

Towards a “practice-based evidence” approach. The relational expertise model to promote public engagement between research and educational practice

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Abstract

In this contribution, it is proposed a methodological reflection about the public engagement of university researchers, considered as an emergent field of inquiry in the educational sciences. To promote effective and lasting University-Community partnership, it is proposed the “Relational expertise” model as respectful of the professional competencies in the educational services. Relational expertise relies on the sociocultural theory of learning, and it requires the identification of a shared unit of analysis as the point of reference for discussion about daily educational practices, to promote an increased participation in social life. Accordingly, a methodological approach is worked out to gather evidence that makes visible the complexity of the educational interactions in the different contexts of daily practices, where the control of variables is impossible. The practice-based approach is alternative to the “evidence-based policy and practice” since the former gathers evidence saturated with the contextual realities that mediate professional expertise.

A case study of University-Community engagement is presented to point out the educational interactions in the existing conditions of an after-school practice as a shared unit of analysis, as well as the nature of evidence generated.

Key-words: public engagement; relational expertise; unit of analysis; qualitative inquiry; contextualized evidence; after-schools

First submission: 04/03/2025, accepted: 28/05/2025

1. Public engagement and research perspectives

“Public engagement” is becoming an increasingly important dimension of

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the researchers' work in the universities, since it refers to their responsibility to frame public concerns in methodologically robust terms, supported by evidence, to promote social and community changes in the direction of social justice.

The United Nations' "Transforming Our World: The 2030 Agenda for Sustainable Development" (2015) establishes 17 Sustainable Development Goals (SDGs), as a call to address the world's most pressing challenges. The universities are expected to contribute to the achievement of the goals by disseminating expertise as well as by designing interprofessional initiative to work out responses to maximize the application of research evidence to social well-being and civic participation.

Universities across Europe are required to demonstrate the social impact of their research; consequently, methodological reflections are conducted to identify the scientific criteria to evaluate beneficial changes produced by university research on the larger communities (Oancea, Florez Petour and Atkinson, 2017). In Italy, ANVUR (2018) has introduced a dedicated Framework, along with a system of indicators, to evaluate initiatives of social and public engagement by the universities, as part of their institutional mandate.

Opportunities to disseminate research findings to the wider community may be based on informative activities, leading towards an increased public awareness of the scientific discoveries; a second line of university-community partnership consists in the public application of evidence from research through guidelines and in-service training. A third main pathway is the development of the collaboration between professionals and researchers to frame public concerns in ways that are both grounded on scientific evidence and respectful of the practitioners' knowledge.

In this contribution it is proposed a "practice-based approach" to community engagement (Eraut, 2004; Stamou, Oancea and Edwards, 2022), which consists in the convergence of research and professional expertise to reframe community concerns in inquiry-oriented way, highlighting the complexity of educational practices and aligning different perspectives to promote increasing participation and social justice in the community. The "relational expertise" model (Edwards, 2010) is proposed as the condition to pursue the practice-based approach to generate evidence that is relevant for the purpose of dealing democratically with community concerns. In the "relational expertise" model, researchers and professionals align their specialized expertise towards a shared unit of analysis, to highlight the relevant dimensions of the educational situations, interpret them in the different professional perspectives, and introduce changes towards a more inclusive and democratic educational practice.

2. The “evidence-based practice” approach to promote quality in education

Evidence-based policy and practice is an approach aimed at the dissemination of research-based evidence to increase the quality of the Welfare services (Oakley, 2007; What Works Clearinghouse, 2014). The central tenet of the evidence-based approach is that educational practices could be significantly improved if they incorporate research-based evidence, especially from randomized controlled trials, since its underlying research design requires the random assignment of subjects to different experimental conditions as well as the control of latent variables; variable manipulation and comparable experimental/control groups can uniquely offer justified knowledge about causal relationships between treatments and outcomes. Usually developed through academic research, evidence from randomized controlled trials can be reformulated as a set of Condition-Action rules (of the type: “IF... THEN...”) from which practitioners derive practical interventions and achieve the predefined outcomes of the institutional settings (Slavin, 2008).

Although practitioners are expected to improve their practices on the basis of informed findings from standardized research, the process of contextualization of its evidence from the experimental setting to educational practice is not straightforward, since controlled conditions “cannot be sensitive to the complexity and variability of social rules and expectations” that are constitutive of educational expertise (Pring, 2004, p. 207).

Furthermore, the evidence-based practice approach standardizes the great variety of settings, people, and values in the educational field. More specifically, it may endanger informal educational practices, such as after-schools and youth centers, in which open timescales, trustful relationships, expression of personal voices and conviviality are educational ends in themselves, rather than means for externally defined outcomes (Davies, 2021; de St Croix, 2018).

Standardized methods tend to give only narrow consideration to the expertise the professionals develop in their everyday practices. Furthermore, since evidence is generated in specialized academic environments, the work of the practitioners can be described only from the point of view of the researcher, “as it were effortless, taking place in a universe from which social gravity is absent. What is left out is the weight of history and of immediate material circumstances”, as Erickson (2006, p. 243) has aptly expressed. Consequently, the relevance of those contextual dimensions in the institutional practices that potentially affect professional expertise is overlooked. Community practitioners cannot limit themselves to the application of the necessary principles developed by experts in academia; in fact, they are constantly

engaged in situations where the control of variables is impossible and give attention to the manifold conditions of their institutional environment, when they “make the difference” in the lives of people. In this perspective, the professionals constantly enact skillful interventions in the circumstances of their practice, in relation to other people, the institutional mandates, the available tools, in their historically evolved settings.

3. Towards the practice-based evidence

Education is a complex system of interactional events, grounded upon cultural norms of participation and the conditions of the institutional practices; consequently, a new conception of the educational expertise is needed, as well as a new perspective of the public engagement of university researchers working on community concerns.

Therefore, a practice-based methodological approach is expected to reconstruct the complex system of norms, presuppositions and interactional acts that are constitutive of the educational events, as well as to gather evidence that is congruent with the participants’ perspectives in the real conditions of their daily practices.

In this contribution, it is proposed that social and community impact of university research should be based on an epistemological perspective that is sensitive to the complexity of social life, especially in the educational field. This requires:

- the recognition and respect for educators’ expertise;
- the convergence of researchers’ and professionals’ expertise on a shared unit of analysis;
- a methodological approach to gather evidence that is relevant of the complexity of the educational processes in the real conditions of daily practices.

3.1. The nature of professional expertise

According to its classical definition, professional “expertise” consists in the capacity to recognize the conditions that characterize a class of recurring problems and to activate the appropriate intervention strategy. This definition can be applied only to static and repetitive tasks; however, in the welfare professions, problems evolve rapidly and cannot be easily interpreted by recurrent patterns.

In their daily practices, educators face multidimensional situations, in which each relevant factor evolves in relation to a series of other dimensions; it is not

possible to have a single point of view capable of predicting the dynamics of complex systems.

An alternative definition of “expertise” refers to the dynamic adaptation to the evolving constraints of the emerging problems in the professional field; it implies high levels of awareness and creativity to recognize the relevant features of a particular event, to integrate them in a model of the situation, and to explore the consequences of alternative interventions (Zimmerman, 2012; Gegenfurtner; Gruber, Lehtinen and Säljö 2024).

4. Relational expertise

A practice-based approach can promote projects of public engagement with a lasting impact on the democratic life of the communities because it is based on the recognition and respect of the educators’ expertise, as well as on the collaborative work of researchers and practitioners, supported by the researchers’ methodology to gather relevant evidence of educational interactions in the complexity of the institutional conditions of daily practices.

In this contribution, the application of the innovative model of “relational expertise” (Edwards, 2010) is proposed to deal with the emerging challenges in the educational services. The model diverges from the “evidence-based” models in the new public management, since it is based on dialogue between different professional expertise to promote professional reflection and transformation. According to the “relational expertise” model, professionals with different expertise work out collaboratively on a shared unit of analysis, to make evident the complexity of the educational situations, as well as to reflect on alternative pathways to increase the children’s participation in the social life.

The “relational expertise” model derives its two principles from the sociocultural theory (Cole, 1996; Edwards, 2010; Wertsch, 1996): the inextricably mediated nature of human interactions and the culturally supported competence to reflect on symbolic and immaterial objects.

Expertise is not a simple mental event, but it is adaptive to specific cultural conditions, therefore it consists in the use of the mediational tools in practice; from a cultural point of view, participants enter into dialogue on the basis of a set of categorical systems, often implicit, which are mechanisms for organizing experience, reasoning and predicting the development of their initiatives. Different professional groups develop both different categorical systems and specialized symbolic representation tools to record and reason about the events and conditions of their work (Wertsch, 2007). The meeting of different professional types of expertise to work on a complex problem and introduce

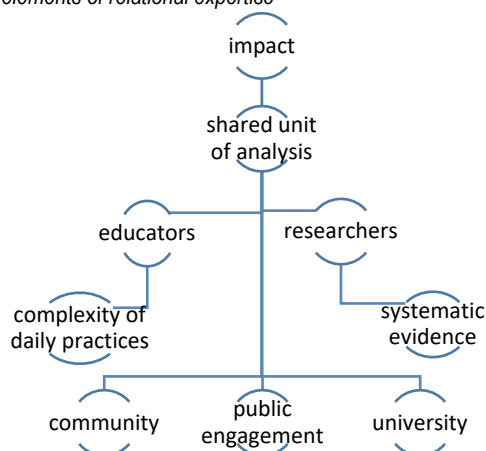
some changes in educational practices is not a linear process. In fact, each different expertise defines specialized purposes, conceptualizations and methods, thus giving prominence to different elements of the same problematic situation (Edwards, Lunt and Stamou, 2015).

4.1. Unit of analysis

The concept of “relational expertise” does not only refer to the work of different professionals in relation to a common problem, but mainly to the joint construction of a unit of analysis by professionals with different perspectives and methods; the participants with different professional skills can share a common focus of attention, reflect on the relevant elements in complex educational situations and introduce transformation processes in the direction of increasing the participation of the subjects involved (Pring, 2000).

The choice of the unit of analysis is necessary to give prominence to some aspects considered salient within the educational practices on which the discussion takes place. The participants identify the relevant dimensions of the practice, frame them conceptually, making the categorizations and perspectives of each professional expertise converge. The choice of the unit of analysis is the point of support in every perspective, since it allows the construction of a shared model which incorporates the relevant characteristics of the educational practice (Säljö, 2009). The evidentiary basis framed by the unit of analysis guides the interpretation of the conditions that impact on practice and supports professionals with different expertise to create a dialogue that has as its object the critical elements that emerge from the model.

Fig. 1 - The constitutive elements of relational expertise



5. A case study of University-Community Partnership

A case study of University-Community engagement is presented, to highlight the development of a “relational expertise” project between a researcher and a professional team of educators in an afterschool service. A shared unit of analysis was constructed, and the related textual documentation was gathered by the researcher during fieldwork and then shared in workshops with educators to highlight the complexity of adult-child interactions and the effects of adult responses to children’s initiatives as opportunities to learn. Potentialities as well as critical points of the application of the “relational expertise” model are pointed out.

On the shared assumption that “education is a complex range of transactions between adults and children, oriented towards the promotion of children’s participation in the social life” (Pring, 2000, p. 121), educational interactions emerging within institutional activities can be considered as acceptable units of analysis in inquiring professional expertise, since they condense all the relevant elements that characterize the educational activities and present also unforeseen events that require flexibility and innovation to achieve the intended goals of the practice.

Educational interactions are mediated process that implies manifold dimensions of design and activity (Wertsch, 1996).

Fig 2 - The unit of analysis and its constitutive dimensions

<i>Dimensions</i>	<i>Evidence about</i>
Setting	organization of the environment; pictures on the walls
Norms	define the reciprocal roles of educators and learners; the schemas that guides the interpretation of the interactions in specific settings
Artefacts	the tools and objects that mediate the participants' actions during the activities
Goals	the shared orientation of interactions
Dynamic assessment	the range of educational strategies to support the learners to close the gap between the observed and the expected performance

The educators interpret the ongoing situation and intentionally act to achieve educational objectives by recognizing constraints and resources of the setting, using specific expertise, attuned to the unfolding situations.

5.1. Documenting evidence

In the university-community engagement presented in the contribution, the “relational expertise” model was applied to promote vulnerable children’s

school achievement, by a collaboration between a researcher and a group of educators working in a system of afterschool services. The researcher enters the educational setting and takes notes on the children's participation in the daily educational activities, according to the relevant evidence framed by the unit of analysis (the mediated educational interactions).

The descriptive texts derived from fieldwork are introduced in the discussion with the educators, since they “resonate with participants for the purpose of provoking responses, including but not limited to beliefs, perceptions, emotions, effective responses, reflections and decision making” (Skilling and Stylianides, 2020, p. 542). By common reference to the scientific documentation, participants can point out the relevant elements that characterize the complexity of the educational situations, give salience to the specific events that constitute the opportunities for children to grow, as well as recognize the disparate elements (the ‘gravitational forces’) that constitute their expertise, which impact on the educational transactions; consequently, this process may lead to the envision of alternatives to the traditional paths.

In the system of after-school service that participated to the project of University-Community partnership, primary school children (6-11-year-olds) do their homework together, according to their grade. Since there is no general agreement on the institutional mandates to educators in supporting children, the organization of the activity is very flexible: some educators just make sure that the children do their homework and control the correctness of the procedures; other orchestrate the children's cooperative interactions and offer them a variety of feedback strategies to promote their learning

Extract 1. An example of procedural agency

Children in their 3rd and 4th grades: 2 boys and 16 girls (8-9 years of age); 1 female educator (Maria) and 1 male educator (Felice), working in two separate wings of the same room, supervising groups of children doing different assignments. Both the educators develop a slightly more flexible script than that in use in the classrooms. The children do their tasks sitting in groups of 2 or 3, each at one's own personal pace. They are allowed to ask for help from the peers. When a child needs the support of the adult, goes to the educator's desk. The adult's intervention can focus either on the indication for the correct procedure, or on the evidence of a mistake. Only a limited metacognitive support is offered. Ambient music plays in the background.

A child, Damiano, is exercising the multiplication algorithm by applying the column method (the homework sheet calls these repetitive exercises as “consolidation tasks”). Damiano correctly carries the numbers at the same level of magnitude, but he does not recognize the positional value of the digits and as consequence he puts the digits in the wrong columns:

63 x
 24 =
 252 +
 126 =
 378

The educator Felice tells him “The trick is in the order [he means “in the right tabulation of the digits”], please try again”. However, Damiano is not effectively guided to understand the complex position value convention and he is lost in his mental model of the multiplication algorithm; another child tells “calm down and look”, showing him the correct procedure; Damiano repeats, completing the exercise.

Fig. 3 - Evidence related to the unit of analysis in setting 1

Setting	School based arrangement of furniture
Norms	Reproducing the school norms: children work individually with minimal support from peers
Goals	Recognition of the correct procedure
Artefacts	Close tasks assigned by the classroom teacher
Dynamic assessment	Procedural feedback: information about the mistakes and indication of the correct procedure

Extract 2. An episode of effective educational expertise

10 boys and 7 girls (6-7-year-olds, first graders) and two female educators (Alice and Elisa).

The room is very small; there are a first row, with a single desk and a 3-4 place table. In each of the other three rows there is a 4-5 place table.

On the front of the desks there are a blackboard and a clock. Alice the educator tells me that on the blackboard are always signed the homework tasks and the scheduled time when the children are allowed to have a little break. They encouraged the children to focus on the concept or procedure underlying the tasks, rather than in terms of the number of pages (which is the form the children prefer, since it makes clear the time-load of the assignments). This is intended to enable the children to self-regulate their efforts on the tasks.

The children have a large autonomy in selecting where to sit and with whom to do their homework.

The two educators establish a shared activity – doing homework – and offer a differentiated support, according to the children's cognitive efforts. No child is doing the tasks alone: a child who has already finished the arithmetical operations helps the others in the group.

The educator Alice asks the group of children, “Do additions require either ‘plus’ or ‘minus’?”; Arianna says, “the plus”. The educator explains the strategy of the number line suggested in the textbook: starting from the value of the first number and then making as many ‘jumps’ as represented by the other addends, then reading the last number on the line: this is the value of the addition.

Rosaria counts “1 + 8” by starting from 1 on the number line, then counts 8 jumps and correctly writes down ‘9’.

The educators move constantly between the desks looking for children needing help. For example, Elena is doing “2 + 5 + 1”, she starts from ‘2’ and makes six jumps and writes down ‘6’ because she only calculates the number of ‘jumps’ and the initial value ‘2’ on the number line is not considered. Alice helps Elena by directing her attention to the starting point of ‘2’ as different from ‘0’ therefore making explicit her mistake. Luca is doing “4 + 2 + 2 + 3”. He starts from ‘0’ counting the sequence of numbers without keeping track of the numbers he is adding, getting lost; he starts from ‘2’ and counts without using the number line. Elisa helps him by putting her finger on the starting point ‘4’ and guiding him to perform the correct sequence of steps “and now, which addend? Where you get?”

Interview with Alice and Elisa

The two educators tell me that they put great effort to promote children’s group work; they don’t want the most vulnerable children to be isolated and stigmatized (Elisa quotes the title of Yang Zehmou’s movie “No one less” as their maxim). They have talks with parents to work out shared strategies to support their schooling. In many cases they also discuss strategies with the schoolteachers, but they complain that this happens only in individual cases, although there is formal protocol.

Alice tells me that the educators have an unconditioned acceptance of the children, but they do not tolerate lack of rules; as she says: “I do not approve if you don’t want to read; but I’ll help you in reading; if writing is too effortful for you, I’ll write for you until you are able to”.

Elisa finds a constraining condition to the development of the afterschool, namely the fact that the Municipality organization does not support their imagination and commitment to introduce changes in the institutional practice.

Fig. 4 - Evidence related to the unit of analysis in setting 2

Setting	The room affords small group work; a clock on the wall helps the children to organize their efforts on time; atlases, maps support their activity
Norms	Maintaining the group cohesion; helping others; reflecting on the procedures and understanding the concepts
Goals	Promoting the children’s self-regulation of their own learning
Artefacts	Close tasks assigned by the classroom teacher
Dynamic assessment	Variety of strategies: procedural (to understand how to perform a task) as well as metacognitive (to reflect on one’s own reasoning strategies)

5.2. *The workshops*

The university-educational service collaboration consisted in regular workshops in which participants (the volunteer educators and the researcher) developed a method of joint attention: the descriptive episodes are used as common reference points to conduct talks on the relevant events and situations that constitute the educational interactions in the daily practices, to highlight some critical features emerging in practice that could promote children's learning, as well as to make explicit some presuppositions that guide their work. The ongoing discussions also promoted both the recognition of the professionals' expertise and the opportunities taken or not taken to support the children's learning.

The fieldnotes enable the researcher to highlight and document the democratic educational culture shared by the professionals: they do not stigmatize the children's anti-social behaviors, when they occasionally occur, but they reframe the events in the light of mutual respect; they are inclusive, since no child is identified by her/his learning difficulties. However, they have developed different expertise in balancing the concurrent objectives in their support of children's homework. Since they are not entitled to have a formal teaching role, they are considered to have a peripheral and simply remedial role in the complex network of schools, educational services and families. Consequently, some educators accept to limit themselves to control children in doing the tasks and to check the correctness of their results. Many educators give only procedural feedback, as the nature of the school tasks requires the recall of facts and the recognition of given information. Other educators (such as Alice and Elisa) try to develop a more encompassing expertise, by sustaining children's group work and the promotion of self-regulated learning, each attuned to the evolving situations.

Conclusion

In this contribution, a methodological reflection on the proper conduct of scientific inquiry to support a stable and lasting impact of the researchers' public engagement project is proposed. The practice-based approach is grounded on the recognition of professionals' expertise, as well as on the construction of a shared unit of analysis and on relevant evidence gathered during the fieldwork, to bring out the complex texture of the educator-child interactions, mediated by the specific conditions of the community services.

Working relationally between university researchers and practitioners can improve the quality of the educational institutions, by the convergence of the

researchers' and the professionals' different types of expertise. By common reference to the scientific documentation, participants can recognize the specific dimensions of their daily practice that impact on the educational transactions; consequently, this process may lead to the envision of alternatives to the traditional pathways.

By sustaining dialogue to devise new perspectives on practice, the academic researcher becomes both a committed observer and a partner in the community, supporting the professionals in developing a more encompassing view of their expertise.

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