies that the researcher is accountable to all parties—and everything around them—at all stages of the research process. We interpret this to mean that in practice, successful research processes should rest on foundations of dialogue, transparency, equality, and mutual respect between researchers and research participants and their environments. Which brings us to respectful (re)presentation, meaning that a researcher needs to show genuine humility and ability to listen to and truly hear research participants, as well as understand that processes might take time and that outcomes might not always be the ones desired by the researcher, or the research participants for that matter. The third principle is reciprocal appropriation, the recognition that research is appropriation and thus, should benefit both researcher and research participants. Finally, we have rights and regulation, which stipulate that research with Indigenous peoples, guided by Indigenous protocols, should be conducted as collaborations and that no research results should be published without the consent of the research participants. It also refers to ownership of intellectual property and the control over publication and reporting of shared knowledge.

As a complement to these four principles can be added three R's: respect, reciprocity and relationships (Reid & Taylor, 2011). The R's should guide the way that researchers and research participants conduct themselves in a research process. Relationships are valued and protected by respecting each other and the intellectual property shared—which should also be reciprocal; research should not be extractive but mutually beneficial for both researcher and research participants.

When research is conducted *on* rather than *with* Indigenous peoples, without recognition of Indigenous situations and protocols or ethics and methodologies, the results are rarely beneficial to the Indigenous communities they impact. Margaret Kovach (2010) stated that Canada faces a crisis in Indigenous education and child welfare policy because the research that help shape the policies, thus affecting the practices that impact First Nations communities, stems from Western rather than Indigenous understandings and expertise (p. 13). Similarly, Daniels-Mayes (2017) wrote from a First Australian education context and described how Indigenous Australians often are viewed as deficient or inferior and that these deficit models of thinking, which impact heavily on Indigenous cultures and societies, stem from colonialism and are closely connected with racism and discrimination. However, through the use of Indigenous research paradigms, Indigenous methodologies and Indigenous ethics, there is a

potential for research with Indigenous peoples to disrupt deficit thinking and create positive outcomes for communities.

One such example is the "policy regarding research and project collaborations with Sámiid Riikkasearvi", launched by Sámiid Riikkasearvi (see SSR, Svenska Samernas Riksförbund or Swedish Sámi National Association) in 2019 (Sámiid Riikkasearvi, 2019). Sámiid Riikkasearvi is an interest organization for Sámi reindeer herding in Sweden and its members consist of Sámi reindeer herding communities (samebyar) and Sámi Associations. The 2019 document is a set of guidelines and a toolbox for researchers or project workers who want to research (or work with) matters connected with reindeer herding, Sámi reindeer herding communities or Sámi Associations in Sweden. The intention is to provide a form of handbook to be utilized by both Sámiid Riikkasearvi and researchers or project workers interested in collaborating with the organization or any of its members, this to ensure that collaborations are carried out based on mutual respect between all parties. A concrete way to achieve this is the checklist with questions to be answered by the researcher or project worker prior to contact with Sámiid Riikkasearvi, provided as an appendix. The Sámediggi (Sametinget or Sámi Parliament in Sweden) has expressed similar ambitions in their recent document to the Swedish government (Sámidiggi, 2019): "The Sámi Parliament's views on the government's research policy" (Our translation of "Sametingets synpunkter på regeringens forskningspolitik," in Swedish).

These developments within Indigenous research in the Swedish arena follow an international progression in the field. Particularly in settler and colonized nations of the Pacific Rim, such as the United States, Canada, Australia, and New Zealand, there has been far reaching developments to make research inclusive for Indigenous communities, for instance through Indigenous-led research projects and through the acknowledgement of Indigenous research methodologies and Indigenous ethics (See for example AH&MRC, 2016; AIATSIS, 2012). Such guidelines have been established to ensure that research with and about Indigenous peoples follow a process of meaningful engagement and reciprocity between the researcher and the individuals and/or communities involved in the research (AIATSIS, 2012).

Aims and Methods

The aim of this paper is to analyse and unpack what constitutes the relationship between research and practice in research policy within the EU in general and in practice-based educational research in Sweden in particular. This is done through borrowing the concepts of respect, reciprocity and relationships from Indigenous methodologies as mentioned above. Thus, our focus in this paper is the actor in research that regulates research policy and how funding, on national and EU levels, should be distributed. How the research is implemented by researchers and practitioners is beyond the scope of this study.

For closer analysis, we have selected a number of formal policy documents intended to steer or guide research. From the EU, we chose two documents: the EU Regulation to Establish the Research and Innovation Programme Horizon 2020 (No 1291/2013, European Union, 2013) and the Framework Regulation for Horizon 2020 (No 743/2013, European Council, 2013). From the Swedish context we have selected government decisions, official reports, and other documents that relate to the implementation of the Swedish Institute for Educational Research (Skolforskningsinstitutet) and ULF-avtal. The Swedish Institute for Educational Research is a government-funded research council for practice-based educational research in preschools and schools. ULF (utbildning/education, lärande/learning, forskning/research) is a government initiative with the aim to develop structures for practice-based educational research. Four universities received a total of SEK 12,000,000 for 2017–2021 to "develop and

test sustainable models for cooperation between the academy and school concerning research, practice and teacher education" (Åkesson et al., 2017; Regeringsbeslut, 2017).

Firstly, the selected texts were read closely and notes, general comments, and annotations were made. Secondly, the documents were re-read in order to make a thematic selection of quotes responding to the concepts of respect, reciprocity and relationships. The quotes were closely analyzed for meaning and in some cases thematic roles with a particular focus on agents and recipients.

Findings

Similar to Indigenous methodologies, practice-based educational research strives to be inclusive, transparent, and guided by real issues highlighted within and by the school communities. However, when policy on practice-based educational research is scrutinized through a lens modelled on Indigenous research methodologies, some discrepancies come to light.

EU and Horizon 2020

The main purpose of Horizon 2020, central to the EU documents, is to contribute to society and to the economy: "The general objective of Horizon 2020 is to contribute to building a society and an economy based on knowledge and innovation across the Union" (European Union, 2013, p. 110). This overarching goal is complemented by two specific objectives: "Spreading excellence and widening participation" and "science with and for society" (European Council, 2013). In the first of these two specific objectives, the importance of "unlocking excellence and innovation" (European Council, 2013, p. 1031) is brought to the fore. Participation refers to processes where strong research institutions are teamed with research institutions in low performing RDI regions in order to "fully exploit the potential of Europe's talent pool" (European Council, 2013, p. 1031). In addition, research should widen participation to society and "offer expert advice to public authorities at national or regional level" (European Council, 2013, p. 1031). Participation is closely connected with excellence; the purpose of participation means participation between researchers and where researchers are experts, expected to participate with their knowledge in policy and in societal processes.

In the second specific objective "science with and for society" the aim is threefold "to build effective cooperation between science and society, to recruit new talent for science and to pair scientific excellence with social awareness and responsibility" (European Council, 2013, p. 1031). Similarly to the first specific objective, talent and excellence are in focus as recipients of the aim, but here they are coupled with cooperation between science and society and social awareness and responsibility. Ideas and talent have to be harnessed and that can only "be achieved if a fruitful and rich dialogue and active cooperation between science and society is developed" (European Council, 2013, p. 1031).

There is an emphasis on the need to focus on "ethical, legal and social issues that affect the relationship between science and society" but also on the fact that cooperation between science and society will "enable a widening of the social and political support to science and technology in all Member States" (European Council, 2013, p. 1031). On the one hand science has brought about ethical, legal, and social issues that can be approached through collaboration, on the other hand collaboration should strengthen social and political support to science. The idea that society and policy should support research is further emphasized when the commission states that "public investment in science requires a vast social and political constituency sharing the values of science, educated and engaged in its processes and able to recognise its contributions to knowledge, society and economic progress" (European Council, 2013, p. 1031). It is the values of science and its contributions that should be shared by a social and political constituency, not the other way around.

However, when the focus of activities connected with this specific goal are described, mutual responsibilities and acknowledgement are put forward. Among other things, activities shall "foster sustainable interaction between schools, research institutions, industry and civil society organisations" and "integrate society in science and innovation issues, policies and activities in order to integrate citizens' interests and values and to increase the quality, relevance, social acceptability and sustainability of research" and "develop the governance for the advancement of responsible research [...], which is sensitive to society needs and demands, and promote an ethics framework for research and innovation" (European Council, 2013, pp. 1031, 1032). Purposes for integrating society and research are not only to gain support for research but also to build long-term relationships, increase research quality and relevance, and to listen to needs and demands from society, and there is a call for an ethics framework.

To sum up, the Horizon 2020 discourse about participation and collaboration between research and society is somewhat contradictory. On the one hand there is a discourse of expertise, excellence, and talent where the driving forces behind participation and collaboration is to find talent and to develop excellence. In this discourse, research is connected with expertise that should be supported socially and politically, but where the expertise also has a responsibility to advise in social and political processes. On the other hand, there is a responsible and collaborative discourse where research has created ethical, legal, and social issues that should be addressed. Collaboration is key in order to not only address these issues but also to ensure sustainable research of high quality and societal relevance. In particular the values and interests of citizens are brought forward as factors that will increase research quality, relevance, acceptance, and sustainability. While it is stated in the documents that collaboration is key, collaboration in itself is not specifically described as a relationship on equal terms, thus creating potential power imbalances.

Swedish Educational Research Policy

In the Swedish policy documents the main aim of practice-based educational research is to contribute to teaching, to pupils' learning (and learning outcomes), and to teacher education. All translations from Swedish to English are ours. In 2015, the Swedish Government initiated the Swedish Institute for Educational Research with the specific instructions to,

Contribute to providing good opportunities for those in the school system to plan, implement and evaluate teaching with the support of scientifically underpinned methods and ways of working. The authority shall contribute to good conditions for the development and learning of children and pupils and to improved learning outcomes for pupils. (SFS, 2014/1578)

In the Government decision about the ULF initiative the focus is on the scientific base in school and in teacher education: "The experimental activities will contribute to a strengthened scientific base in teacher and preschool teacher education and in the school system" (Regeringsbeslut, 2017). On the ULF-avtal (n.d.) website the term scientific base is further explained: "This means that teachers should base their professional practice on research and that school development should be permeated by a scientific approach" (para. 2). It is further explained how this does not happen enough in schools and how there is "an experienced gap between theory and practice, which means that educational research cannot always be applied in school activities" (para. 2) which justifies the need to develop models for collaboration between research and practice. Similarly to the EU documents, these national documents include a view of research as expertise. Research should provide methods that can improve

pupils' learning and knowledge outcomes, in accordance with current educational policies.

Relevance and scientific quality are brought forward as central concepts in all the documents. In order to receive funding from the Swedish Institute for Educational Research, scientific quality and relevance should be valued equally: "the research funded by the institute must be of the *highest scientific quality and relevant*" (Skolforskningsinstitutet, 2019, p. 9). Relevance means that "there are practice-related dilemmas or problems to deal with and remedy, and that research can help improve teaching" (Skolforskningsinstitutet, 2019, p. 9). As read on the ULF-avtal (n.d.) website homepage, relevance can be achieved when collaborative models allow for reciprocal initiatives: "The collaboration models should lead to research that is relevant to the school by allowing professional groups within the school to take the initiative for research, not just researchers in the academy" (para. 4). However, even if relevance indicates reciprocity, the concept of scientific quality is directional. Scientific quality is connected back to the scientific base of education or teacher education in that it will "develop teachers' knowledge base" (Skolforskningsinstitutet, 2019, p. 9), again reflecting a research as expert discourse.

Reciprocity is not only brought to the fore in relation to relevance. On Swedish Institute for Educational Research (2019) website, the Institute encourages teachers to be part of applications and research teams in order to make use of and integrate their professional knowledge and tried experience. The entire ULF initiative is underpinned by a need to develop structures and models for collaborative research. There are different examples of what collaborative models could encompass, such as collaborative research projects, research environments in schools as well as in universities, and positions that include both teaching in school and research. However, reciprocity between research and practice in the policy documents does not apply to funding from the Swedish Institute for Educational Research (2019) as read on their website: "A researcher has to be employed in a research environment in order to receive funding" (n. p.).

The Swedish policy documents that direct practice-based educational research reflect an expertise discourse where research provides school or teacher education with knowledge in order to improve practice and knowledge results. At the same time there is reciprocity, mainly in the strong emphasis on relevance, but also in an encouragement to include practitioners in research teams and suggestions to create research environments in schools as well as at universities. The documents show a willingness to move research closer to practice but the main responsibility to date lies with research, in responsibility for funding and for the development of collaborative structures. Practice should contribute by taking initiatives to research and by participating in research teams. Again, this suggests that there are certain power hierarchies in place potentially impeding the creation of relationships on equal terms.

The EU documents include three actors that feed into each other to different degrees: policy, research, and society. Policy supports research, society provides input to research in order to increase quality and relevance, and research feeds back into both society and policy. The Swedish educational documents include two of these actors: research and practice explicitly. Research supports practice and practice provides some input to research, in particular to enhance the relevance of research. Policy is present, but implicitly as the instigator of rules and regulations and as a main funder of educational research.

Discussion

Our understanding of Indigenous methodologies is that they are holistic research perspectives that build upon one another in order to create complete research processes. For example, the three R's—respect, relationships and reciprocity—are interdependent when applied to a

research process; mutual respect builds on the formation of equal relationships that are cared for and sustained—these in turn depend on the willingness to work inclusively and reciprocally. It is, of course, possible to show respect without caring about relationships or to form relationships without reciprocating; however, the outcome will not be mutual processes on equal terms.

Respect, Relationships, Reciprocity

The concept of "respect" in the context of Indigenous research means an intention to form mutually respectful and collaborative relationships between researchers and research participants. Thus, the concept includes the commitment to real partnerships and to performing research in non-extractive ways. "Relationships" is therefore in part a product of the mutual respect but also extends this concept to include cultural safety (see Bin-Sallik, 2003, for a discussion on this) and building relationships over time that last beyond the actual research project. This creates an extended mutual accountability between project participants, where researchers cannot simply show up, extract data and leave. Furthermore, building relationships includes the concept of "giving back." or "reciprocity," which means that the research process is a mutual process where the researchers need to give something in return for the information shared by the research participants. These three Rs in Indigenous research should guide agreed protocols, a type of additional research ethics agreements designed through dialogue between researchers and research participants on equal terms. The agreed protocols can then direct the process of giving back.

In the analyzed documents, contribution to society, or to practice, is fundamental. The main purpose of Horizon 2020 is "to contribute to building a society and an economy based on knowledge and innovation" (European Union, 2013, p. 110), and the rationale for initiating the Swedish Institute for Educational Research or the ULF project is to contribute to providing good opportunities for those in the school system, both teachers and students. The EU explicitly expects researchers to provide input to policy thus feeding back not only to research participants but also to the societal system at large. There is also a belief that research quality will improve through participation, leading to an understanding of reciprocity as an, at least to some extent, interplay between policy, research, and participants/society. In the Swedish documents, giving back refers specifically to the school system: to teachers by providing research-based teaching approaches and to students that will ultimately benefit by improving knowledge results. Implicitly, knowledge refers to the learning outcomes in the curriculum, indicating that research should be connected with, or even directed by, current curricula and educational policy. Research is not expected to feed back to policy and there is no explicit statement that practice can feed back to research. Even though the sense of contribution is strong in all the analysed documents it is mainly a one-directional stream, research should contribute to society. In some aspects society, or practice, contribute to research, by enhancing quality (in EU) or by securing relevance. However, in both systems, it is research that is expected to apply for funding, manage projects, and disseminate results, constructing a relationship that is only partly reciprocal.

There is a strong and explicit discourse of expertise both in the EU and the Swedish documents. In the EU framework, one main purpose behind citizen science is to find expertise that can contribute to research and ultimately to society. At the same time, the relationships between research and society are to some extent reciprocal. Not only citizens' interests but also their values should be integrated with research in order to create "sustainable research," which indicates a sense of mutual respect and a willingness to form real and long-term relationships. In the Swedish document research also emerges as expertise. The purpose of research is to assist practice, while practice is encouraged to be involved, to initiate research and to be part

of research teams. The documents reveal an unbalanced relationship, though. The main responsibility for all aspects of the research lies with the research part. Practice should feed into research processes in order to secure relevance of projects, and they are encouraged to be part of research teams. In these documents, practice and society can be viewed as experts to a certain degree, experts in defining what issues should be investigated in their practices; however, the documents reveal that the "real" experts are the researchers who hold the main responsibility for the entire research process, including the power to make overarching project decisions.

Conclusions—Building Respectful Relationships in Educational Research

Crucial to Indigenous research methodologies is the concept of respect, including the ambition to extend the concept of expertise to include both research participants and researchers on more equal terms; the commitment to creating long-term relationships between researchers and research participants thus creating a basis for more valid research results that are relevant to the participating communities; and research being performed in non-extractive and sustainable ways with respect for all participants, as well as their environments, through all parts of the research process (Kovach, 2010; Louis, 2007). Indigenous methodologies also include an ambition to disrupt and question hierarchies of power, created in colonial contexts that are today the norm (Tuhiwai Smith, 2021). Linda Tuhiwai Smith (2012) stated that "Researchers must go further than simply recognizing personal beliefs and assumptions, and the effect they have when interacting with people" (p. 175). She further explained that there are particular questions that need to be asked prior to performing research in cross-cultural contexts. The following questions have been identified as particularly valuable by Tuhiwai Smith (2012):

- Who defined the research problem?
- For whom is this study worthy and relevant? Who says so?
- What knowledge will the community gain from this study?
- What knowledge will the researcher gain from this study?
- What are some likely positive outcomes from this study?
- What are some possible negative outcomes?
- How can the negative outcomes be eliminated?
- To whom is the researcher accountable?
- What processes are in place to support research, the researched and the researcher? (p. 175-176)

With inspiration from Tuhiwai Smith's list along with the list of questions/guidelines formulated by the Sámi reindeer herding branch organisation, Sámiid Riikkasearvi, we identify, in particular, three issues relevant to actors involved in participatory educational research.

Interpreting the Concept of Expertise in Policy, Research and Practice

As shown in the documents analysed, current hierarchical structures, attitudes, and values dictate who is deemed an expert. Although there are some changes underway, partly evidenced by the encouragement of collaborative research projects, there is a need for further scrutiny of what constitutes "expertise." The relationships between researchers and participants can benefit from an honest dialogue about what expertise is and who is an expert. Bergmark (2019) stated that "some conditions for creating caring researcher–teacher relationships include

valuing both researcher and teacher expertise, [and] recognizing the importance of researchers and teachers learning to know each other and their perspectives" (p. 11).

Implementing Reciprocity Throughout the Entire Research Process

A research process contains a number of steps from identification of research questions or problems, data collection, analysis to dissemination of results. The analyzed documents stated that practice should contribute to the identification of relevant issues to be researched and also benefit from the research results. However, this requirement creates a gap where practice is not necessarily involved in the steps in between, such as the analysis of data, or even the data collection. One possible consequence can be less relevant results. Margaret Kovach (2010) stated that "the proposition is that methodology itself necessarily influences outcomes. Indigenous research frameworks have the potential to improve relevance in policy and practice within Indigenous contexts" (p. 13). When related to a practice-based educational research context this would mean that reciprocal relationships with teacher and school participation throughout the process could improve relevance for practice.

Building sustainable and respectful Relationships between Policy, Research and Practice

Both Horizon 2020 and the ULF-avtal initiatives are examples of attempts to create overarching structures for participatory (educational) research. Initiated on the policy level, funding is directed towards collaborative aims and directed by formal agreements. Thereby relationships may, in time, become sustainable regarding how the funding for research, and collaboration between universities and school areas are organized. However, we suggest that close attention is also paid to how relationships are built and maintained on other levels in the system, in particular relationships between those who are closely involved in the research, for example the researchers and the teachers. In Indigenous contexts written agreements can be used between researchers and participants in order to assist the development of sustainable and respectful collaborations, a tool that has also been suggested for educational research (Bergmark, 2019; Beveridge et al., 2018).

The field of practice-based educational research holds great potential for being at the forefront of further development of ethical, relational, and truly collaborative research initiatives. Such initiatives would provide starting points for the construction of models where research, practice, and policy inform each other with a joint goal to improve sustainable societies. One spark to initiate that further development might just be to borrow some insight from some of oldest research methods known to humanity.

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