



### What is evidence in evidence based programming (EBP)? Some concepts and common pitfalls\*

We often use terms such as “evidence based programming” or “evidence based practice”. At organizational level, it is important to have some common understanding on what it actually means, especially with respect to our programming. There are many definitions available and they all suggest EBP as **a process of using evidence in decision making**. EBP essentially advocates a more rational, rigorous and systematic approach of utilizing evidence. This note intended to explain **the process of EBP and the meaning of evidence**.

#### The process of EBP

EBP can be conceptualized as a five step process. The steps in the process is very intuitive - it starts by asking a question, then leading to acquiring existing evidence on that question, appraising the quality of acquired evidence, applying the suggestion from the evidence and analysing the outcome of that application. However, there are usually lack of common understanding on “what to ask”, “how to acquire evidence” and “what is quality of evidence”.

Five A's in EBP



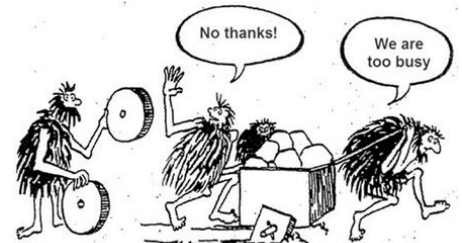
**Ask** – we need to be careful in what question to ask in EBP. Questions that are too specific to a context are not considered EBP. For example, collecting data on enrolment rate in a village to decide whether the village needs a school is not EBP. Gathering such information is part of programming. On other extreme, questions that are too broad may not be feasible for EBP. For example, asking “what are the best practices to reduce school dropout” is too broad to acquire and appraise evidence. An example of question suited for EBP can be – “can child friendly space reduce school dropout for girls”.

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“Off hand, I'd say you're suffering from an arrow through your head, but just to play it safe, I'm ordering a bunch of tests.”

**Acquire** – at this step we look for existing evidence on the question asked. This may include our experiential knowledge, but needs to do systematic search of exiting research. It is important to acknowledge that we are unlikely to be the first one facing a particular problem or considering a solution.



**Appraise** – appraising the quality of evidence is the most important step of EBP. Validity of the existing evidence will determine the likelihood of success of the solution we attempt. In the context of programmatic intervention, the evidence need to have the ability to attribute the differences in outcomes by the intervention.

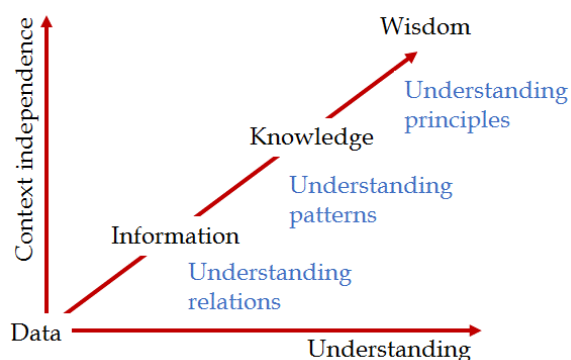
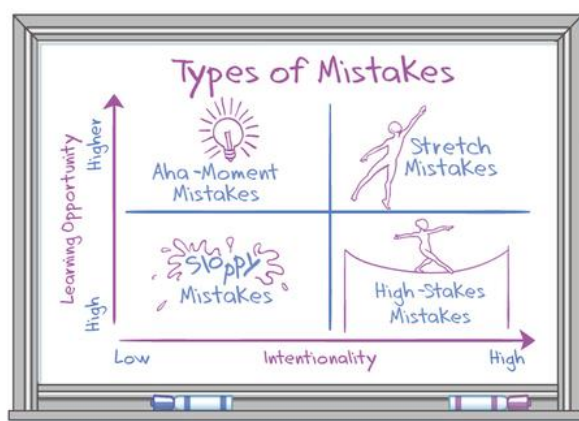
**Apply** - this is the field action part of EBP where an idea or intervention is applied in the particular context. When applying a solution, especially if the evidence behind the solution is not solid, the final step of EBP (analysis) should be taken into consideration during application.

**Analyse** - is systematic assessment of whether the applied solution is making impacts on the intended outcomes or not. Analysis has to be able to attribute the differences in outcome (e.g. school dropout rate) to the solution applied (e.g. safe space).



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## Ten pitfalls/mistakes that we should avoid



1. **Mistakes do not always add up to our learning** – although learning from mistakes is a means of knowledge generation, we should not brand all mistakes as learning. Things that we should know before we start an intervention and things we expect to learn are usually different. The level of intentionality is the biggest driver of the quality of learning. As it is often said, “if mistake is the most important way to learn, I should be a genius by now”.
2. **Data and knowledge are not the same thing** – data is the foundation of knowledge, but only if it helps to understand relations and patterns. The same way, taking action based on data is not evidence based programming. Data describes facts, and we should always know our necessary facts.
3. **Monitoring changes from baseline to endline is not an evaluation** – this is one of the most common mistakes done by most agencies in the development industry. Observing the changes from baseline to endline usually says nothing about the changes made by our interventions.
4. **Correlations does not imply causality** – one may have a valid observation that food transfer recipients are poorer than the business training participants, but it does not mean the business training made the participants richer and/or the food transfer made the beneficiaries poorer.
5. **Operations research is not a quick and dirty exercise** – we often assume that an operations research is a quick (and dirty) exercise producing rapid results. Operations research is actually something that covers everything from needs assessment, action research to impact evaluations.
6. **A few case studies with interesting quotes is not qualitative research** – it is fairly common to find mention of a research method that combine quantitative and qualitative approaches. However, most of these “mixed method research” generally include a few case studies or (focused) group discussions. This is not qualitative research. Like quantitative analysis, qualitative method involves breaking down the data and observing relations and patterns objectively. The same qualitative data analysed by different individuals should come up with similar findings.
7. **Data mining is not research** – we often try to do research to find patterns from data after the data is collected, which is called data mining. This can be a dangerous approach to learning as we may find spurious relations from the data. We should not collect data with a view of finding some use for it later. The likelihood of the data being useful for anything is very low.
8. **Evaluation does not come at the middle of end of the project** – evaluation needs to start before the project or intervention starts. If the evaluation design is not determined at the beginning, we are highly likely to end up with an evaluation that generate any knowledge.
9. **Evaluation that use only beneficiary data are usually very weak** – for most evaluations, we collect data from the beneficiaries through baseline and endline surveys. Without having any non-beneficiary group to compare this “pre-to-post change”, such assessment is usually very weak (if not useless).
10. **Surveying different beneficiaries at baseline and endline is usually not the best use of resources** – in many evaluations we collect data from different individuals or households at baseline and endline. The biggest challenge with such “repeated cross-sectional” survey is – we cannot know whether the changes are due to differences in sampling or “real changes”. **Using panel data and comparison group can improve the quality of most evaluation many fold.** Importantly, this may not require additional resources for data collection. Within given budget, we are better-off with a smaller sample of panel data with comparison group rather than a bigger sample of beneficiaries only.