# U-FE AS STRATEGIC FRAMEWORK FOR SCALING-UP THE ADOPTION OF ICTS BY SCHOOLS IN COLOMBIA.

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## DECI-2 Case study

# U-FE as strategic framework for scaling-up the adoption of ICTs by schools in Colombia

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March, 2018

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# Introduction

EAFIT - a private university based in Medellin (Colombia) – has a research unit called "Línea I+D en Informática Educativa" (I+D unit) that has conducted applied research on the adoption of Information and Communication Technologies (ICTs) in school education for more than 30 years. Over this period of time, EAFIT developed UBiTAG, a model through which it has reached around 100,000 students, 18,000 teachers and more than 1,200 schools (EAFIT, 2017). As part of this line of research, in 2015, EAFIT launched an IDRC-funded project called "Forjando Futuros para la Educación en Colombia" (FFEC) – Unlocking the Future of Education in Colombia – which aims at identifying good practices for the adoption of ICTs in school environments and at developing models for transferring and scaling-up such practices.

The I+D unit has a very strong team of evaluators with several years of experience collecting and analyzing data and that has helped develop an advanced multivariate model. The model tracks progress in the use and appropriation of ICTs by students, teachers and school managers. In 2016, one of EAFIT's lead researchers learned about Utilization-Focused Evaluation (U-FE) at an IDRC-hosted meeting and became interested in getting support from DECI-2 in order to improve her team's evaluation practice. After some conversations, the DECI-2 principal investigators and the researchers of the I+D unit agreed to work together. This case study provides a summary of the evaluation experience and of the learning outcomes.

# Identifying Collaboration Scenarios

In September 2016 a DECI-2 evaluation mentor met with EAFIT's I+D unit in Medellin to explore potential collaboration scenarios. The mentor gave a presentation during which he provided an overview of the DECI-2 project, explained the main U-FE and Research Communication (ResCom) principles, and shared previous mentorship experiences with other projects. This presentation was followed by a 2-hour workshop in which he invited the I+D unit to reflect on different evaluation and communication issues, a review of the key project stakeholders, the definition of evaluation purposes and uses, target audiences and communication objectives. The DECI-2 mentor also conducted one-on-one interviews with different stakeholders to better understand EAFIT's projects, and the range of existing appreciations about evaluation. Through these interactions, the mentor made the following observations:

- Although the evaluation team of the I+D unit had not explicitly defined or conceptualized intended uses for the evaluation findings, it was clear that up to that point, there were two implicit uses: (i) generating knowledge to enhance the research and (ii) accountability in order to show compliance with legal contracts;
- There was no clear differentiation between the research agenda and the evaluation efforts. In other words, the evaluation topics were driven by research interests [by the evaluation team] and there were

no explicit evaluation questions. As a result, the evaluation team was collecting high volumes of data, regardless of their associated cost and usability;

♦ EAFIT's evaluation team had not identified any primary evaluation users other than themselves as academic researchers. This explained the very limited buy-in that the evaluation findings had by project stakeholders outside the I+D unit. During the workshop, the DECI-2 mentor jokingly told them "you've just been talking to yourselves all these years", to which most of them agreed;

♦ The mentor interviewed researchers and field workers who were involved in the project. All the interviewees perceived the data coming from the evaluation team as highly reliable. One of them described such data as "very consistent with what one observes at the field level". This comment was a strong piece of evidence about the rigor and credibility of the work done by the evaluation team.

♦ EAFIT's context was unique and very different from other contexts in which DECI-2 had provided support in the sense that the project already involved very experienced evaluators and communication professionals. From this point of view, the challenge to make significant contributions to their evaluation and communication practice was unique and very demanding.

Based on these observations and on the fact that the evaluation efforts had been going on for a significant amount of time, what made most sense in terms of U-FE training was to focus on the steps that seemed most relevant to add value to EAFIT's evaluation team, and not necessarily on trying to cover all the U-FE steps. From this perspective, it was agreed that the DECI-2 mentorship would focus on the following steps of the U-FE process:

✓ Identification of Primary Intended Users (PIUs).
✓ Selection of intended purposes and uses of the evaluation.
✓ Formulation of key evaluation questions.
✓ Simulation of findings use.
✓ Facilitating the utilization of findings.


An additional element that seemed of interest for DECI-2 was that, to a certain degree, EAFIT's I+D research unit had been able to integrate evaluation and communication practice. However, such integration rather than being based on a clearly defined communication strategy, seemed to be primarily guided by emergent needs, such as meeting presentations, briefings to Government officials, press releases, etc. DECI-2 offered a Research Communication mentorship that would focus on helping the communication team be more strategic at communicating research findings to key audiences – especially policy-makers and funders. The proposed scope of the ResCom mentorship would mainly focus on the following elements:

♦ Revision of current communication plans (which were project-based).
♦ Definition of key communication purposes and objectives for the different audiences.
♦ Definition of how such purposes and objectives could become better integrated with evaluation efforts.

# The U-FE Experience

EAFIT appointed Carolina as the evaluator. Carolina was a researcher who had been part of the evaluation team at EAFIT. She had experience designing and implementing evaluation systems for previous projects, and had coordinated data collection efforts for a number of years. Carolina and the DECI-2 mentor had a face-to-face meeting in November, 2016. This meeting helped review key concepts of the U-FE approach and agree on how to proceed in terms of scope and next steps. The mentor and the evaluator agreed that the DECI-2 mentorship would focus on Steps 1, 3, 5 and 8 of the U-FE process, meaning that its scope was to help re-design the evaluation system. Through the mentorship, EAFIT also wanted to receive hands-on training in U-FE, hoping that it would allow them to enrich their evaluation practice. Therefore, special attention was given to process documentation. EAFIT decided to follow the U-FE approach to evaluate two components of the FFEC project that come from EAFIT's UBiTAG Model: the *Tutors' Network* and the *Master Plan for the Use of ICTs*. Within this model, the *Tutors' Network* sought to assemble a group of change agents (i.e. the tutors), whose main role was to initiate the innovation process so that schools would adopt and use of ICTs as part of their learning environments, as well as providing ongoing support through the implementation phase. The *Master Plan for the Use of ICTs* was a planning tool that each school used for programming strategic activities that needed to be undertaken in order to accomplish the specific objectives based on the shared vision of the school's stakeholders.

## *Assessing readiness & situational analysis*

EAFIT's research unit was highly receptive to the U-FE approach and the project managers were very engaged and supportive from the beginning. In fact, they were the ones who approached the DECI-2 principal investigators because they were interested in "test driving" U-FE. Since EAFIT researchers had been leading all their evaluation efforts up to that point, the main issue around *readiness* had to do with determining whether the I+D research unit was willing to share the evaluation agenda with other stakeholders or not. This decision could imply developing key evaluation questions – with the understanding that they could be unrelated to their own research objectives or interests. A second issue was the evaluator's heavy work load and her limited availability for leading the U-FE process. The evaluator discussed both issues with the managers of the research unit and resolved them successfully. Additionally, the project managers allowed the evaluator enough time to work on the U-FE process and encouraged her to work with PIUs from different stakeholder groups. They also committed to respecting the primary users perspectives on what would be evaluated, even if they might not be aligned with their own research interests. These decisions were important steps in legitimizing the U-FE process.

Through her situational analysis, the evaluator identified factors that were favorable to the U-FE process as well as barriers. The main enabling factors were:

♦ The evaluation team as well as the project managers were keen to experiment with U-FE as a new evaluation approach.

♦ The people who were invited to be PIUs accepted the challenge and were willing to remain committed throughout the process.

In terms of barriers, the evaluator made the following observations:

➢ There was significant ambiguity among the PIUs with regards to the previous evaluation model of the project, its data collection instruments, and the [implied] uses. In evaluator's own words, *"I became aware that the PIUs required a lot of guidance on basic evaluation concepts, such as formulating questions and generating hypotheses. From my perspective, I saw this as a limiting factor because it increased my work load as evaluator."*

➢ As the U-FE process started, the PIUs were assigned tasks that involved traveling to other cities in order to support a different project. This meant that they were less available to engage in the U-FE process and the group ended up losing one of the PIUs after the formulation of the KEQs.

➢ A more significant barrier that related to both readiness and the evaluator's situational analysis was the fact that evaluation was regarded as a task exclusively done by researchers. Given that the PIUs were field workers (i.e. tutors and implementers), they considered themselves as not having a high-enough profile for conducting evaluation. This perspective made them skeptical about the actual level of support that the evaluation process would obtain from researchers and managers. In order to overcome this barrier, the evaluator consciously worked on building up their confidence throughout the process. For instance, she produced promotional material to motivate them and to highlight the importance of their role as PIUs (see Figure 1).

*Figure 1: Sample of communication material the evaluator used to motivate PIUs*



"I am a primary user who is committed with the evaluation process."

## Selecting and engaging primary intended users

The evaluator identified two types of potential PIUs: those involved in strategic planning and those involved in program implementation. This differentiation was based on their roles as members of the team that is responsible for implementing the strategy of the *Tutors' Network* of the FFEC project and on the different perspectives that they could bring to the conversation. Their roles and possible interests in the evaluation findings are described in the Table 1.

*Table 1: Potential primary users and their roles in the Tutor's Network*

| User type | Strategic users | Operational users |
|---|---|---|
| Interest in the use of evaluation findings: | Enhance strategy **conceptualization** and **design**. | Improve strategy **implementation** and *in situ* **operations**. |
| User profile: | Divisional advisor, Senior researcher | Divisional manager, Junior researcher |

Source: Evaluation report (Rodas, 2017).

These potential PIUs represented three different stakeholder groups:

♦ Operations group (in charge of program implementation);
♦ Research-to-operations liaison group (strategic planning); and
♦ Research group.

The evaluator invited representatives from each of these groups to be PIUs – four people in total. Although they all accepted the invitation to participate in the U-FE process, the senior researcher who was invited was unable to attend the kick-off meeting. Due to her limited involvement in the project, the other three primary users did not regard her as a primary user of the evaluation, so it was decided not to engage her and to proceed with a user group of only three people who were involved in fieldwork. As part of the initial conversations, the PIUs expressed their excitement about being part of the process, but they also voiced two concerns. One was their lack of evaluation knowledge and experience. The second one was that they feared that the project managers would not accept their participation in defining the evaluation agenda and that it would never be implemented. These two concerns could be related to the fact that up to that point, evaluation had been formally accepted as an activity restricted to "expert" researchers and it had previously only responded to their interests. However, the evaluator successfully addressed these concerns by endorsing the PIUs' decisions about the evaluation, which helped build their confidence in the process. A key decision worth mentioning was the narrowing down of the evaluation scope. Although the project managers had suggested that the U-FE process should focus on the *Tutors' Network* and the *Master Plan for the Use of ICTs*, the PIUs thought this scope was too broad. Therefore, they decided to focus only on the *Tutor's Network*, as they thought it was a more critical component. This particular decision illustrated the importance of active listening as part of the evaluator's role and as a means of empowering PIUs to gain ownership over the evaluation agenda.

## Uses and Key Evaluation Questions

The evaluator and the PUIs met three times in order to define the intended uses and to formulate the KEQs. There were several rounds of revisions between meetings, which underlines the iterative nature of this task. As the PIUs defined the intended uses and formulated the KEQs, the evaluator kept the DECI mentor informed and sought his advice. In most cases, the mentor suggested minor modifications and provided tips on how to engage the PIUs.

These inputs, while minimal, were timely and contributed to building the evaluator's confidence on how to facilitate the process.

The *Tutor's Network* had been operational for five years and there was a need for data and information that could support continuous improvement of the program design and implementation strategy. The PIUs also thought that it would be important to generate knowledge on what works and doesn't work regarding the effectiveness of the tutor's role. From this perspective, the PIUs identified four intended uses:

1. **Reviewing and identifying the most adequate tutoring modalities to support ICT use in schools:** The program had been using different modalities. For instance, sometimes one tutor was assigned to three schools or sometimes to only one school. In other cases, a team of tutors was assigned to one or more schools. The modality was selected based on the context and on agreed conditions within each school, but the selection criteria were not always clear. The PIUs thought that the evaluation findings could be used to formalize the decision-making process.

2. **Measuring success of the *Tutor's Network* strategy:** The *Tutors' Network* had been recognized as a key success factor within the UBiTAG model. However, the PIUs felt that the tutor's model could be tweaked in order to make it more effective, so they wanted to experiment with it. They realized that as part of the experimentation, they also needed a way of measuring success so that they would have an objective basis from which to compare results.

3. **Describing the skills' profile that tutors should have in order to generate added value:** The PIUs identified the need for describing the desired profile of a tutor as an effective change agent and, in turn, as a strategic element of the program.

4. **Finding an effective way of monitoring tutors' performance:** Prior to the U-FE process, EAFIT's evaluation team had been using a survey called 360° as a means of assessing the tutors' performance. The PIUs thought that this tool could be enhanced by factoring in the tutor's opinion about his or her performance. Additionally, the PIUs thought there was a gap among tutors in terms of knowledge, so they suggested designing a tool to assess a tutor's level of knowledge relative to the strategies of the UBiTAG model, which would help tutors as they advanced along their career development paths.

Based on the uses above, the PIUs formulated five KEQs:

1. To what extent do the different ICT tutoring modalities affect institutional capacity development in schools? (i.e. Is it better having a team of tutors per school or an individual tutor?)
2. As schools increase their level of ICT use and ownership, should the tutor coaching model change? Why and how?
3. What is desirable skill profile of a tutor who is effective in her/his role?
4. How should a successful tutor's role be measured?
5. What indicators could be used for such measurement?

Table 2 summarizes the evaluator's and the primary users' work.

*Table 2: Summary of intended uses and KEQs*

| Intended Evaluation Uses | KEQs | Program objective to which the KEQ is related |
|---|---|---|
| 1. **Reviewing and identifying the most adequate tutoring modalities to support ICT use in schools.** | 1. To what extent do the different ICT tutoring modalities affect institutional capacity development in schools? (i.e. Is it better having a team of tutors per school or an individual tutor?) | To consolidate a network of agents of change who support the management of an educational innovation process aiming at the adoption and use of ICTs in schools. |
| 2. **Measuring success of the Tutor's Network strategy.** | 2. As schools increase their level of ICT use and ownership, should the tutor coaching model change? Why and how? | |
| 3. **Describing the skills profile that tutors should have in order to generate added value.** | 4. What is desirable skill profile of a tutor who is effective in her/his role? | |
| 3. **Finding an effective way of monitoring a tutor's performance.** | 4. How should success of the tutor's role be measured? <br> 5. What indicators could be used for such measurement? | |

Source: Evaluation report (Rodas, 2017).

## Proposed data & collection methods

After formulating the KEQs, the PIUs and the evaluator agreed on the data that needed to be collected in order to respond to the questions. They also identified indicators and possible collection methods. Table 3 provides some examples of proposed data, indicators and data collections methods. As is shown, many of the existing data collection methods were adapted which made the process of re-design less onerous.

*Table 3: Examples of proposed data and collection methods for the Tutors' Network*

| The Tutors's Network Objective: To consolidate a network of agents of change who support the management of an educational innovation process aiming at the adoption and use of ICTs in schools. | | | | | | | |
|---|---|---|---|---|---|---|---|
| Intended Uses | Indicators | Indicator type | Data collection method | Instrument | Does the instrument exist within EAFIT's evaluation system? | When will the indicator be estimated? | Does the indicator exist within EAFIT's evaluation system? |
| **KEQ:** What's the effect of the different ICT tutoring modalities on institutional capacity development of schools? | **U1I1**: Opinion of principals and teachers of participating schools about the effectiveness of the different modalities based on each school's objectives. | Qualitative | Focus group | Question in the appropriate format | No | End of operational period | No |
| | **U1I2:** School's classification scores | Quantitative | Survey | Questions that measure use and ownership of ICTs by school managers and teachers. | Yes | Beginning of operational period | Yes |

| Intended Uses | Indicators | Indicator type | Data collection method | Instrument | Does the instrument exist within EAFIT's evaluation system? | When will the indicator be estimated? | Does the indicator exist within EAFIT's evaluation system? |
|---|---|---|---|---|---|---|---|
| **KEQ:** Should the tutor coaching model change as schools increase their level of ICT use and ownership? Why and how? | **U2I1:** SWOT analysis done by school managers | Qualitative | Group interview | SWOT matrix | Yes | Beginning of operational period | Yes |
| | **U2I3:** Comparison of effectiveness indicators between tutoring modalities. | Quantitative/ Qualitative | Interviews with school managers and teachers Surveys | Capacity matrix SWOT matrix Questions that measure use and ownership of ICTs by school managers and teachers | Yes/No | End of operational period | No |
| **KEQ:** What should the desirable skill profile of a tutor be so that he/ she can be effective in the role? | **U3I1:** Digital capacities test score | Qualitative | Computer-related skill challenges | Digital capacities test | Yes | Beginning of operational period | Yes |
| | **U3I2:** Psychotechnical test score | Quantitative | Questionnaire | Psychotechnical test | Yes | Beginning of operational period | Yes |
| **KEQ:** How should success of the tutor's role be measured? What indicators could be used for such measurement? | **U4I1:** % of tutor's goal achievement. | Quantitative | Survey | Goal achievement form | Yes | Mid-term & end of operational period | Yes |
| | **U4I2:** Opinion of tutors about their accomplishment of goals. | Qualitative | Survey | 360° Instrument | Yes | End of operational period | Yes |

**Source:** Evaluation report (Rodas, 2017)

## Simulation of findings' use

As part of her learning experience, the evaluator decided to apply a U-FE step to do a simulation of findings' use. This step is often skipped due to time constraints and because at first sight it does not appear to be a straightforward exercise. In this particular case, the evaluator built a table with invented –yet probable- findings that would allow PIUs to envisage the proposed data so that as a group, they could assess their actual usability. The simulation helped them make adjustments to the data that they intended to collect, as well as observations about important points that required special attention during implementation. Table 4 shows some examples of the adjustments and comments made by the PIUs and the evaluator.

*Table 4: Simulation of findings use – examples of adjustments and comments made by PIUs*

| KEQ | Proposed data to be collected | Simulated Data | Data adjustment and comments |
|---|---|---|---|
| 1. What's the effect of the different ICT tutoring modalities on institutional capacity development of schools? i.e. Is it better having a team of tutors | % of tutor's goal achievement. | 30% | • This % needs to be compared with the % of goal achievement of the school itself. <br>• We should refer to the strategic guide that was developed for the program. |

| KEQ | Proposed data to be collected | Simulated Data | Data adjustment and comments |
|---|---|---|---|
| per school or an individual tutor? | | | • This data is more related to KEQ #4 and 5 so it should be changed. |
| | Tutor's opinion about the tutoring modalities that seem more efficient. | ~~Based on my experience with schools, I think that the 1-on-1 modality works better for such and such reasons.~~ | We are omitting this indicator because we can obtain the required information from previous work that was done with the tutors through the learning **round table**. |
| 2. Should the tutor coaching model change as schools increase their level of ICT use and ownership? Why and how? | Opinion of school managers and teachers on strategic interests of their school that could be supported by the program. | In our school we give priority to artistic activities. | We need a set of questions for the **Activation Guide** so that we can get the right input from school managers. |
| 3. What should the desirable skill profile of a tutor be so that he/she can be effective in the role? | Opinion of tutors about the capacities a tutor should have in order to be effective in his/her field work taking into account the context of the different schools. | ~~Based on my personal experience, I think that a tutor should have such and such capacities~~ | ~~We need to eliminate this type of data as it would be too subjective.~~ |
| | Tutor's score in his training path. | The tutor's annual score was 300. | This needs to be complemented with a modified training path that would take into account the tutors' perspectives and knowledge about the program. |
| 4. How should success of the tutor's role be measured? | Number of visits to school | Juan made 3 visits per week to school BBB. | It's better to track number hours/week instead of number of visits. |
| 5. What indicators could be used for such measurement? | Opinion of school leaders about the tutor's work. | The principal of school BBB thinks that tutor Juan did a good job throughout the assigned period. | This should be complemented with the existing 360º assessment tool (mid-term and final); and with focus groups at the end of the period. |

**Source:** Evaluation report (Rodas, 2017)

## Suggestions for facilitating findings' use

Although the mentorship provided by DECI-2 only included the design phase of the revised evaluation system, the evaluator was asked by the mentor to reflect and envision how the findings could be used towards the end of the evaluation. Below are some of her suggestions.

✓ **Provide recommendations on suitable modalities to intervene in schools**

Within the UBiTAG model, the PIUs could use the evaluation findings to formalize the process of selecting the most suitable tutoring model for participating schools. For instance, they could organize focus groups with the managers of the schools that were part of the first pilot program – Plan Digital TESO – in order to discuss the findings and brainstorm ideas on how to formalize the selection process for the tutoring model.

✓ **Propose metrics for measuring effectiveness of the tutor's role**

An assumption of the UBiTAG model is that having one or more agents of change (i.e. tutors) who work along with each school to facilitate ICT use is one of the success factors for the adoption of ICTs in schools. The PIUs could use

the evaluation findings to come up with metrics for measuring the effectiveness of the tutor's role so that the different tutoring modalities can be compared. For instance, they could build and test an indicator to measure goal accomplishment.

✓ **Describe the ideal tutor profile and enhance selection process**
PIUs could also use evaluation findings to come up with the ideal tutor profile, which could support the selection process when tutors are hired. Along these lines, the finding could also be used to create an instrument to measure tutors' knowledge against the strategies of the UBiTAG model. This step could help customize tutors' training path.

✓ **Improve tutors' performance assessment system**
The current performance assessment system - which is called 360° – does not take into account the tutor's opinion about his/her own performance. PIUs could use the evaluation findings to suggest ways to incorporate tutors' perspectives into the performance assessment system.

# Lessons Learned

## Why would evaluation experts want to be trained in U-FE?

In the context of the DECI-2 project, providing support to EAFIT's evaluation team was a unique experience in that it was the first time that a mentor tried to enhance capacity among a group of evaluation experts.

According to one of EAFIT's lead investigators, *"EAFIT's interest in U-FE was triggered by the fact that the monitoring and evaluation system of Plan Digital TESO – our flagship program – was falling short. As EAFIT started expanding to other localities and structures, we realized that we required an evaluation system that would allow us to deal with the complexities of having to cater to the needs of different stakeholders within dynamic variations of our programs. We also had to be able to measure different strategic objectives, improve communication between our evaluation team and the other teams within projects, and find more effective ways of communicating our findings in order to support decision-making. We understood that the focus of our evaluation processes had to go beyond contractual accountability. Our evaluation team considered adopting U-FE because it met our needs and allowed us to conduct evaluation that would be useful to a variety of users, making it acceptable and sustainable in different contexts."*

## What were the main contributions of U-FE to EAFIT's evaluation practice?

Learning about U-FE and implementing the approach has been advantageous for EAFIT for three main reasons:

1. U-FE allowed EAFIT's evaluation team to identify information gaps and consider new ways of using findings. This change would not have been possible without U-FE's collaborative nature.
2. U-FE helped EAFIT's team understand that within an evaluation system, the evaluators and the primary users should not be the same people, otherwise the evaluation can fall into a vicious cycle (where the researchers become the users of the evaluation).

3. EAFIT's evaluation team became aware of the importance of identifying and engaging PIUs within each project. They witnessed how doing this helps empower new actors and gets them interested in the evaluation findings. They also noticed that this process has made communication among teams considerably easier.

As a result of the DECI-2's mentoring, EAFIT's team has adopted the following U-FE principles as part of its evaluation practice:

♦ The members of the team now have a better understanding of the importance of identifying intended users and uses of findings. Thus, they now try to build users' capacities and transfer some of the evaluation decision-making to them. This change has reduced the workload of evaluators in routine monitoring processes and it has opened the opportunities for focusing more on research and on innovation within their evaluation practices.

♦ The evaluators' new practice is now to define monitoring indicators with the PIUs of each program based on their identified needs and uses.

♦ The members of the team now see PIUs as field leaders; they realized that the evaluation system should enable these leaders to capture their experiences, adapt their knowledge, and adjust their objectives.

## What made U-FE work?

According to the evaluator, one of the biggest challenges the EAFIT's evaluation team faced as they test drove U-FE was understanding that evaluators are not the users of the evaluation, and acknowledging that doing evaluation for contractual accountability purposes alone contributes little to program improvement. At a personal level, the evaluator noted that *"the most difficult part was accepting my role as a process facilitator and giving up the usual control I had as an evaluator. This implied being more open to listening, accepting that some indicators were not the ones I wanted to see, realizing that there were evaluation questions that I had not considered, and acknowledging that there were unmet information needs. I also became aware that the findings needed to be communicated in such a way that they could be understood by a variety of audiences. Another major challenge I faced was finding the time to facilitate the process as the U-FE steps require a significant amount of time. I had many other responsibilities, so it was hard to cover the steps systematically."*

There were four success factors that helped the evaluator overcome the challenges:

1. U-FE's **collaborative nature** allowed the evaluator to design the evaluation in an inclusive way. She and the primary users were able to have open conversations about what could be truly useful in terms of evaluation findings. From the evaluator's perspective, *"U-FE allows adapting the evaluation from the beginning to serve intended uses, so the results are more likely to be put to work. U-FE's emphasis on intended uses by PIUs seems simple, but it is also very powerful because it customizes the results so that they become useful. This is achieved firstly, by understanding the importance of use; and secondly, by engaging the primary intended users throughout the process so that they become empowered to gain ownership and responsibility to use the results."*

2. The evaluator's and PIUs' **commitment to get through the process**. Besides appointing an evaluator and selecting primary users, there needs to be commitment and determination on a daily basis to get through the process. This engagement is an absolute requirement for U-FE to work.

3. The **simulation of use**. "*In my experience as evaluator, U-FE's simulation step is a very interesting exercise because it allows for negotiation and validation with the PIUs about their expectations versus the reality of what can be achieved with the evaluation findings, as well as the means. Simulating data use allows PIUs to reduce the gap between the "what they think they want" and what they really need. Under the U-FE approach, the design of the evaluation is an iterative process, so the uses and the KEQs may change. The simulation step is very helpful for adjusting and refining the design. This step is most often missing in traditional evaluation approaches, where the evaluator moves right away from design to implementation, and usually discovers the gaps when it's too late to make adjustments.*"

4. **On-going mentorship** is another key success factor for an evaluator who was new to the U-FE approach. The evaluator's perspective on the importance of mentorship is as follows: "*I don't think that an evaluator without prior experience can just study about U-FE and systematically apply it on her own. The implementation of U-FE requires not just a theoretical foundation, but also practical experience in order to know how to handle daily situations that emerge between the evaluator and the PIUs. That's the value the mentor brings to the table. In our case, his on-going support and advice were important to manage the relationship between the evaluator and the PIUs. For an evaluator who is used to conducting evaluation based on traditional approaches, the mentor also plays an important role at providing facilitation support and at continuously reminding the evaluator to change her way of thinking in regards to how to lead the evaluation process.*"

## How can U-FE help scale-up EAFIT's projects for promoting the use of ICTs in schools?

The UBiTAG model has been quite successful at promoting the use of ICTs in schools at a small scale (i.e. Plan Digital Teso supported 24 schools). However, EAFIT's greatest challenge is to scale up its interventions. Reflecting on this challenge, one of EAFIT's lead researchers said: "*U-FE could play an important role because it helped us realize that we needed to include different stakeholders as PIUs. This forced us to develop and adopt new processes and tools for collecting, discussing and reporting data and information more efficiently and faster. These tools are and will be very useful as we scale up and transfer our programs to other contexts because evaluation is now embedded as a field process.*"

## Linking U-FE to Research Communication

The DECI-2 model seeks to integrate evaluation and communication processes following U-FE and ResCom principles. In the partnership with EAFIT, the DECI-2 team made a few attempts to provide Research Communication mentoring. Although the EAFIT project had a very strong communications' unit, there was no specific person to mentor. However, it is interesting to observe that one of the most evident outcomes of the U-

FE process had to do with how researchers had improved their processes and channels to communicate findings to field staff and other stakeholders. One of EAFIT's researchers and lead of the evaluation team was asked to explain how the U-FE mentorship had helped her team improve its evaluation practice. As she elaborated on her answer, it became quite clear that U-FE not only influenced EAFIT's way of doing evaluation, but also its communication practice:

*"Adopting U-FE into our evaluation system to assess the use of ICTs in schools has led us to understand the importance of better communicating findings in order to maximize their use and support decision-making. This has encouraged us to find more efficient ways and media for presenting results to different audiences. As a result, our evaluation team has explored different data visualization tools. Prior to the DECI-2 mentorship, our system delivered monitoring-related information on a monthly basis because it took us a long time to put the data on paper, analyze it and share it through reports. Based on our U-FE experience, we now collect and share data in real time by using visualization tools such as Powerbi. This has made our communication processes more effective and efficient. Therefore, I can say that on-going communication with intended users is a new practice that has emerged from EAFIT's exposure to U-FE."*

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