



A deep or surface approach to development – what can learning research teach us?

By Robert Cannon
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The challenge

Education is a central concern in much of the writing on development policy and planning. AusAID, for example, has clearly articulated the importance of education in development in [these words](#) [pdf]:

Promoting opportunities for all is one of the five strategic goals of Australia's aid program... Education is an enabler of development and crucial to helping people overcome poverty. Education makes a significant difference to improving equity, health, empowering women, governance and sustainable development.

Statements about education in development often refer to matters such as poverty, teacher

training, management, equity and buildings. Astonishingly, we see little about learning, an issue of central importance. Just as effective learning is essential in schools, effective learning is the key to the success of many development strategies. Development that has a lasting impact depends on beneficiaries understanding their needs and learning of ways to address these needs independently and on a continuing basis.

The processes of learning are not widely understood in the development community, particularly the evidence about how young adults approach learning and how their context shapes the way that they learn.

The following discussion is based on research in student learning in higher education and studies I have completed in Indonesia. The discussion then links this work to propositions about learning in the context of development programs and projects.

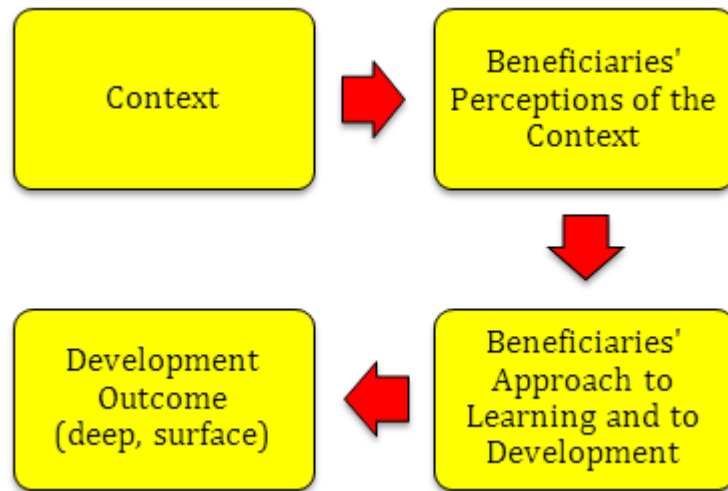
Applying learning research to development [\[1\]](#)

In the 1970's, two Swedish scholars, Ference Marton and Roger Saljo, shifted the attention in learning research towards what students actually do and think in real situations (their original work is available [here](#), an introduction to the research can be found [here](#)). They found that student's perceptions of their context influenced their approach to learning and that their learning could be described in terms of a deceptively simple dichotomy between a deep approach to learning, where the student seeks personal understanding, and a surface approach, where the student focuses on the reproduction of material presented during the course of their studies.

The deep-surface dichotomy has had a profound impact on the way teachers now think about the impact of their teaching on student learning. The research conveys an important message: it invites us to consider education from the student's perspective.

Can we adapt these ideas for a better understanding of development from the beneficiaries (as learners) perspective? I believe we can. So, how can these ideas be applied in development? In development activities it is possible to observe beneficiaries adopting distinctive **approaches to development**. These approaches are strongly influenced by their context as shown in the diagram.

A learning approach to development



The context includes local culture and values, education qualities, community involvement, leadership and policies, in addition to the characteristics of the developer's implementation strategies.

The effect of this **context** is to influence **beneficiaries' perceptions** of the demands of that context and their resulting **approach to development**. In the simplest analysis, beneficiaries may be observed to use one of two broad approaches to development called a **surface approach** or a **deep approach** - the same terms used in learning research.

Beneficiaries using a **surface approach** fulfil the requirements of a development activity by using **learning processes** such as memorising basic information without really understanding it. In some of my work, I have observed beneficiaries to:

- Participate passively in the development activity
- Confuse principles, evidence and strategies
- Reproduce ideas without understanding them. In the workplace, they may reproduce, or even copy a strategy from somewhere, without really understanding the strategy.

The approach of these beneficiaries using a surface approach is to minimally meet formal obligations and to focus on the task. There is poor understanding of the principles and evidence supporting the task and of ways to adapt to new challenges. The links between the principles underpinning the task and the intended development outcomes are poorly understood, if at all.

In the same way that a student's approach to learning will be influenced by their teacher's approach to teaching - and the examinations - the reasons for beneficiaries adopting a

surface approach can be found in the developer's approach to development and in the reward system. Training programs led by poorly prepared trainers, who themselves may not understand what they are teaching and why, may be such an approach. This lack of understanding may occur when cascade-training approaches are used to reach large numbers of beneficiaries. Distortions are created as the training proceeds down the cascade meaning that lower levels miss essential concepts and that the final implementation may be wrong or bear little resemblance to what was intended.



junior secondary student's perception of the difference between a traditional form of teaching, often associated with surface learning, and a new approach, PAKEM. This Indonesian abbreviation translates into English as learning that is active, creative, effective and enjoyable, which encourages deeper approaches to learning.

Receiving this kind of training, the **development outcome** may be superficial recall of basic strategies and an inability to apply the strategies at work. These stakeholders are often *externally motivated* by regulations or the expectations of their supervisors. They see change as being important only because it is imposed from the top and because they may fear the consequences of not doing what authority expects of them.

Stakeholders adopting a **deep approach to development** are motivated by strong values, a genuine interest in the task, a need to understand the principles informing the change as well as the technical material, and to be able to apply new knowledge for the benefit of their organisation. Here, I have observed that their intention is to develop a deep understanding of the new strategy, the evidence supporting it and the understanding necessary to develop adaptations. I suggest that these stakeholders are *intrinsically motivated*. They see change as important because of their values and because of their understanding of the needs of

those for whom they have responsibility.

The surface-deep approaches, and external-internal motivations in development that are proposed in this simple analysis reflect the same principles that now inform changes in learning and teaching in education. This change is from teacher-dominated externally motivated learning driven by exams and fear of failure, towards student-centred, active learning motivated by curiosity, interest, enthusiasm, and understanding.

Towards deep, sustainable educational development

As long as educational developers maintain a top-down approach led by donors and central governments, they will be working against change that should be driven by local needs and initiative, active and continuing learning, and effectiveness. Large-scale projects and 'sector-wide approaches' (SWAPs) in development risk embedding surface approaches by design (a recent [Devpolicy blog](#) provides a helpful review of the concept). Both risk spreading limited development resources widely and thinly at the expense of attention to a more focused 'sector-deepening' approach.

How might deepening be achieved in development? My work in Indonesian education suggests that the following strategies are likely to support deeper approaches: gathering valid data in identifying local conditions and needs and then targeting these, aligning development strategies with government policy, building on earlier development initiatives, investing time – several cycles of training, mentoring, providing feedback and support over years (in contrast to 'one-shot training'), using local expertise, training multiple stakeholders from government and schools together, using a whole-of-school development approach in contrast to selecting only one or two persons for training, and building local and sustainable communities of professional practice. [\[2\]](#)

Deepening strategies are not common in educational development projects. It is my experience that after project completion, very modest, continuing, technical support can lead to sustaining, deepening and disseminating changes from development activities. Unfortunately, governments and donors seem to prefer to move on, to ignore many of the lessons learned and to create new approaches with new problems in new locations with new support staff. [\[3\]](#)

I believe deep learning is an appropriate concept to apply in development. It is a necessary concept for sustainable development. Just as we should not expect students to learn complex behaviours and develop deep understanding from a few formal lectures, neither should we expect complex government organisations, universities, schools and teachers to learn from comparable surface interventions. But this is what has happened in the name of

‘development’. Perhaps this is why achieving deep, sustainable change impacts remains a continuing challenge for us in development.

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[1] Some empirical support for the propositions presented here can be found in Kirby, J.R., Knapper, C.K., Evans, C.J., Carty, A.E. and Gadula, C. (2003). Approaches to learning at work and workplace climate. *International Journal of Training and Development*, 7,1: 1-52.

[2] See: Cannon, R. A., & Hore, T. (1997). The long-term effects of ‘one-shot’ professional development courses: An Indonesian case study. *International Journal for Academic Development*, 2, 35-42; Cannon, R.A. (2001). The impact of training and education in Indonesian aid schemes. *International Journal for Academic Development*, 6, 2, 2001: 109 – 119; Cannon, R.A. and Arlianti, R. (2008). *Review of Education Development Models*, The World Bank, Jakarta. 146p. (Available from the author.)

[3] *Aid and the Maintenance of Infrastructure in the Pacific*, written by [Matthew Dornan](#) on March 29, 2012 for The Development Policy Blog addresses some of the unfortunate outcomes from this approach. (

<https://devpolicy.org/aid-and-the-maintenance-of-infrastructure-in-the-pacific/>)

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