Learning about the effects of development education programmes

Strengthening planning, monitoring, and evaluation (PME) through reflective practice

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Abstract

This article reports on the results of an action research project (2010–13) in which ten Belgian organizations who implement development education programmes explored different planning, monitoring, and evaluation (PME) approaches with the aim of learning more effectively about their results. PME approaches piloted included outcome mapping, most significant change, and scoring tools. This article seeks to further the debate about the implications of the complexity of development education programmes for their PME. Such debate is needed in view of a growing call for results-based management of externally funded development education programmes. Based on the literature from the fields of international development cooperation and development education, and supported by our study results, we argue that there is a need for alternative results-based management approaches that promote learning and help actors involved in development education deal with unpredictability and non-linearity.

Keywords: Monitoring and evaluation, complexity, development education, action research, outcome mapping, most significant change

Introduction

In line with the growing international call for results-based management in the international development sector – whereby development actors are asked to be accountable for and demonstrate achievement of 'measurable' results (OECD, 2005; 2008; 2011; Open Forum for CSO Development Effectiveness, 2010) – development education programmes receiving public funding are confronted with an increasing demand for results (Nygaard, 2009; Krause, 2010). The continued pressure on public funding due to the global financial crisis (Lappalainen, 2010) and the public's falling confidence in traditional development actors in some countries like Belgium (Pollet, 2013) also contributes to this escalating results-focused agenda.

At the same time, organizations face considerable challenges to respond to this call for results and to monitor and evaluate the effects or impact of their development education programmes (Scheunpflug and McDonnell, 2008; IOB, 2009; Dominy et al., 2011; Bourn and Hunt, 2011). Similar challenges face the field of international development cooperation, where there is also an ongoing debate about the appropriateness of different theoretical perspectives underpinning the practice of results-based management and associated approaches to PME. If and how PME can significantly contribute to learning is one of the questions continuing to fuel this debate (Crawford and Pollack, 2004; Watson, 2006; Guijt, 2008). The question is also relevant for development education practice. While much of the normative PME literature stresses the importance of learning and reflection, in reality many studies highlight the failure of mainstream PME approaches in such areas (Biggs and Smith, 2003; Guijt, 2008; Smit, 2007). There is an extensive school of researchers and practitioners who see the problems with learning as stemming from PME approaches that are based on a functionalist paradigm and which are often mandatory for organizations that receive public funding (Gasper, 1997; Earle, 2003; Biggs and Smith, 2003; Crawford, 2004; Davies, 2005; Bakewell and Garbutt, 2005). Such a perspective results from PME methods like the logical framework that have a strong focus on accountability and control. These methods also tend to be in conflict with the interpretive paradigm required for learning and reflection and have a further tendency to push out or ignore context and values.

Results-based management can also be approached from a more complexity-oriented perspective. Such a stance is rather critical of the functionalist approach, especially when confronted with complex change processes (Ling, 2012; Stern *et al.*, 2012; Mowles, 2010; Rogers, 2008; Guijt, 2008). A complexity perspective accepts that the relation between cause and effect in complex change processes is unpredictable and comes with a high level of uncertainty (Ling, 2012) and emergent outcomes (Rogers, 2008). While the use of linear logic models such as the logframe remains widespread within the international development sector (OECD-DAC, 2009; Davies,

2005), over the years a rich variety of PME approaches that are more complexity oriented has been developed and implemented across a wide range of international development programmes and contexts (Stern *et al.*, 2012; Jones, 2011; Ling, 2012; Davies and Dart, 2005; Earl *et al.*, 2001). Development educators therefore have a lot to learn from experience in international development programmes with complexity-oriented approaches to PME.

It is in this context that ten Belgian organizations who implement various development education programmes decided to participate in a participative action research process (2010–13) where they experimented with various planning, monitoring, and evaluation (PME) approaches to demonstrate and learn from their programmes' results. These approaches included outcome mapping, most significant change, and scoring tools. The action research was implemented in the context of the PULSE research platform¹ with support from the Flemish Inter-University Council (VLIR-UOS) and the Belgian Ministry of Development Cooperation. One researcher from the University of Leuven's Institute of Work and Society (HIVA) facilitated the action research.

In this article we draw on the literature to describe the complexity of development education initiatives and its implications for PME. Building on the results of the action research we discuss the advantages of clarifying an actor-centred theory of change for developing a system of PME. We also review the added value of the learning-centred PME approaches piloted in the various cases involved in the action research.

Exploring and strengthening PME practice through action research

Action research (AR) was chosen as the method for this study because of its flexible spiral process, which allows action (change, improvement) and research (reflection, understanding, knowledge) to coincide with each other. The understanding allows for more informed change and is informed at the same time by that change. People affected by the change are involved in the action research. This allows the understanding to be widely shared and the change pursued with commitment (Dick, 2002). In practice it put the organizations that participated in the PULSE action research in the driving seat of the research process and actively involved them in a systematic process of reflection on their PME practice. In this way they were able to extract lessons that could inform and strengthen it. The lessons from the individual organizations were also fed back into the collective learning process of those participating in the PULSE programme. The external researcher acted as a facilitator throughout the action research process. Figure 1 illustrates the essential steps in the action research.

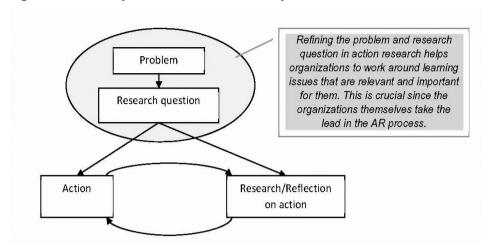


Figure 1: Main steps of the action research process

Source: Adapted from the Bamenda model of practical action research (Hughes et al., 2004)

The 'action' in Figure 1 refers to the implementation of PME activities by the participating organizations. The 'research' refers to the process of reflection about the implementation of such activities. Both processes inform each other throughout the action research process.

The action research approach used in this study is not a value-free process in which the researchers behave as expert independent observers. Instead, in line with the definition of action research by Reason and Bradbury (2001), the research has brought together action and reflection, theory and practice, in collaboration with research participants, to explore practical solutions towards improving PME practice. Instead of being concerned about objectivity, distance, and controls – as conventional research would be – as action researchers we worry about 'relevance, social change, and validity tested in action by the research participants' (Brydon-Miller *et al.*, 2003).

The action research started with each participating organization clarifying the respective PME challenges and research questions they wanted to address during the action research. This took place in reflection sessions with representatives from the case and the research coordinator (two sessions per case). Each case then developed their research plan – which identified the data to be collected within the PME pilot, how they were going to reflect on these data, and who was going to be involved in data collection and reflection – in an interactive process between cases and research coordinator. Various reflection methods were used by the different cases, including, among others, reflection workshops, personal observation, focus group discussions, document reviews, unstructured interviews, and participant observation by the

research coordinator. Collective learning moments (three workshops over a three-year period) were organized to share results among the different cases.

It proved highly challenging, however, for the cases to develop their research plan and systematically follow it through during the action research. Day-to-day programme work would often take priority over the research activities. It was also difficult to plan PME activities in advance and they were often adjusted according to changing needs and contexts, and in two cases no monitoring cycles were ever completed. Furthermore, it often took significantly more time to introduce, customize, and implement PME approaches than originally planned. As a result cases often only managed to implement one or two monitoring cycles during the course of the research.

Dealing with the complexity of development education interventions

The unpredictable nature of human behaviour, linked as it is with the multitude of interacting relationships between various actors, makes social systems and therefore social development processes complex (Woodhill, 2008). Recognizing this has important implications for PME as it questions the relevance of results-based planning models that assume linear cause-and-effect relationships and predictable outcomes when dealing with complex situations.

The objectives pursued by development education interventions can be considered complex as they are determined by a multitude of factors such as knowledge, attitudes, behaviour, and context which are not related to each other in a linear way. Liddy (2010) refers to the importance of the historical and social context in which development education takes place as this will affect how learners build on their existing understanding of the world and how they will act. Mowles (2010) also used the importance of the historical and social context, as well as power within a particular setting, to explain how seemingly small differences between locally interacting agents can have unpredictably large population-wide effects, and why the effects of similar activities can be dramatically different. Hence, unexpected and unpredictable factors will affect how learners respond to development education activities.

Interestingly, the complexity of development education processes also emerged from quantitative survey research into the relationship between the dimensions of the education continuum (i.e. knowledge, attitudes, and behaviour) underlying public awareness about development cooperation and global solidarity.

As Kinsbergen and Schulpen (2009) illustrated, the relationship between attitude and behaviour is not necessarily positive. The researchers demonstrated that

people with a positive attitude towards development cooperation either donate less or engage less. In contrast, another public poll carried out by HIVA in Belgium (Pollet, 2010) shows a strong, positive relationship between attitude about development cooperation and donating funds, and somehow contradicts the interpretation by the Dutch researchers that the public may engage less because they feel that government is already doing enough. Also, an increased knowledge about development cooperation will not necessarily make a person's attitude more positive. While several studies have shown that increased knowledge does not make an attitude more negative or lead to less engagement (Kinsbergen and Schulpen, 2009; Pollet, 2010), the link between knowledge, a positive attitude, and stronger engagement has been shown to be rather weak (Pollet, 2010). The public seems able to form its own attitude about a specific issue of development cooperation without necessarily having adequate knowledge of the issue (Develtere, 2003). This has led some policymakers to question the need to focus on public support activities that seek to strengthen knowledge (IOB, 2009). On the other hand, knowledge about the Millennium Development Goals (MDGs) was found to be positively linked with the willingness to donate more money or to be involved more actively in one way or another (Kinsbergen and Schulpen, 2009). Also, an impact study about global education in Flemish schools by the Centre of Experiential Learning (Laevers et al., 2010) showed a strong, positive link between knowledge about NGOs and competencies related to global citizenship among 12- to 18-year-olds. The same study showed that pupils often have a stereotypical image of the South, however, so it remains difficult to apply the knowledge acquired through global education activities in concrete contexts.

The complexity of development education processes has some practical implications for PME. First, results-based management approaches that follow a linear planning logic, assuming a linear causal link between cause (activity) and effect (outcome or impact), will be less relevant for managing the results of development education interventions because the results of such interventions cannot be treated as problems that can be solved through rigorous analysis, planning, and the formulation of SMART indicators (i.e. Specific-Measurable-Appropriate-Relevant-Timed). SMART indicators run the risk of missing the unexpected effects that will occur as a result of the many unforeseen and uncontrollable factors that inevitably contribute to any outcomes. It will also be hard to predetermine targets or timing for change that cannot be predicted. Furthermore, the diverse and often intangible effects related to individual intentions and understandings (Hunt, 2013) will be difficult to capture with one standardized monitoring framework (Bracken and Bryan, 2011).

In view of the aforementioned implications, standardized quantitative survey instruments, while providing a workable and quick means of assessing knowledge, attitudes, or behavioural change over a large number of people, seem rather inadequate to draw rich lessons about the impact of development education interventions and the factors that contribute to it (Bracken and Bryan, 2010; Hudson and Van Heerde, 2012). Also, the often weak theoretical concepts and lack of an empirical base - in the form of agreed-upon good practice in development education - is another challenge for designing PME approaches based on predefined criteria on quality (Scheunpflug and McDonnell, 2008). A subjective dimension towards evaluation and measurement in development education might be more appropriate, as compared to 'an objective stance associated with functional measurement approaches' (Liddy, 2010: 3). Instead of abstracting the actors in the development education process, it positions them and their learning centrally in the PME process. It can also help counter the risk of diverting attention away from results that are less easily quantifiable, following the increasing emphasis on results (Bracken and Bryan, 2011). In the next sections we discuss three PME approaches piloted during the action research that might help put this subjective dimension into practice. These include outcome mapping, most significant change, and scoring tools.

Clarifying an actor-centred theory of change

Any planning process can result from a functionalist or an interpretive perspective. A functionalist perspective breaks down the desired changes into functional elements – i.e. the units of work/effort required to bring about the planned change (Crawford *et al.*, 2005). Such a perspective – as is the case with many logical frameworks – has a tendency to abstract the human actors a project seeks to influence and focuses instead on the function or roles of the programme implementation team (i.e. project activities). This frequently results in less clarity about the changes the project seeks to contribute to at the level of the actors the implementing team intends to influence directly or indirectly (Mowles, 2010). Not surprisingly, an PME system based on such an approach will find it easier to monitor the outputs of a project's activities instead of its effects.

An interpretive approach to planning, on the other hand, involves articulating the roles and expectations of the key human actors in the change process. It acknowledges that social change, by definition, involves human actors interacting within a system (Crawford *et al.*, 2005). Planning according to such an approach involves clarifying and describing specific changes at the level of the actors the project seeks to influence directly or indirectly. Such changes, to which the project hopes to contribute, can

provide a framework for monitoring and evaluating its effects. The resulting project plan is sometimes referred to as an actor-focused theory of change. Outcome mapping is a PME approach underpinned by an interpretive perspective (Earl *et al.*, 2001). It offers a flexible planning framework that focuses attention on changes in the behaviour or relationships of those actors a project seeks to influence directly. Outcome mapping doesn't follow a linear planning logic nor claims attribution, as it recognizes that other actors and factors beyond any intervention will contribute to its results. Its strong actor focus and emphasis towards ongoing reflection, learning, and adaptation make it particularly attractive as a PME approach for dealing with processes of complex change.

The five organizations who piloted outcome mapping during the action research indicated that the approach helped them gain deeper insights about their programme's actor-focused theory of change. Its concept of spheres of influence was found to be particularly useful in that respect. It helped them develop a better, more shared understanding of who is situated in a programme's sphere of control (i.e. the actors who have control over a programme's activities and resources), in the sphere of direct influence (i.e. the actors directly influenced by the intervention's activities), and in the sphere of indirect influence (i.e. the actors who are only indirectly influenced by the intervention). The case of World Solidarity outlined below illustrates how the development of an actor-centred theory of change through outcome mapping's concept of spheres of influence helped strengthen their programme's PME system.

World Solidarity is the development NGO of the Christian Labour Movement in Belgium. It implements a development education programme that aims to increase knowledge and engagement for social protection and decent work as instruments to combat inequality. To contribute to this objective, World Solidarity organizes yearly campaigns around specific issues of social protection. In addition, it facilitates 'immersion visits' to its projects in the South for members from the organizations of the Christian Labour Movement such as the Christian Trade Union (ACV) or the Christian Health Insurance Fund (CM). Guests from the South are also invited to give workshops and presentations during World Solidarity's annual International Week. Insufficient goal clarity and limited shared understanding about the expected effects led to considerable challenges regarding PME. To address these challenges, the development education team tried to clarify its programme's theory of change according to outcome mapping's spheres of influence tool. Figure 2 summarizes the result of this exercise.

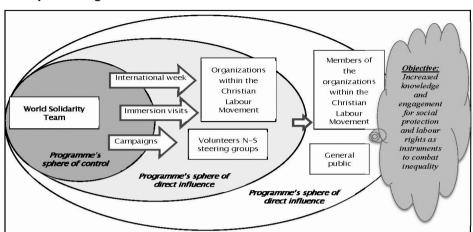


Figure 2: Simplified representation of World Solidarity's actor-centred theory of change

This exercise helped the team realize that they were only indirectly influencing the final target groups in the sphere of indirect influence (i.e. the constituency or members of the organizations within the Christian Labour Movement and the general public). It became clear that their direct influence was limited towards the actors in the programme's sphere of direct influence such as decision makers and the North-South steering teams within the organizations of the Christian Labour Movement. The realization opened up a new results level where effects in the direct target groups could be monitored. Monitoring at that level had been lacking in the past as the team had focused mainly on change in the actors in the programme's sphere of indirect influence. Furthermore, clarifying the different actors in the different spheres of influence also increased understanding about the effects that the programme hoped to see within these target groups. This led to the deeper understanding that the envisaged effects within the direct target groups were more related to capacity development regarding the implementation of development education activities. Effects in the indirect target groups were more connected to the objectives of development education regarding knowledge, attitudes, and behaviour in relation to North-South issues.

Planning for data collection and data analysis

From the theories of change developed in the cases participating in the action research, the following two groups of distinct effects requiring different PME approaches emerged: 1) effects related to capacity development of organizations

that are directly influenced by the intervention with a view of strengthening them to implement development education activities; and 2) changes in the knowledge, attitudes, and behaviour of people influenced directly or indirectly by the development education intervention. Below we elaborate on the methodological implications of these two groups of effects for PME.

Monitoring effects pertaining to capacity development

Capacity development in relation to the improved implementation of development education activities emerged as a major objective within the development education interventions of the action research cases. Changes in capacity are therefore important effects that can be monitored. As we mentioned earlier in the article, World Solidarity sought to strengthen the capacity of the decision makers and the North-South steering teams within the organizations of the Christian Labour Movement to implement development education activities with their respective target groups. Similarly, a school link programme implemented by the Flemish Organization for Development Cooperation and Technical Assistance (VVOB) aimed to strengthen schools' capacity to sustain their respective links and implement development education activities for their pupils. Both cases used the concept of progress markers from the outcome mapping approach to develop a monitoring framework for such capacity development processes. Progress markers describe observable changes in the behaviour or relationships of the actors a programme seeks to influence directly (Earl et al., 2001). A set of progress markers is developed for each actor, consisting of changes that represent an early response to the intervention's activities (i.e. 'expect to see' progress markers), changes that are more involving ('like to see' progress markers), and changes that are more profound ('love to see' progress markers). As a set, progress markers illustrate the complexity of the change process. They differ from SMART indicators in that they are not necessarily timed nor specified with pre-set targets. Only when they materialize, as observed during the monitoring process, will the timing and specifics become clear. Progress markers are therefore not supposed to be used as rigid targets against which progress is measured. Instead they provide a framework for dialogue or reflection on progress, and they can be adjusted during monitoring cycles (Earl et al., 2001). Table 1 illustrates the progress markers World Solidarity developed for the organizations of the Christian Labour Movement whom they support directly.

Table 1: Progress markers for one of World Solidarity's direct target groups

World Solidarity 'expects to see' the organizations of the Christian Labour Movement		
1	participate as a partner in the campaigns organized by World Solidarity	
2	propagate and share information received by World Solidarity among their staff	

World Solidarity 'likes to see' the organizations of the Christian Labour Movement		
3	allow their staff to participate in training sessions organized by World Solidarity	
4	integrate international solidarity in their mission	
5	delegate staff to be involved part time in development education activities	
World Solidarity 'loves to see' the organizations of the Christian Labour Movement		
6	organize their own development education activities	
7	implement a fair trade policy	

While World Solidarity, at this stage in the action research, had not yet implemented the progress markers during the monitoring, the team shared that the process of developing them had enhanced their understanding of the change they hoped to contribute to, and as such had helped to further refine their development education programme's actor-focused theory of change.

In the VVOB school link programme, progress markers were formulated to monitor progress in the capacity development process of the schools. Staff decided that change at the level of the individual pupils would not be monitored on a regular basis as this was seen as unpractical and too involving. They also assumed that positive change at the level of the schools would have an effect on the pupils indirectly. A further reason was that effects at the level of the pupils would take too long to materialize and be too difficult to attribute to the programme due to the influence of many other additional factors. Interestingly, VVOB customized the progress markers tool by formulating more general categories of progress markers. It also didn't use the 'expect', 'like', and 'love to see' concept when doing so. Some examples of the progress marker categories for the schools are shown in Table 2.

Table 2: Extract of progress marker categories for schools involved in the VVOB school link programme

- 1. The school management actively supports the school link
- 2. The teachers are actively engaged in the school link
- 3. There is internal communication about the school link within the school
- 4. There is communication about the school link between the partners of the school link

Furthermore, for each progress marker category, VVOB developed a rubric that sets out four statements that describe criteria for assessing different levels of performance within a progress marker category. This helps make the process of synthesizing evidence into an overall evaluative judgement more transparent (Rogers, 2013). An example of a progress marker and its accompanying rubric is shown in Table 3.

Table 3: One progress marker category with associated rubric in VVOB's school link programme

Pro	Progress marker: The school management actively supports the school link			
1	School management supports the initiative, but is hardly informed about the implementation of the school link	Low (=1)		
2	School management supports the initiative, is informed about it, but is only involved in a limited way (e.g. Management receives reports of meetings pertaining to the school link)	Medium Low (=2)		
3	School management is actively involved (participates in work meetings and trainings, acts as a communication partner, participates in visits of the sister school, etc.)	Medium High (=3)		
4	School management acts as pacemaker of the school link initiative. (motivates other teachers, stimulates activities, looks for additional funding, involves parents and the school board, etc.)	High (=4)		

Staff at VVOB do not communicate the progress markers to the schools. They use them internally as an analytic framework that guides reflection on their personal observations during school visits and on activity reports compiled by the schools. After using the progress markers for one year, VVOB staff highlighted a number of advantages and challenges illustrated in Table 4. One such advantage was that the progress markers helped the VVOB team develop deeper insights into the programme's theory of change and allowed them to strengthen or adjust their support for the schools. The progress markers were therefore perceived by the VVOB staff to be useful for tightening the school links. They also helped VVOB report to the donor about the programme's progress on its specific objective. The challenges mainly concerned the effort required to regularly follow up the progress markers, the process of making evaluative statements about them, and concerns about the robustness of the approach for impact evaluation.

Table 4: Advantages and challenges associated with the use of progress markers in VVOB's school link programme

Advantages	Challenges
Developing the progress markers helped refine the school link programme's theory of change Helped develop a clearer understanding about the results the programme hoped to achieve	Systematic analysis and subsequent translation into scores of monitoring information from school reports and field visits according to the progress markers takes time and effort. The added value of this effort as compared to a more subjective general appreciation (as was done in the past) wasn't yet fully clear for the VVOB staff. Some added value in the short term was seen in the fact that they could now claim that their monitoring system was more robust. This was seen as important by external stakeholders such as the donor. VVOB thought it was too early to make statements about the added value in the long term

- Helped structure VVOB's support towards the schools
- Made VVOB's advice towards the schools more focused and structured
- There was concern about the element of subjectivity when making evaluative statements about the progress markers. VVOB staff are not always able to observe the situation concerning certain progress markers directly and sometimes depend on the information stakeholders give them. They might therefore be at risk of describing an inaccurately positive picture because it is socially desirable to do so. This was felt to be a significantly greater challenge because the VVOB is both supporter, donor, and evaluator
- · Analysis of the various progress markers across the different school links
- For the purpose of impact evaluation, VVOB staff felt the regular monitoring through the progress markers needed to be complemented with surveys for teachers and pupils

Monitoring effects as changes in knowledge, attitudes, and behaviour

A second group of effects relates to changes in the knowledge, attitudes, and behaviour of the groups targeted by development education interventions, Monitoring such effects proved challenging for the majority of cases in the action research, in large part because the effects anticipated by the interventions had been only narrowly conceptualized. In such cases, programme teams found it difficult to conceptualize the kind of change they seek to contribute to and to design data collection tools to monitor change among the target groups. Also, the analysis of the monitoring data presented problems in such situations because there wasn't an analytic lens to look at the data through. Interestingly, however, in those cases where an organization made an effort during the action research to clarify their theory of change, we saw evidence that programme teams were able to customize and implement a variety of PME approaches - such as customized scoring tools and most significant change - which helped them monitor and learn about their programme's effects more frequently. Below we discuss how a scoring tool was used in the case of Trias to monitor changes in knowledge, attitudes, and behaviour among its partner organizations in Belgium and the South. We also elaborate on the experiences of VLIR UOS and VVOB of using the most significant change methodology.

Customizing a scoring tool for monitoring changes in knowledge, attitudes, and behaviour

Trias, a Belgian NGO, developed a scoring tool to monitor changes in the knowledge, attitudes, and behaviour of the Belgian partner organizations they support as part of their interaction and collaboration with Southern civil society organizations. Similar to the rubric previously discussed in the VVOB case, the scoring tool contains a number of statements that describe criteria for assessing different levels of performance in different dimensions of knowledge, attitudes, and behaviour. The statements provide a framework to reflect on monitoring information which is collected in the form of personal observations by Trias' staff, activity reports,

and focus group discussions with groups of administrators, staff, and volunteering members from their partner organizations in the North and the South.

Each dimension of the scoring tool can be scored on a scale from 0 to 10. The specific descriptions of change associated with score values help the scoring during each monitoring cycle. Besides giving a numeric score, there is also room to provide an explanation for why a specific score was given. Together with the qualitative justifications, the scores are used during collective reflection meetings where progress among the various partners is discussed with the whole Trias team. The scores are also aggregated across the various dimensions to get one value for each of the main indicators of knowledge, attitudes, and behaviour per partner organization. Such aggregated values help the team visualize trends over time and assist them in their reporting to their main donor, the Belgian Ministry of Development Cooperation. An extract of the scoring tool is illustrated in Figure 3.

4 8 10 1 Explanation Score Knowledge Half of the focus A majority of the A minority of the group knows focus group knows focus group knows different elements Understanding different elements of different elements of development North-South of North-South of North-South cooperation cooperation cooperation cooperation A majority the focus Stereotypes and More accurate outdated views on insights in the group has more Understanding of the context context of MBOs in context of MBOs accurate insights in the North or South in North or South in North and the context of MBOs still exist among a in North or South. South exist among the majority of the focus focus group group Attitude Image about The majority of the A majority of the A majority of the solidarity with focus group has no or focus group focus group sees the North or the very limited idea of mentions an added building relations and South: relations what the added value of value for one of the partnerships with with the North or a partnership with other other MBOs with parties in the the South have MBOs in North or relationship other MBOs in North an added value South can be or South as an added for both parties value for both parties

Figure 3: Extract from the Trias scoring tool

A reflection session by the Trias coordinators about their experiences with the scoring tool after two years of implementation highlighted some specific advantages as well as pertinent challenges – see Table 5 – regarding the use of the tool and the organization of focus groups. Focus groups were seen as the most suitable method for collecting information about the partner organizations' changes in knowledge, attitudes, and behaviour.

Table 5: Main insights from reflection on the use of focus group discussions and the scoring tool

Advantages Challenges · Partner organizations have limited time available to Using focus groups helps collect invest in focus group discussions (FGDs) information about the effects of the programme regarding changes in the Sometimes there is a feeling that the FGDs overlap partner organizations' knowledge, attitudes, with other PME activities. Therefore FGDs are seen and behaviour as extra work · People appreciate that they can give input · Partner organizations sometimes doubt if their and that they are listened to input during FGDs is valuable or important enough It sometimes seems more interesting for Trias than · Follow-up during focus groups on expectations and concerns mentioned the for the partner organizations previous year can strengthen participation · It is questionable whether the FGD with a limited in the process number of people is adequate as a tool to get a · Volunteers find the focus groups a rich broad idea about the changes in the partners learning opportunity. They are prepared It is sometimes difficult to decide which score to to invest time in it. At the start it is often give. Also, the qualitative descriptions of change questioned what will come out of the focus that come with the various scores can sometimes group but in the end, two years in a row, be interpreted in different ways it has proved an interesting and insightful experience

The advantages and disadvantages shown in Table 5 point towards three interesting contradictions:

- The focus groups are mainly of use for Trias and not for the partners, yet the partners do find the focus group discussions an interesting and insightful *experience*. This contradiction points towards the sometimes difficult balance between the accountability and learning agenda for PME and whether the PME process constitutes a learning process for the various stakeholders or if its main purpose is to extract information from them to satisfy requirements for upward accountability. The feedback from the partner organizations shows that the monitoring process runs the risk of being perceived as too extractive. While the basis for learning seems to be there, greater efforts might need to be made to be transparent, to provide feedback about how the lessons learned during the monitoring process are assimilated, and to encourage the partners to actively participate so they can be involved in making decisions about how these lessons might be used to adjust the programme. Since different stakeholders might have different agendas regarding PME, it will be necessary to be clear about these agendas and to negotiate the various purposes of the PME activities (James, 2009).
- People appreciate that they can give input and enjoy being listened to, but also feel their input during the focus group discussion might not be valuable

or important enough. Self-assessment can be a feasible and powerful tool for PME because the actors a programme is trying to influence are often in the best position to identify meaningful change. This contradiction shows that people find it exciting to partake in such a process of self-assessment but sometimes doubt the significance of their stories or contributions. This observation highlights an important aspect of a learning-centred self-assessment process: not all our stories need to be grand narratives. In fact, stories can also be accounts of the simple things in life and might comprise a single anecdote that holds significance for the writer or the teller. Such stories contain the seeds for real learning (Hill, 2010). Good facilitation will not only help create the safe environment and focus for people to share their stories, it will ensure there is the necessary organizational time to do it well (James, 2009).

• The focus group discussion does provide information about the effects of the programme, but the scoring of the scoring tool might be subjective. This contradiction relates to the question of whether Trias needs to adopt an objective or interpretive approach. As we stated earlier in the paper, any process involving change in knowledge, attitudes, and behaviour regarding the objectives of development education can be considered complex. Objective measures to make evaluative statements might be less relevant in such contexts. Instead, different interpretations might benefit the learning process regarding the programme's contribution to learning about global issues (Bourn, 2011). It is therefore important that different perspectives can be heard and explored in depth during the focus group discussion. When scores are given on the basis of such perspectives, it will be more useful to use them as a stimulus for further reflection than to take them as objective truths. Doing so will provide the necessary information to build up a well-supported argument or judgement about progress and learning in the programme.

Learning about an intervention's effects through most significant change

The most significant change approach was piloted with mixed success by two cases during the action research. Essentially it involves collecting significant change stories from target groups that have been influenced by an intervention. Once stories about changes have been captured, project staff or other stakeholders sit down together, read the stories aloud, and have in-depth discussions about the value of the reported changes. The process often results in the selection of one 'most significant story' from among the various captured. Learning occurs through discussion and can inform areas for improving an intervention (Davies and Dart, 2005).

VLIR-UOS, an umbrella organization that funds international development cooperation initiatives of Flemish universities, chose to pilot most significant change to learn about the effects of its student scholarship programme. The programme provides funding for students who are attached for a few months to development projects. It aims to sensitize students to become ambassadors for global solidarity. Returning students are expected to share the insights they gained from their experience in the South with their colleagues, friends, and family. The questionnaires each student had to fill in on their return generated a large number of reports from which VLIR-UOS coordinators found it difficult to draw useful and practical lessons. As it was not feasibly practical to interview students during a second pilot of the most significant change approach, coordinators were asked to write one story that demonstrated a significant change in one of their students, based on the information from their questionnaire and, if necessary, additional conversations with them. Table 6 illustrates one such story, as well as the reason why the coordinator considered it significant. A story-selection process about the collected stories was then organized during a collective reflection meeting with coordinators.

Table 6: Illustration of a most significant change story from a student participant of 'VLIR-UOS' scholarship programme

What did you consider to represent a most significant change with one of your students who participated in the scholarship programme?

Through her first-hand experience with (large) cultural differences in Ghana, the student can now empathize much better with the children in her class who come from a different culture. She gained this skill because she has experienced how challenging it can be to adapt to a new culture. On communicating with people from a different culture the student indicates that she learned that non-verbal communication is very important. As a 'negative' experience, the student mentioned how 'culture clashes' contributed to the difficulty of making clear agreements and things being completely different than planned

Why is this story significant for you?

The story is important to me because the student, when she will work as a teacher, will be in contact with many young people and therefore there can be a strong multiplication effect. Unfortunately, I was unable to get more feedback from the student because it would be interesting to learn more about specific experiences about adjusting to a new culture the student experienced in Ghana and how she can use this in her work as a teacher in Belgium. Also, concrete examples of the non-verbal communication and the importance of that would have been useful. Also, examples of the problems faced with making agreements and how this has changed the student would be useful to learn from

An interesting contradiction emerged from the reflection meeting. On the one hand, coordinators questioned what conclusions could be drawn regarding the effects or impact the scholarship programme had had as a whole in view of the limited number of stories. There were also doubts about the fact that the significant change was not always clearly described in the student's feedback in the questionnaire and was therefore identified as a result of the coordinator's interpretation. On the other hand, the coordinators also revealed that the discussions triggered by the stories

during the story-selection process made them ask the right questions about the programme. One such question related to the programme's objective, about which there didn't seem to be a consensus among the coordinators. While some assumed the programme's main aim was for development to have an impact in the South, others thought that sensitization and awareness-raising in Belgium was the main purpose. There was also no clear conceptualization or vision about what such an impact or sensitization would specifically entail. Another realization to emerge was that the feedback from the returning students was not effectively utilized to inform the pre- and post-attachment training and reflection sessions with them. Such insights triggered by the first most significant change session helped convince the coordinators about the feasibility and potential of the method and led to the overall consensus to integrate it in the yearly monitoring cycles. They also decided to integrate one section in the returning students' questionnaire that asked for one most significant story with a main focus on personal change regarding the objectives of development education.

While there are strong indications that the most significant change pilot led coordinators to critically question the scholarship programme's theory of change, evidence about changes at the level of knowledge, attitudes, and behaviour remained limited. Such a finding is in line with the observations from the VVOB case where most significant change was also piloted in a reflection session with teachers involved in the school link programme. Teachers found the approach generally useful and motivating, and were able to share and learn from the practical experiences of other colleagues when setting up and managing their school links. An important insight for the teachers, for example, was that colleagues faced similar problems with setting up a school link, Realizing this made them more realistic about their objectives and the time it takes to achieve them. For the VVOB management, such insights about practical issues involved in setting up a school link were unexpected but useful. At the same time, however, and similarly to the VLIR-UOS case, VVOB's first most significant change exercise did not provide compelling insights into how the school link programme affected teachers' knowledge, attitudes, and behaviour. Also, at this stage in the action research it was unclear if or to what extent VVOB management would consider the most significant change approach in future PME cycles.

We have to be cautious when drawing conclusions from the results of the two most significant change pilots. But the fact that programme stakeholders in both cases were enthusiastic about the process – as it triggered critical reflection and helped them ask the right questions about what mattered to them most – highlights its potential to provide programmes with a practical and participatory approach to PME that can stimulate learning.

Conclusion

This article has sought to further the debate about the implications of the complexity of development education programmes for their PME. Such debate is needed in view of a growing call for results-based management of such externally funded programmes. Based on the literature from the fields of international development cooperation and development education, and supported by our study results, we have argued that there is a need for alternative results-based management approaches that promote learning and help actors involved in development education deal with unpredictability and non-linearity. It is within this context that several Belgian organizations participated in an action research process (2010–13) to explore how different complexity-oriented PME approaches could help them to learn about the effects of their development education interventions. The piloted approaches discussed in this article include outcome mapping, most significant change, and scoring tools.

From the action research we have learnt that organizations face considerable challenges in demonstrating and learning about the results or effects of their development education programmes. In the majority of cases, PME tended to focus mainly on the outputs of programme activities, such as the number of people that attended a specific event or activity. Monitoring the effects or impact of such activities over time was perceived to be much more difficult, as the following quote from one NGO representative illustrates:

Many NGOs face difficulties in setting up a solid research about their impact and the effects of their activities. The fact that many NGOs don't have staff with a research background is the main reason for this. ... NGOs are not motivated to develop their own monitoring system because they are of the opinion that this can only be done well if lots of time and expertise is invested in it. (Staff member, Flemish NGO Federation)

Based on the results of the action research we argue that planning, monitoring, and evaluating the effects of development education activities doesn't necessarily require a sophisticated academic research capability. Instead, we identified the following elements of a PME system that are essential to help organizations learn about their results and that are also practically feasible:

• Clarifying a programme's actor-centred theory of change is an essential step for developing a learning-centred PME system. The spheres of influence concept from the outcome mapping methodology was shown to have great potential for assisting organizations in that respect, as it offers a practical framework that helps identify the actors a programme seeks to influence directly and indirectly and the changes that a programme hopes to see within

them. From the theories of change developed by the cases participating in the action research, two different groups of effects requiring different PME approaches emerged. The first comprised effects related to an organization's capacity development so it is better able to carry out its own development education interventions. The second comprised effects related to changes in knowledge, attitudes, and behaviour of people influenced directly or indirectly by the development education intervention. Clarifying an actorcentred approach can therefore help organizations to develop 'some clarity about its own approach and theoretical basis' (Bourn, 2011: 26). This can help them in turn to determine what is feasible and possible in terms of PME. In the context of the cases discussed in this article, outcome mapping was seen as helpful for monitoring change related to capacity development, while most significant change and scoring tools were shown to have the potential to help those in the programmes learn about changes in knowledge, attitudes, and behaviour. However, due to the pilots' limited scale, evidence of learning about a programme's effects using these tools remains limited and needs to be explored further in future research.

- The action research also showed that data collection about a programme's effects will not suffice. Once the data have been collected they need to be analysed, made sense of, and the lessons used to improve the programme and provide feedback to various stakeholders within it. Making the necessary space for collective reflection can strengthen this sense-making process. Also, providing the opportunity for genuine participation in the PME process can help ensure the lessons learned are indeed used to improve practice. Making the space for collective learning also helps to bring in different perspectives that contribute to deeper insights. Analysis of the most significant change stories in VLIR-UOS' student scholarship programme, and the collective reflections on the scores given for changes in knowledge, attitudes, and behaviour in Trias' partnership programme, highlighted that such a process is essential for learning. The fact that the piloted PME approaches did not use predefined SMART indicators but allowed organizations to capture and learn from unexpected change was also shown to contribute to the learning process.
- Good PME practice is not only about choosing and implementing the right approach or tools. A minimum requirement is for people to be genuinely interested in learning with their colleagues or programme stakeholders about the effects of their programme. Such an interest can help provide the energy and leadership to explore and adapt PME tools, to create the necessary space for PME, and to motivate colleagues and even target groups to become actively

involved in PME activities. In all the action research cases that reached some level of success in monitoring their effects, the programme coordinators provided the necessary leadership for strengthening PME processes within their respective interventions. The challenge is therefore not only about finding the right PME tools and approaches, but about how we can strengthen a learning culture in our programmes and organizations so that there is the necessary space to explore and implement such approaches.

A final aspect is the skill to see the challenges posed by PME as possible sources for learning and improvement. The various cases evidenced this by reformulating the specific PME challenges they had also identified into research questions which were then explored in the action research process. Following that, new PME approaches were piloted, giving rise to a more systematic reflection on their implementation which led subsequently to practice being adjusted and improved. We believe there is a great need to stimulate and support such forms of experimentation with alternative approaches and methods from different sectors outside the field of development education. Many promising approaches for PME have been developed and implemented in various research disciplines which development educators can explore. Examples include evaluation techniques used in experience-based learning (Laevers et al., 2010) or the use of Sensemaker in the private and international development sectors which allows trends in how learners signify their own micro-narratives about the effects of specific programmes to be visualized (Deprez et al., 2012).

While the elements described above emerged from the action research cases, many challenges still remain. The various cases clearly show that time, resources, and PME capacity remain limiting factors for sustaining PME practice and for involving various stakeholders in the PME process. Also, many questions remain about data collection, data analysis, sense making, and how valid and trustworthy the monitoring information is. This paper hasn't intended to answer or explore all such questions but rather to offer a step to help development education practitioners and researchers explore the potential of alternative PME approaches that can help organizations respond to a growing emphasis on results by reorienting their PME practice away from a traditional technocratic and functional form of results-based management towards results-based learning.

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Note

1 PULSE (www.pulse-oplatform.com/) is a multi-disciplinary research platform that carried out research around development education and public support for development cooperation from 2009 to 2013.

References

Bakewell, O. and Garbutt, A. (2005) 'The use and abuse of the logical framework approach'. Stockholm: SIDA. Online. www.eldis.org/vfile/upload/1/document/0803/ID22810.pdf

Biggs, S. and Smith, S. (2003) A paradox of learning in project cycle management and the role of organizational culture. *World Development*, 31 (10), 1743–57.

Bourn, D. (2011) 'Discourses and practices around development education: From learning about development to critical global pedagogy'. *Policy and Practice: A Development Education Review*, 13, 11–29. Online. www. developmenteducationreview.com/issue13-focus1

Bourn, D. and Hunt, F. (2011) 'Global dimensions in secondary schools'. Online. www.ioe.ac.uk/ GlobalDimensionInSecondarySchools.pdf

Bracken, M. and Bryan, A. (2011) 'The reflective practitioner model as a means of evaluating development education practice: Post-primary teachers' self-reflections on "doing" development education.' *Policy and Practice: A Development Education Review*, 11, 22–41. Online. www.developmenteducationreview.com/issue11-focus2

Brydon-Miller, M., Greenwood, D., and Maguire, P. (2003) 'Why action research?' *Action Research*, 1 (1), 9–28. Crawford, L. and Pollack, J. (2004) 'Hard and soft projects: A framework for analysis'. *International Journal of Project Management*, 22, 645–53.

Crawford, P. (2004) 'Aiding Aid: A monitoring and evaluation framework to enhance international aid effectiveness'. PhD thesis, University of Technology, Sydney.

Crawford, P., Swete, D., Mitchell, C., and Bryce, P. (2005) 'Aristotle and Plato at it again: Philosophical divergence within international aid project design and monitoring & evaluation'. Online. www.outcomemapping. ca/resource/resource.php?id=195

Davies, R. (2005) 'Scale, complexity, and the representation of theories of change part II'. *Evaluation*, 11 (2), 133–49.

Davies, R. and Dart, J. (2005) 'The Most Significant Change (MSC) Technique: A guide to its use.' Online. www.mande.co.uk/docs/MSCGuide.pdf

Deprez, S., Huyghe, C., and Van Gool Maldonado, C. (2012) 'Using sensemaker to measure, learn and communicate about smallholder farmer inclusion'. Leuven: VECO. Online. http://betterevaluation.org/resources/example/sensemaker_veco

Develtere, P. (2003) Het draagvlak voor duurzame ontwikkeling: Wat het is en zou kunnen zijn [Public Support for Sustainable Development: What is it and what could it be]. Antwerp: De Boeck.

Dick, B. (2002) 'Action research: Action and research'. Online. www.scu.edu.au/schools/gcm/ar/arp/aandr.html Dominy, G., Goel, R., Larkins, S., and Pring, H. (2011) 'Review of using aid funds in the UK to promote awareness of global poverty'. Report prepared for DFID. Online. www.dfid.gov.uk/Documents/funding/revusing-fnds-prom-aware-glob-pov.pdf

Earl, S., Carden, F., and Smutylo, T. (2001) *Outcome Mapping: Building learning and reflection into development programs*. Ottawa: International Development Research Centre (IDRC).

Gasper, D. (1997) Logical Frameworks: A critical assessment. Managerial theory, pluralistic practice. Working paper series No. 264. The Hague: Institute of Social Studies.

Guijt, I. (2008) Seeking Surprise: Rethinking monitoring for collective learning in rural resource management. Published doctoral dissertation, Wageningen University.

Hughes, I., Ndonko, F., Ouedraogo, B., Ngum, J., and Popp, D. (2004) 'International Education in Action Research Manual: The Bamenda Model'. Online. www.scribd.com/doc/15494711/International-Education-for-Action-Research-The-Bamenda-Model

Hill, S. (2010) A VVOB Zimbabwe Quality Education and Vulnerability Programme Learning History on Integrating Outcome Mapping into our Planning, Monitoring and Evaluation System. The Hague: PSO. Online. http://pme.global-connections.nl/publications/learning-history-vvob

Hudson, D. and Van Heerde, J. (2012) "A mile wide and an inch deep": Surveys of public attitudes towards development aid. *International Journal of Development Education and Global Learning*, 4 (1), 5–23.

Hunt, F. (2013) 'Global Learning in Primary Schools in England: Practices and impacts'. Research paper No. 9. Development Education Research Centre. Online. www.ioe.ac.uk/GlobalLearningInPrimarySchools.pdf

IOB (Inspection Service Development Cooperation and Policy Evaluation) (2009) 'IOB Evaluaties: Draagvlakonderzoek, evalueerbaarheid en resultaten'. [IOB Evaluations: Research into public support, evaluability and results]. Report No. 322. The Hague: Ministry of Foreign Affairs. Online. www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2009/04/01/iob-draagvlakonderzoek-evalueerbaarheid-en-resultaten. html

James, R. (2009) 'Just do it: Dealing with the dilemmas in monitoring and evaluating capacity building'. Praxis note No. 49. Oxford: INTRAC.

Jones, H. (2011) 'Taking responsibility for complexity: How implementation can achieve results in the face of complex problems'. Working paper No. 330. London: Overseas Development Institute. Online. www.odi.org. uk/resources/download/5275.pdf

Kinsbergen, S. and Schulpen, L. (2009) 'De Werking van Draagvlak: Een nadere analyse van het Nederlandse draagvlak voor internationale samenwerking' [The Mechanism of Public Support: An analysis of the public support for international cooperation in the Netherlands]. Nijmegen: Centre for International Development Issues, Radboud University Nijmegen. Online. www.ru.nl/publish/pages/556819/de_werking_van_draagvlak_s-kinsbergen_en_I_schulpen.pdf

Krause, J. (2010) 'DE Watch'. European Development Education monitoring report. Online. www.deeep.org/dewatch.html

Laevers, F., Buyse, E., Daems, M., Declercq, B., Oomens, C., Silkens, K., and Snoeck, G. (2010) 'Global education in schools'. Impact study report. Online. www.ngo-federatie.be/werken-in-het-zuiden/index. php?option=com_content&view=article&id=11:rapport-impactstudie-scholenwerking-modiale-vorming

Lappalainen, R. (2010) 'The European consensus on development education: From scratch to implementation and monitoring'. *Policy and Practice: A Development Education Review*, 11, 77–83. Online. www. developmenteducationreview.com/issue11-perspectives2

Liddy, A. (2010) 'Editorial'. Policy and Practice: A Development Education Review, 11, 1-6.

Ling, T. (2012) 'Evaluating complex and unfolding interventions in real time'. Evaluation, 18 (1), 79-91.

Mowles, C. (2010) 'Successful or not? Evidence, emergence, and development management'. *Development in Practice*, 20 (7), 757–70.

Nygaard, A. (2009) 'Funding of NGO development education and awareness raising: An experiment in retrospective baseline reflection in the Norwegian context.' *International Journal of Development Education and Global Learning*, 2 (1), 19–30.

OECD (2005) The Paris Declaration on Aid Effectiveness. Paris: OECD.

- (2008) 'Accra Agenda for Action'. Online. http://dx.doi.org/10.1787/9789264098107-en
- (2011) 'Proceedings of the High Level Forum on Aid Effectiveness' Online. www.oecd.org/dac/effectiveness/fourthhighlevelforumonaideffectiveness.htm

OECD/DAC (2009) 'Managing aid: Practices of DAC member countries'. Online. www.oecd.org/dataoecd/58/29/42903202.pdf

Open Forum for CSO Development Effectiveness (2010) 'Istanbul CSO development effectiveness principles'. Online. http://cso-effectiveness.org/IMG/pdf/final_istanbul_cso_development_effectiveness_principles_footnote_december_2010-2.pdf

Pollet, I. (2010) 'Algemene Barometer Draagvlak Ontwikkelingssamenwerking: Enquête naar het draagvlak voor ontwikkelingssamenwerking bij de Belgische bevolking' [General Barometer of Public Support for Development Education: A survey into the support for development cooperation among the Belgian public]. Study report. PULSE research platform. Online. http://pulseonderzoeksplatform.moonfruit.com/publicaties/4538978316

— (2013) 'Algemene Barometer Draagvlak Ontwikkelingssamenwerking: Enquête naar het draagvlak voor ontwikkelingssamenwerking bij de Belgische bevolking' [Barometer of Public Support for International Cooperation and Global Solidarity: A survey into the public support for development education among the general public in Belgium]. Policy paper. PULSE research platform. Online. https://hiva.kuleuven.be/nl/publicaties/publicatie_detail.php?id=3379

Reason, P. and Bradbury, H. (eds) (2001) *Handbook of Action Research: Participative inquiry and practice*. London: Sage.

Rogers, P. (2008) 'Using programme theory to evaluate complicated and complex aspects of interventions'. *Evaluation*, 14 (1), 29–48.

— (2013) 'Rubrics' Online. http://betterevaluation.org/evaluation-options/rubrics

Scheunpflug, A. and McDonnell, I. (2008) 'Building public awareness of development communicators, educators and evaluation'. Policy brief No. 35. Paris: OECD. Online. www.dochas.ie/Shared/Files/7/awareness_MDG.pdf

Smit, M. (2007) 'We are too much in to-do mode: Action research into supporting international NGOs to learn'. Praxis paper No. 16. Online. www.ethiopia-ed.net/images/1517707581.pdf

Stern, E., Stame, N., Mayne, J., Forss, K., Davies, R., and Befani, B. (2012) 'Broadening the range of designs and methods for impact evaluation'. Study report. DFID. Online. http://mande.co.uk/blog/wp-content/uploads/2012/06/2012-Stern-Working-Paper-38-final-April-20121.pdf

Watson, D. (2006) 'Monitoring and Evaluation of Capacity and Capacity Development'. Discussion Paper No. 58B, European Centre for Development Policy Management, Brussels.

Woodhill, J. (2008) 'How institutions evolve, shaping behaviour'. *The Broker*, 10, 4–8. Online. www. thebrokeronline.eu/en/Magazine/articles/Shaping-behaviour