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## **Evidence-Based Practice in Education: Premises, Dilemmas, Prospects**

**ABSTRACT:** This paper discusses the possibilities and limitations in the dissemination of evidence-based practice in education (EBE) in Poland, focusing on a number of issues relevant to the implementation of evidence-based practice (EBP) in education. The first refers to the essence of this concept and its relationship to other instruments used in professional practice: evaluation and action research. The second is the problem of data identification, which may be given the status of “evidence.” The article concludes with a discussion of opportunities for teacher professional development created by EBP.

**KEYWORDS:** evidence-based practice, EBP, evidence-based education, EBE, evaluation, professionalism.

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*Evidence-based practice* (EBP) merits scrutiny for many reasons. This concept has recently enjoyed a growing interest in many professional domains. EBP is present, in-ter alia, in medicine, social work, politics and—of late—education. The focal concept of this essay deserves attention because of its intellectual load. This approach can be found in many research movements in modern social sciences. The goal of EBP is to determine a strategy of intervention that would integrate three spheres: the needs of those at whom intervention is directed (the client, patient or student, depending on the field), the experience of the one who executes the intervention and the expert knowledge provided by scientific research.

It is worth noting that the idea of practice based on scientific evidence can prove to be a valuable tool with which to introduce changes in education, while simultaneously seeing to the empowerment of practice and practitioners in the process of implementing these changes.

This essay aims to indicate the possibilities but also the limitations associated with the widespread application of evidence-based practice in education. I will strive to reconstruct the premises of this concept from the vantage point of actual practical needs. The analyses conducted here are subordinated to finding the answers to a few questions:

1. What is the essence of this concept?
2. What can be expected from the application of EBP in education?
3. How can EBP be employed as an effective instrument of change?
4. How does this concept relate to other, better-known approaches to professional work?

I have decided that the search for these answers is worth undertaking. Unfortunately, it often happens that in practice, ideas—fundamentally interesting and valuable—become filled in with contents far removed from those attributed to them by their creators. Occasionally, in social practices we use language abounding in labels that actually lack content. It is advisable, then, out of concern for propriety, to do so as rarely as possible.

## WHAT IS EVIDENCE-BASED PRACTICE IN ITS ESSENCE?

Evidence-based practice is definitely something more than just a new current of applied research within social sciences, functioning along with action-research and evaluation research. EBP is, rather, the term given to a new approach to professional work. It refers to a whole range of professions within the sphere of social services. It embraces health care<sup>1</sup> (evidence-based medicine—EBM) (Sackett, Richardson, Rosenber, & Haynes, 1997), policy (evidence-based policy—EBPol) (Mullen, Shlon-sky, Bledsoe, & Bellamy, 2005) and recently education (evidence-based education—EBE) (Colucci-Gray, Das, Gray, Robson, & Spratt, 2013).

The manner in which *evidence-based practice* is defined currently refers to the “medical” approach, initiated at the end of the 20<sup>th</sup> century, to the treatment of the scope and contents attributed to practice based on scientific evidence. It was believed then that evidence-based practice involved the fully conscious, explicit and honest use of currently available empirical data (evidence) when making decisions concerning the treatment of individual patients. Such decisions required the integration of credible evidence from scientific research, clinical experience and patient values (Mullen et al., 2005).

The essence of *evidence-based practice*, not only in medicine, is that the practitioner, considering primarily the benefit of an individual under his care (patient/client/student) and employing expertise emerging from solving practical problems, objectively and effectively seeks empirical evidence to confirm the validity of the solutions adopted for these problems and undertakes interventions justified by the available evidence (Mullen et al., 2005).

When understood in such terms, *evidence-based practice* is perceived as the specific approach toward one’s own professional practice. Its core is the ability to integrate three separate spheres: evidence from scientific research, one’s own experience, constantly reflected upon, and the values and needs of the client. Decisions made by the practitioner are the correlatives of the three aforementioned components (Figure 1).

It should be once again stressed that *evidence-based practice*, understood as the specific approach toward one’s practice, involves much more than just the ability to find scientific “evidence” to confirm the soundness of decisions made by the practitioner<sup>2</sup>. The idea is not only to be able to apply conclusions emerging from conducted scientific research. EBP is, however, not limited to the traditionally conceived competence to combine theory and practice. In this conception, the practitioner does not subsume to the “dictatorship” or primacy of the theory, does not assume that theory is original to practice. The practitioner does not believe that practical activities involve only the ability to employ theory in practice. Practice is not here a training ground where the results of research conducted in university laboratories are tested.

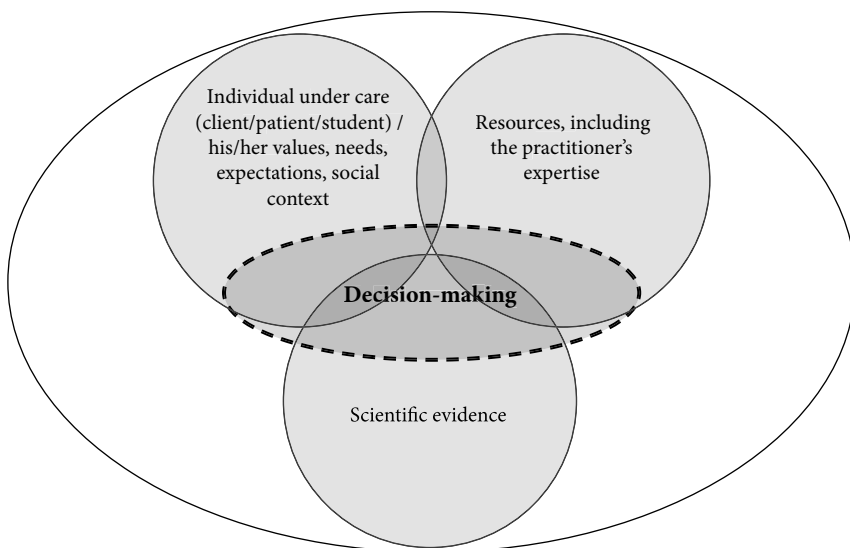


Figure 1. Constituents of evidence-based practice.

As Zammitt and Alvares (2012) argue, “EBP is more than the finding of good evidence; it is a process of infusing good evidence into the helping relationship in a manner that is appropriate to the client’s context and that identifies interventions the client is willing to try” (p. 49).

Specific functions attributed to theory in practical intervention are worth emphasizing at this point. Credible evidence from empirical research can be employed in two ways. In the first case, the practitioner refers to them when planning a course of action, when considering the best solutions that would contribute to effecting a change in the client’s situation. In the second case, evidence from the practitioner’s own research and that of others provides “proof” that the undertaken intervention brought about the expected results.

The second, extremely important component of *evidence-based practice* is the focus on the needs, values, expectations and social context of the receivers of assistance. The practitioner’s activity is not only the “technical” activity of someone who knows *a priori* what is beneficial for his clients. The practitioner’s actions are characterized predominantly by an ethical dimension. That is why, as Wells and Briggs aptly emphasize (2009), in EBP there is room for ethical considerations. When making a decision about intervention, the practitioner takes into account the client’s preferences and needs, his own expertise and scientific evidence. He does so in a manner that is transparent, explicit and understandable for both him and those his action affects. The ethical dimension concerns the practitioner’s aim to seek the truth about what can actually help and also to be ready to reject the belief that one universal method

of action exists that can be applied to all—in other words, to reject the “one method fits all position” (Painter & Scannapieco, 2009, p. 76).

The third component of EBP consists of the practitioner’s professional experience (expertise). It has two important dimensions with respect to the discussed concept. First, it is assumed that the practitioner’s expertise results from continuous lifelong learning. The approach of a teacher who fits into the EBP model is characterized by openness to new knowledge and experiences, constant readiness to learn, searching for situations that create learning opportunities and readiness to reject schemes of action that have proven inadequate for new times. Second, *evidence-based practice* requires a self-reflective attitude. The practitioner is forced to reflect constantly, practically and critically on his activities<sup>3</sup>.

Hopes raised along with a broader implementation of practice based on scientific evidence—also in education—refer to two issues. The first is to find a bridge between three domains: the sphere of educational policy, practical action and the world of scientific research (Mullen et al., 2005). It is assumed that it is possible to integrate the three aforementioned worlds, which are often separated by an abyss. It is believed that political decisions can be based on reliable diagnoses and evidence obtained from scientific research rather than, as unfortunately happens quite often, being subordinated only to the particular, current interests of those in power who strive for electoral success. The EBP movement also promotes the self-reflective and wise activities of practitioners who are treated as free and trustworthy subjects, rather than perceived only as passive executioners of someone else’s will. In addition, it is believed that the empowerment of the practitioner-client relationship is possible. *Evidence-based practice* focuses on the clients’ needs. This requires respecting their values and specific needs as well as accounting for their individual situations—the cultural and economic contexts that define their life environments.

When analyzing quite extensive literature on this subject, one may also conclude that EBP very strongly highlights the possibilities of and necessity to professionalize many social services jobs, which at present are very often undervalued—as they are in our culture. A teacher’s job falls within this category.

#### EVIDENCE-BASED PRACTICE AND EVALUATION

*Evidence-based practice*, as I have already argued, is the specific approach to one’s own professional practice. It requires most of all a research-oriented attitude. The practitioner is ready to study his own practice in its both dimensions. He concentrates—to the same extent—on the results of undertaken intervention and its resultant course. Two questions appear in this context. The first concerns the issue of instruments that can be employed in the process of collecting data about one’s own practice. The other question refers to the stages in the EBP processes, which require the application of research instruments.

Practitioners, as is perfectly natural, are mainly interested in the opportunities created by applied social sciences. Three types are of particular interest and merit attention here. These are:

- » traditional diagnostic research,
- » action research,
- » evaluation research.

What these types of research have in common is that practitioners are frequently both the recipients of their results and researchers directly involved in designing and conducting studies for their own aims.

At this point I wish to direct readers' attention to evaluation research presented in the literature concerning this subject as an integral element of EBP.

In the tradition originating from medical sciences, *evidence-based practice* is conceived as a process in which the processing of empirical data (scientific evidence) is divided into five stages: a) discovery research (knowledge-generating stage through original empirical research, b) evidence summary, concluding (synthesizing the corpus of research knowledge into a single meaningful statement of the state of the science), c) translating to guidelines (*translation* of evidence into practical recommendations), d) implementation, and e) outcome evaluation (Stevens, 2001)<sup>4</sup>. In education, and in other fields, this process is of a slightly different nature. The empowerment of the practitioner is much more emphasized.. According to the model designed by Rubin (1997), *evidence-based practice* is a five-step cyclic process that requires the practitioner to:

1. Formulate a question (for example, "What interventions work best to increase impulse control?").
2. Search for the best evidence (empirical evidence) to answer a question (for example, use available databases, research reports and other resources).
3. Critically appraise the available evidence (for example, consider contextual fit with client, system and the quality of research).
4. Select and implement the best available intervention by integrating the practitioner's expertise and goodness of fit with the client's contextual characteristics (for example, clinical state, client's preferences, and cultural faetón).
5. Monitor (evaluate—the author's addition) client progress (Zammit & Alvares, 2012).

Within the approaches presented earlier, evaluation is always treated as an integral component of the EBP process. Thus the question arises: How to understand evaluation and what types of evaluation can support practitioners who wish to work within the framework of *evidence-based practice*? I am afraid that referring to evaluation as commonly understood and types of evaluation applied in Poland recently<sup>5</sup>, instead of assisting the practitioner, can in fact turn into a serious obstacle to the widespread implementation of EBP. More in-depth knowledge and skills are necessary to take the greatest advantage of the possibilities offered by evaluation within evidence-based practice.

The starting point for the understanding of the essence and function of evaluation in assisting practical action is to assume that evaluation is both a type of applied social research and a reflection upon the value of undertaken intervention. The subject of any evaluation research is always the value assigned to the studied activities. The problem is that very rarely can the evaluator formulate value judgments. His task is to communicate credible evidence in such a manner that induces (or actually forces) the receiver to reflect upon the value of the intervention per se and its outcomes.

Evaluation, as presented above, is an integral part of EBP. As a type of applied social research, it appears at the final stage of the *evidence-based practice* cycle. It is necessary, however, to consider what type of evaluation is applicable when EBP is implemented in education.

The application of various types of *self-evaluation* yields good results. The teacher “scrutinizes” his own activity, trying to address the issues concerning the value of adopted solutions and of the effects brought about by his activities. That is why it is important to plan and design the final stage of EBP carefully beforehand. Ideas governed by “common sense” and observation of others may lead to grave disappointment.

When planning and designing evaluation consistent with the EBP framework, a number of decisions must be made, referring to the following issues:

1. Defining precisely the aims, tasks and the subject of self-evaluation.
2. Formulating key questions.
3. Defining evaluation criteria.
4. Selecting the type, kind and strategy of the research (e.g., decisions: formative or conclusive self-evaluation? Monitoring or clarifying? Within the strategy of “case study,” survey or experimental research? Etc.)
5. Selecting methods and techniques of data collection and their analysis.
6. Constructing research tools.
7. Selecting research sample.
8. Communicating and disseminating the results and their exploitation.

Omitting the stage of planning and designing, believing that evaluation equals judging, beginning the process of evaluation with searching for tools to collect data, and assuming that only measurement-based evaluations are credible and objective are just a few examples of misconducts that drastically limit the application of evaluation within the EBP framework.

At the end of this section, the difference between evaluation and EBP needs to be explained and clarified. Despite many similarities I have already mentioned, there are also some fundamental differences. The first group results from the fact that EBP is a term signifying the specific approach to professional practice. The most important issue in this approach is the integration of three components crucial to the quality of work and its outcomes—empirical data from scientific research (scientific evidence), constantly developed expertise of the practitioner, and in-depth practical knowledge concerning the clients and their social contexts. Evaluation, however, is—first and foremost—a type of social research.

As McMurray (2004) stresses, research and *evidence-based practice* have different purposes, different end-points and different outcomes. EBP aims to search and appraise the best available evidence, whereas research findings are only part of this process. A research study normally generates outcomes specified in the research project (before beginning the study, it is necessary to define its scope and subject precisely), whereas EBP seeks to change practice or at least find evidence supporting decision-making. A researcher is less concerned with existing evidence, while EBP relies on a variety of evidence, including that arising from the client's individual needs and preferences.

Table 1  
*Differences between EBP and evaluation research*

	EBP	EVALUATION RESEARCH
<b>Aims</b>	<i>Seeking the best available evidence allowing for projecting a change and documenting its outcomes</i>	<i>Providing credible data as the basis for judging the value of intervention and its outcomes</i>
<b>Process</b>	<i>Multi-stage, cyclic intervention subordinated solely to practical aims</i>	<i>Process subordinated to the procedures valid in applied social sciences. Respecting rigid methodological standards when designing, collecting data, their analysis, interpretation and dissemination.</i>
<b>Evidence</b>	<i>Existing quantitative and qualitative evidence</i>	<i>Qualitative and quantitative data gathered during the study</i>
<b>Outcomes</b>	<i>Effecting a planned change or making a decision concerning intervention to effect a change</i>	<i>Practical and critical reflection upon the value of intervention and its outcomes, including different axiological perspectives and expectations of the stakeholders</i>
<b>Executors</b>	<i>Practitioners performing the intervention</i>	<i>Practitioners performing the intervention (self-evaluation); external entities—external evaluation</i>
<b>Necessary knowledge and competences</b>	<i>In-depth knowledge of the theory and practice of intervention being the subject of EBP</i>	<i>In-depth social knowledge and competences, knowledge of research methodology, ability to conduct scientific research</i>

*Note.* The author's research.

Evaluation is a specific type of social research, situated somewhere between classic experimental research and EBP. Thus, the differences here are more subtle, although evident and important from the point of view of practice. They are presented in Table 1.

It must be remembered, however, that despite the aforementioned differences, evaluation is an integral part of EBP. It appears, with different weight and in various forms, at each stage constituting the cycle of evidence-based practice.



## DATA (EVIDENCE) IDENTIFICATION

The practitioner who implements EBP into his professional activities needs to devote much time and energy to working on data. Empirical data (scientific evidence) serve the practitioner in two ways. In the initial stages of EBP he seeks available, possibly the best evidence allowing him to make a decision on what intervention would effect a beneficial change for his clients. In the final stage of EBP, he needs evidence to judge objectively the actual value of the effected change for the clients, their environment, entities financing his activities and the system in which he functions. It is justifiable, then, both from the theoretical and practical points of view, to attempt to answer a few questions:

1. What are the sources of evidence?
2. How to select evidence that is available and credible?
3. What is the usefulness of such evidence?
4. How to “work” with evidence? What principles of “performance culture” with respect to evidence are valid within the framework of EBP?
5. How to interpret external evidence from scientific research and how to “translate” it into the language of practice?
6. How to generate and disseminate evidence from one’s own evaluation research?
7. How to use available evidence in practice in view of the client’s benefit and one’s own professional development?

Providing an exhaustive answer to each of these questions is beyond the scope of this brief article. It is possible, however, to attempt to indicate possible paths to follow to arrive at answers satisfactory to the reader. Some suggestions, and more frequently clues, may be found when analyzing the current movements within EBP.

## SOURCES OF EVIDENCE AND THEIR METHODOLOGICAL STATUS

The question concerning the source of evidence only appears easy to answer, because each movement existing at present within EBP represents different philosophical perspectives and (frequently conflicting) academic traditions surfacing in divergent discourses of modern social sciences and medical sciences. Each of these currents offers a different array of evidence, treated within its framework as “best” and reliable (Mitchell, 2011).

Within the traditional EBP, originating from medicine, the model termed empirically supported treatment, or EST, was in operation until recently (Humphries, 2003). In this model, the only credible evidence is provided by studies subordinated to the logic of the experiment. The practitioner in this case can trust only the results of measurements of the intervention outcomes in the form of figures gathered through standardized tools (e.g., tests).

EST exemplifies the situation in which *evidence-based practice* embraces a version of positivism that assumes that the social sciences essentially share methodolog-

ical principles with the natural sciences. The adopted manner of conceiving science serves here as a blueprint for social sciences.

Thus:

1. What is acceptable as a scientific method in the natural sciences is the only rational source of knowledge.
2. These methods may be universally applied, irrespective of the scientific discipline and the studied sphere of reality.
3. Measurements, quantitative and experimental methods, and statistical operations on variables are an ideal basis for scientific knowledge and its only and sufficient source.
4. Research can and should describe objective reality, independent of the subject of cognition.
5. Scientific knowledge consists of universal laws.
6. Research must be objective. Subjective biases may be overcome when the researcher assumes axiological neutrality and consents to the vision of "value free" science.

Within *integrative approaches* (Humphries, 2003) one can find evidence that goes beyond the limitations of the previous model. The EST model, as its critics claim, provided answers to only two questions: "What works?" and "What works best?" However, the key questions for the practitioner are quite different. The practitioner would like to know "Where does it work?" "In whom?" "When, in what circumstances?" and "What to do?"

Studies conducted within the "integrative" movement particularly stress the context in which intervention takes place, the client's characteristics and specific needs, his social context, the client-practitioner relationship, and relationships between the practitioner and various levels of the system within which he operates. The researcher is not here a prisoner of the neo-positivist vision of science and "technical rationality" that reduces the human being to what is measurable and possible to generalize. This is important because the practitioner values such evidence, which will help him find solutions he can apply in a specific place and time.

The third current within EBP stresses the importance of evidence necessary for designing the programs (*common factors and characteristics of effective programs*) (Humphries, 2003). The key importance is assigned here to the effectiveness of the program or service and the factors determining the success of a given program in a given place and time. Reports from evaluation research are the major sources of such evidence (Chen & Rossi, 1983; Stufflebeam, 2001)<sup>6</sup>.

The conceptions constituting evidence-based practice reflect profound changes in the methodology of modern social research. A growing awareness of the consequences of adopting specific ontological, epistemological, anthropological and methodological assumptions with respect to the obtained outcomes results in a thorough internal differentiation within EBP. Recently, the applicability of evidence generated within the paradigm imposing the research method of the natural sciences on the social sciences has been questioned. Positivism and empiricism, as well as the

knowledge of man and society created within the latter's framework, are not the only source of empirical "evidence" used in EBP. At present, studies based on humanist and interpretative paradigms generate more interest and appreciation. Such paradigms are particularly evident in modern action research (Červinková & Gołębiak, 2010) and participatory-oriented research. Analyzing the applicability of participatory research in social work, Humphries (2003) concludes that such approaches should be concerned with "putting the power in the hands of those often excluded from influence in social processes" and that the underlying principle in such research is "the emphasis on research participants and researchers attempting to collaborate as equals, through sharing power in decision-making and by drawing on each other's knowledge and insights" (p. 87). I believe that the quoted observations may be safely extended to embrace also education.

A broad range of sources that may be treated as "evidence" is a great opportunity to implement EBP in education. In evidence-based educational practice, credible empirical data, among other considerations, are necessary:

- » When making a decision about therapeutic or prophylactic intervention.
- » When the practitioner desires to explain the reasons for the success or failure of the undertaken intervention.
- » When the researcher seeks evidence that the intervention yielded expected outcomes.

Such evidence may be both quantitative and qualitative and may be obtained from studies conducted within many competing paradigms of modern social research. However, the decision as to which evidence may be trusted is not an easy one. Evidence from the following types of research may be elusive and misleading: experimental and poll research, case studies, ethnographic and phenomenological research, grounded theory, evaluation research and action research. One needs expertise and knowledge of scientific methodology to be up to this task. An effective methodological measure that limits the risk of using evidence of low value is the triangulation of theories, researchers and sources.

The discussion in current worldwide literature indicates that generating credible evidence requires:

1. Confirming the relationship between the documented intervention and the observed outcomes.
2. Time sequence: intervention always precedes the observed outcomes.
3. Elimination of probable alternative explanations of the obtained outcomes (Wells & Briggs, 2009).

Simultaneously, commentators stress weaknesses of experimental models. These weaknesses stem from the limited possibility of transferring laboratory results into natural life conditions, as well as unjustified generalizations of research results to embrace general populations when research was conducted on small samples.

Generally, many issues of key importance for EBP still require clarification. Their list is quite extensive, and they may be represented by questions concerning:

- » Evidence confirming the effectiveness of intervention.

- » Influences of authorities.
- » Hierarchy conflicts.
- » Definition of evidence.
- » Limitations occurring when empirical data is acknowledged as scientific evidence (stemming from a variety of practical activities, the phenomenon of evidence “inflation,” values of judgments, etc).
- » Possibility of applying the outcomes of research conducted on groups in individual situations (conflict between nomothetic and idiographic knowledge).
- » The manner of interpreting the term “effectiveness” and associated moral dilemmas.
- » Dissemination, adaptation and application of data recognised as scientific evidence.

Each of the enumerated issues deserves and requires thorough consideration, research and discussion. In the case of education, these issues are of a specific nature. When trying to determine the essence of evidence-based practice in education in Poland, this effort should be undertaken—the more so because attempts to transfer the solutions worked out in medicine, psychology or social work are of limited applicability in education, whose specificity and domestic cultural, social and historical contexts need to be accounted for.

#### FINAL REMARKS

The concept of evidence-based education (EBE) is “the youngest offspring” in the family of *evidence-based practice*. It draws on the experience gathered in the last 15 years in medicine (EBM), social work (EBSW) and policy-making (EBPol). These domains have various elements in common. They create a movement that promotes an interesting and, so far as one can judge, new and valuable approach to professionalism in jobs which contribute to the well-being of another person. Two important features characterize this movement. The first is an attempt to work out adequate relationships between theory and practice. Representatives of this movement do not recognize the primacy of theory in practical activity. They are also not inclined to marginalize theory and the results of research conducted in many different disciplines in the sciences of man. Their ambition, as I have already written, is to balance the spheres of scientific research, expertise (the practitioner’s personal practical experience) and needs (factual rather than imagined) of the client(s). Hence, with reference to education, it can be stated that *evidence-based practice* is represented by the teacher who, considering primarily the benefit of the student and using his professional expertise, objectively and effectively seeks evidence confirming the validity of solutions adopted for specific problems and undertakes interventions justified by possessed evidence. The second feature of EBP is the nature of the teacher-student relationship. It is not sufficient to state that this relationship stresses only the student’s empowerment. EBP opens room to promote a relationship based on a dialogue. Both the teacher and the student become subjects of educational activities. This relates

to the vision of education that promotes working *with* people, and not—vanity-driven—working *on* people who need to be “customized” for dominating ideologies.

Potentially, *evidence-based practice* opens very interesting and promising perspectives for education. It can be a highly useful and valuable instrument in the hands of teachers and representatives of education administration at various levels—the instrument with which to change what needs to be changed in education. EBP generates hopes of this kind because it creates a platform for collaboration involving many other concepts of professional action, already well rooted in education. Evaluation research and action research can serve as examples. In addition, it must be mentioned that this concept is characterized by universalism. It creates a platform within which one can search for the practical meaning of such categories as good school, learning school, student’s benefit, teacher’s empowerment, etc.

It must be remembered, however, that many challenges and obstacles will not be easy to overcome in implementing this model on a wider scale. The list of such problems is extensive. Context is the first obstacle. The concept of evidence-based education faces a disadvantageous social and cultural context. Neoliberal ideology, also influential in Poland, in which a human being is perceived as a consumer, tries to privatize social services and make them more “market like.” That and the progressive dehumanization of social life are just two factors that can promote caricature like (or rump) EBP variations.

Another potential barrier is the very nature of this approach. This is the proposition for the best professionals. It is to be hoped that EBP in education will create space to promote a “new professionalism” for teachers—a professionalism that forces them, as Gołębnik and Zamorska (2014) argue, “to go beyond missionary work and instrumentalism”.

Overcoming this barrier requires, however, a dramatic change in educating teachers and candidates for this profession. It will be difficult to overcome thought models deeply rooted in our consciousness that conceive the teacher as a “specialized technician” in school bureaucracy.

Scientific evidence is of key importance in EBP, irrespective of its variation—evidence that becomes one of the premises for the professional worker’s decisions on the direction and nature of intervention. Three types of problems are associated with evidence, as I have already mentioned.

The first group consists of questions about the status of evidence. The practitioner needs to decide which evidence to use. The question is: What criteria should govern his judgment concerning the usefulness of evidence in a specific action? To what extent is the value of evidence associated with its origin (source domain) and type (quantitative or qualitative)? How to deal with the criterion of accuracy and credibility when assessing the value of evidence?

I have the impression that we currently deal with a paradoxical situation. It cannot be said that evidence is scarce. On the contrary, there is a lot of evidence, and it is commonly accessible. Unfortunately, this is only a sham and valuable, credible sources of evidence are very difficult to find. They disappear in the mass of informa-

tion buzz, which does not allow one to find what is needed quickly. This situation is aggravated by the atrophy of scientific criticism in humanities. Criticism no longer provides tools with which to differentiate what deserves to be termed scientific evidence from simple information more often addressed to the receiver's emotions than to reason. At present, often beautifully "packed" and attractively presented data, despite their scant scientific value, aspire to the status of scientific evidence and are treated as such by many.

The second issue is how to work with data (Ronka, Geier, & Marciniak, 2010). The ability to work with data, their analysis, critical interpretation, and application when designing and performing intervention are among the challenges that teacher education systems should consider.

The third, and probably not the last, issue to address is the creation of a commonly accessible system of aligned databases for professional workers interested in the concept of evidence-based education. Such attempts are already being made, the Moja Polis<sup>7</sup> portal being one of examples. Unfortunately, no attempt to create such a system focused on the system of education in Poland has been undertaken thus far. Probably, as Paluchowski (2010) aptly noticed, this should be done by a special institution that follows the experiences of, inter alia, the Buros Institute of Mental Measurements.

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#### PRAKTYKA EDUKACYJNA OPARTA NA DOWODACH NAUKOWYCH – ZAŁOŻENIA, DYLEMATY, PERSPEKTYWY

**ABSTRAKT:** Celem artykułu jest wskazanie na możliwości, ale i na ograniczenia, jakie wiążą się z upowszechnianiem praktyki, opartej na dowodach naukowych w edukacji. Podjęto w nim próbę rekonstrukcji założeń tej koncepcji z punktu widzenia aktualnych potrzeb praktyki. Artykuł skupia się na kilku kwestiach, istotnych dla implementacji *evidence-based practice* (EBP) w edukacji. Pierwsza z nich odnosi się do istoty tej koncepcji oraz jej związków z innymi instrumentami, wykorzystywanymi w pracy profesjonalnej – ewaluacją oraz badaniami w działaniu. Drugą z podejmowanych w tekście kwestii jest problem identyfikacji danych, którym można nadać status dowodów naukowych. Artykuł kończy dyskusja na temat szans, jakie dla rozwoju profesjonalnego nauczycieli tworzy EBP.

**SŁOWA KLUCZOWE:** *Evidence-based practice*, EBP, edukacja oparta na dowodach naukowych, EBE, ewaluacja, profesjonalizm.



1. Medicine functions as a “source domain” for *evidence-based practice*. Many significant publications were written based on the medical framework, including *Evidence-based medicine: how to practice and teach EBM*.
2. Unfortunately, such an understanding of EBP is very often found in practice. The essence of this concept as commonly understood is limited to the documentation of the results of undertaken activities. EBP is supposed to provide credible evidence that interventions brought about the expected results.
3. Reflection is treated as an inseparable attribute of a modern professional worker. It needs to be stressed, however, that EBP accentuates specific types of reflection. It rejects “technical” reflection in which the practitioner’s reflection is directed only at seeking effective means to achieve aims that are imposed *a priori*. The criterion for evaluating undertaken intervention is not merely its effectiveness or efficiency. The practitioner should, rather, search for wise action. And this requires “practical” reflection that embraces not only reflection upon the means necessary to achieve the aims, but also reflection upon the values of these aims and action results from the perspective of various axiological orders (cf. Mizerek, 1999).
4. This refers to the approach termed *Star Model* designed within *evidence-based medicine* (EBM).
5. Recently in Poland, the type of evaluation that MacDonald termed bureaucratic evaluation has been “blooming.” It is characterized by a non-reflective acceptance of values professed by the commissioners of evaluation research (including politicians). The evaluator assumes the role of a judge who is supposed to answer questions, such as: Was the program good? To what extent were the targeted aims achieved? Here evaluation is supposed to function as a fig leaf; it is to placate taxpayers’ conscience, whose money is used to pay the cost of various social interventions. Such evaluation does not generate knowledge to assist the intervention but rather provides grades or (much rarer) value judgments. It is easy to prove that the conception of evaluation as highlighting its “grading” functions is of little use from the point of view of ideas at the core of EBP.
6. Program evaluation research is the most dynamically developing field of evaluation worldwide. Projects conducted within the CIPP model or the movement termed *theory-driven evaluation* can be particularly useful. Unfortunately, evaluation research performed in Poland, rooted mostly in an archaic, highly bureaucratic, technocratic and econometric methodological approach, rarely generate knowledge that would be useful in practice. Reports are “intellectually empty”; they do not provide any fresh insight, apart from “evidence” for the success or failure of a given program. Comprehending them requires much intellectual effort. One needs to read between the lines to find information about the factors that determined the success or failure of a specific social intervention.
7. This portal (<https://www.mojapolis.pl>) collects and disseminates information concerning the work of administration and local governments in Poland.