

From Assessment to Action: Lessons from the Development of Theories of Change with the People's Action for Learning Network

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Abstract

In recent years, much attention has been given to extremely poor levels of learning outcomes in low-and lower-middle income countries. Citizen-led assessments have played a vital role in highlighting this “learning crisis.” Having developed these citizen-led assessments, members of the People’s Action for Learning (PAL) Network are now increasingly devising and implementing actions aimed at tackling the learning crisis in different country contexts. This article documents the process we undertook of developing theories of change with PAL Network members across 10 countries to inform their shift from assessment of children’s learning to action aimed at raising learning outcomes. The article highlights, in particular, the importance for theories of change to take account of context in identifying appropriate actions. Based on their country circumstances, the actions identified by PAL Network members vary, for example, from using assessment data to influence national government reform, to more localized activities associated with “teaching at the right level.” For appropriate actions to tackle the learning crisis to be identified and successfully implemented, an important lesson from the PAL Network experience is the need to enable South-to-South learning and adaptation. As such, the article highlights a pressing need for flexible and iterative theories of change that reflect contextual realities.

Keywords

Theory of Change; Citizen-led Assessments; Global South; Learning outcomes

Introduction

The People’s Action for Learning (PAL) Network is a leading South-South collaboration in education. It brings together members working in 14 countries across three continents to assess the basic reading and numeracy competencies of children through household-based, “citizen-led assessments.” Network members’ citizen-led assessments have played a vital role in identifying a “learning crisis” in low-

and lower-middle income countries. Their use of household-based learning assessments provides coverage well beyond that offered by conventional school-based assessments. For example, by including children who are out of school in the learning assessments, these learning assessments provide a robust evidence base on the most vulnerable children globally. Through further adaptations to their learning assessment processes, PAL Network members

have continued to extend the range of children whose learning is acknowledged in educational debates, such as those with disabilities (in Pakistan) and those living in refugee settlements (in Uganda).

By identifying the extent to which children have achieved foundational skills—such as the ability to read a paragraph or divide a three-digit number by a single-digit number—findings from the analysis of learning assessment data have galvanised educational debates within member countries. They have shown, for example, that many children are unable to perform these simple tasks, intended to be achieved after two years in school, even after spending five years in school. In addition to promoting national debate, their methods and findings have also gained traction in global policy fora, as highlighted in the UNESCO Institute for Statistics' Handbook on Measurement of Equity in Education (2018) and The International Commission on Financing Global Education Opportunity (2017), in addition to a range of peer-reviewed academic publications (see, for example: Alcott & Rose 2015, 2016, 2017; Goodnight & Bobde 2018; Jones & Schipper 2015; Jones, Schipper, Ruto & Rajani 2014; Pritchett & Beatty, 2015; Singal et al., 2019).

Building on their vast experience of identifying low levels of learning across a range of contexts, PAL Network members have been developing a variety of actions with the aim of raising learning outcomes. These interventions have been informed directly or indirectly by a theory of change. This article draws on our work with PAL Network members across 10 countries¹ in developing their theories of change for moving from assessment to action more formally, and the implications of this for understanding context-specific reform. The actions included vary across countries, for

example, from using learning assessment data to influence national government reform, to more localized activities associated with changing the pace of the curriculum to ensure children at risk of being left behind are able to learn the basics. As such, the article aims to present an understanding of the pathways from *assessments of to improvements in* learning outcomes in different country contexts. As the article discusses, for appropriate actions to tackle the learning crisis to be identified and successfully implemented, an important lesson from the PAL Network experience is the need to enable South-to-South learning and adaptation. This highlights a pressing need for flexible and iterative theories of change that reflect contextual realities.

The paper is organized as follows. Section 2 presents a review of theories of change with the aim of understanding the concept within the academic literature. Section 3 introduces our methodology for developing theories of change with PAL Network members, which drew on participatory approaches to achieve a common understanding for developing a framework to map how assessments of learning could lead to improvement in learning. Section 4 presents the approach to developing theories of change across PAL Network members, and the final section concludes with the implications of the findings for the broader field.

Understanding Theories of Change

Theory of Change can be defined as “a systematic and cumulative study of the links between activities, outcomes and context of the initiative” (Fulbright-Anderson, Kubisch, & Connell, 1998, p.16). In this definition, the central argument of a theory of change is that it carries the underlying foundations or theory in which programs or policies operate that should lead to the desired changes in outcomes (Chen,

1990). In this sense, articulating the underlying theory, as well as the assumptions and any contextual requirements or “enablers,” paves the way for more effective program design, evaluation, and implementation.

There are three main types of theory of change (Vogel, 2012). First, a policy theory of change focuses on identifying a broad conceptual framework which can be used to focus in on specific activities in a specific context. Second, an implementing agency theory of change is used to support decision-making on project implementation. Finally, a causal map for evaluators focuses more specifically on issues of effectiveness. While all three types of theory of change differ in terms of their focus, the process of developing a theory of change is essentially the same. This involves working backwards from the final outcome, identification of activities (mechanisms) given a particular situation (context). All theories of change should highlight the assumptions made for the program or policy to change outcomes or the barriers that may stand in the way of the program achieving the expected benefits.

There is a debate in the literature as to whether theories of change are actually applications of the advancement of academic theory or a program management tool. Historically, the term theory of change was developed in the 1960s, with its origins in program theory. However, in recent years, with the increasing pressure to demonstrate impact and recognition of the complexities and ambiguities of international development work, theories of change have become increasingly associated with the use of log frames as part of program management. Originally, log frames were intended to summarize an in-depth discussion about project goals and aims. However, as they have been incorporated into standard practice, they have arguably become used less as a tool for critical reflection and

increasingly compiled in order to secure funding. As Vogel states, “Completing a log-frame is now often a mandatory funding requirement, with standardized templates that allow little flexibility. Because they are used for management and measurement, log-frames become enshrined into results-based contracts which are then administratively difficult to change” (Vogel, 2012, p.19). As such, a theory of change is seen as a response to the need to return to the more robust analysis that the log frame was originally designed to elicit. However, as theories of change have been increasingly adopted as a requirement alongside the development of log frames, they have received similar critiques to those levelled towards log frames (Vogel, 2012).

An important critique of the development of theories of change for program management is that they have tended to adopt a more standardized approach. This ignores the way in which contextual realities might influence pathways to change, which may be central to uncovering the circumstances in which, and the reasons why, a particular policy or program works.

In order to provide further clarity on theories of change, it is important to acknowledge that there are two key questions regarding impact. First, a theory of change is used to determine how successful a policy or theory is in achieving its goals, what Weiss (1998) terms “implementation theory.” In addition, they provide an assessment of whether what the program set out to do was the correct response in that context, also termed “program theory” (Weiss, 1998). It is the combination of these two aspects that separates theories of change from traditional methods-based approaches or log frames.

There is a plethora of terms associated with the use of theories of change. In this paper, we take the approach of Pawson and Tilley (1997)

and focus on the contexts, mechanisms, and outcomes of the theory of change. For this purpose, context refers to the location as well as its associated norms and values. Mechanisms are defined as the choices and capacities that lead to regular patterns of behavior. Finally, outcomes are defined as the results of a program, whether they are intended or not.

Methodology

Given our approach of working in collaboration with PAL Network members to support the development of their actions, this study's research design bears some hallmarks of participatory approaches (Baum et al., 2006; Wadsworth, 2005). We sought to be flexible in integrating PAL Network members' divergent perspectives throughout an iterative process in our development of the theory of change model in response to their ongoing feedback (Cornwall & Jewkes, 1995). The analysis in this article is, therefore, based on a range of activities and points of engagement with PAL Network members, and combines documentary analysis, interviews, feedback meetings, and participation in PAL Network events. These took place sequentially as follows.

First, PAL Network members provided documentation about each of their organization's relevant activities, including theories of change as they had been developed so far. Further documents were obtained by the research team from published and unpublished literature. We received initial theories of change for 10 of the 14 PAL Network organizations. These theories of change were provided either as a narrative or in diagrams, and varied significantly in terms of the approach used, and amount of detail provided. In order to grasp a better understanding of *why* PAL Network members differed in their approaches to Pathways to Impact, members of the research team held two individual interviews each with

each of the PAL Network's country members, as well as an interview with the PAL Network Secretariat.

The first interview took place when members of the research team attended the PAL Network's annual meeting in Mexico in March 2017. For the interviews, consent was requested from interviewees, recognizing that it was implausible to maintain anonymity given the uniqueness of each of the PAL Network member's work. During the workshop, interviewers started by asking the background of the work that each of the organizations was doing prior to engaging with citizen-led assessments and the reasons that led the organization to set up its citizen-led assessment. Interviewees were asked to reflect on their ultimate goal in conducting these learning assessments, and the steps and processes necessary to achieve their goal. Interviews also focused on specific actions or interventions undertaken by the organization to achieve its aims and the challenges faced. The research team also asked direct questions on the theory of change for the organization, in particular, whether the respondent was familiar with a theory of change approach, the reasons for developing a theory of change, their purpose and usefulness, and if there were any developments in their work that would mean that the theories of change submitted to the research team were no longer valid.

Interviews were transcribed and examined together with each organization's theory of change, with the aim of identifying similarities and variations and of proposing a common framework to better understand the impact pathways between *assessments of* and *improvements in* learning outcomes. Building on this, we produced a generic framework which is depicted in **Figure 1** (see **Appendix**). This generic framework contains all the common intermediate outcomes through which PAL

Network members move from collection of learning assessment data to identifying actions, with the ultimate goal of raising learning outcomes for children. A draft of this framework was shared with PAL network members for their adaptations and, ultimately, their approval.

The proposed generic framework contained a sequential progression from the initial need to generate the data, collect citizen-led assessment data, and use the data to provide evidence (*establishing the scale of the problem*) regarding the given country's learning levels. Then, as suggested by many PAL Network members, this should *Stimulate debate on solutions*, which then would lead into *Implementation of solutions* aimed at raising learning outcomes.

Our generic framework provided the basic elements for building a theory of change (Pawson & Tilley, 1997). First, it included the initial norms and values which guided the work of the PAL Network members, the reasons for identifying relevant actions, and the actors participating in a given stage. This is the context element of the theory of change. It also included intermediate and final outcomes. Intermediate outcomes included, for example, the mobilization of citizens, the generation of evidence, or the stimulation of debate for establishing solutions. These were all part of the mechanisms to reach the final outcome: namely, to raise learning outcomes.

PAL Network members were given this generic framework together with a more detailed example of a country theory of change, depicting the movement between the intermediate outcomes of *Generating citizen-led data* on learning to using these data for *Establishing the scale of the problem* with respect to the extent to which children are learning the basics (see Figure 2). This theory of change aimed to inform the identification of relevant actions in each PAL Network member country that would potentially

have a direct impact on the ultimate goal of *Raising learning outcomes*. As part of this process, PAL Network members identified the actions, the actors and, importantly, the assumptions made between stages which are central for building a theory of change. Actions identified by members included, for example, ones associated with reforming the teaching and learning process (such as in Mexico and Pakistan), and aimed at promoting community engagement to mobilize change (such as in Senegal). See **Figure 2** in the **Appendix** for more details.

PAL Network members were requested to provide feedback on whether the proposed stages of the generic framework appropriately reflected how their country team envisaged the process through which the generation of learning assessment data would lead to action for raising learning outcomes. They were also asked to consider how their country's theory of change would look in comparison to the example provided in Figure 2, and if there were any adaptations to be made. On the basis of this, we redrafted each country member's own theory of change in line with the generic framework, making adaptations where requested.

Further insights into how the PAL Network members perceived their work and the underlying theory of change that could explain their activities as a Network were obtained during the second workshop, which took place in Uganda in May 2018. This workshop was attended by the PAL Network Secretariat and representatives from each of the 10 participating PAL Network countries as well as the research team. Ahead of this meeting, each country member was provided with a revision of their individual theory of change, for which they then provided feedback. The appendix provides examples of narratives associated with individual theories of change that resulted from

this process for four country members: Mexico, Nigeria, Pakistan, Senegal.

The workshop then used participatory approaches to engage with all PAL Network members, shifting from each organization's individual theory of change to a common understanding of the underlying principles that make the PAL Network work for a common aim. The key topics for discussion were selected by the research team based on the feedback already received by PAL Network members from the generic theory of change. Key salient areas included (a) how and when to collaborate with other community and civil society organizations; (b) how to align to local, regional, and national government priorities, establishing the main principles that bring different member organizations together to work as a Network; and (c) commonalities, strengths, and actions that drive the PAL Network towards the goal of improving learning in the Global South.

Information from the Uganda workshop enabled us to develop further ideas in terms of how PAL Network members use the assessment data to choose their actions, and the extent of similarities and differences across contexts. The next section presents the results on the proposed theory of change for the PAL Network.

Assessment for Action: A Theory of Change

In the initial phase of our work, through the interviews, workshops, and review of existing documentation, it was clear that the large-scale citizen-led assessments carried out by PAL Network members provided an essential foundation for identifying widespread low levels of learning that required future action. This foundation is created through the process of data collection and analysis (involving citizens and civil society organizations), and it is also created from the findings themselves. In a given country, initiating a citizen-led assessment is an

organic, within-country process, driven by a participating organization's recognition of the need for data on children's learning. Citizens and other key actors, such as government and civil-society organizations, then mobilize to generate the data. These groups are encouraged to discuss the analyzed data, which serves to establish the scale of the problem faced in children's learning outcomes. As such, the process serves two purposes: First, it provides robust evidence on the need for action in education; and, second, through the shared act of developing and conducting the citizen-led assessment, it also builds engagement for addressing the challenge.

Figure 3 illustrates the common stages through which PAL Network members work towards assessment for action (see **Appendix**). Given the diversity of country contexts across the Global South, PAL Network members differ in the specifics of their work at each stage from assessment to action and have made adaptations in response to their own context's constraints and opportunities. For example, Bèékunko in Mali found that focusing on story-telling methods greatly improved its literacy activities; TPC Mozambique has prioritized grassroots community meetings to distribute and discuss findings whereas many other countries have focused more on dissemination with state and national government; and LEARNigeria sought to incorporate government agencies in the development of its assessment tools to strengthen subsequent government support for its action interventions.

Regarding the Network at large though, five key stages are apparent in its work from assessment for action:

(1) Initiate: Identify the need for data. In recent years, more children are attending primary school across the world. However, there has been very little information on whether or not they are learning. This lack of data has led to the

invisibility of millions of children attending school without acquiring the foundational skills that provide the basis for all future learning (UNESCO, 2014). The majority of existing approaches to obtain learning data at national and global level focuses on standardized school-based assessments. These are typically pen and paper assessments, which assume that a child is already able to read and write, and only undertaken with children who are in school, thus omitting the millions of children who remain out of school or attend irregularly. This means that school-based assessments suffer from selection bias and fail to cater to the realities of many children in these countries.

To address this, the first step in the PAL Network's Theory of Change identifies the need to collect data that captures the learning outcomes of *all* children through the use of household-based surveys.² In order to identify which children are not learning the basics, the data collected includes information on background characteristics of children such as gender, wealth, where the child lives (whether in an urban or rural area) and, in recent rounds in some countries, disability.

(2) Mobilize: Generate citizen-led data. The majority of existing assessments are administered in schools by teachers, trained enumerators, or specialized education professionals. In addition to ignoring out-of-school children, this has also excluded parents, families, and community members from assessment processes. A key aspect of PAL Network assessments is to democratize understanding of the state of education among citizens, and so involve them in data collection, analysis, and dissemination processes. This leads to the second step in PAL Network's Theory of Change. This is based on the assumption across PAL Network members that, if citizens are not informed about the scale of the problem based on robust, accessible evidence,

then they cannot support the process of identifying and implementing solutions. PAL Network members have therefore identified citizen "volunteers" who are provided with training to collect robust data, at large scale and low cost.

(3) Analyze: Establish the nature of the problem. Establishing the scale and nature of low levels of learning is a key step for identifying where action needs to be taken to support those children who are furthest behind. To address this, PAL Network members produce analysis of assessment data in ways that are easy to communicate and use this to engage key stakeholders—including government, civil society, teachers, and local communities. However, provision of information alone is unlikely to lead to improve learning outcomes (Banerjee et al., 2008). For this reason, PAL Network members then move to the next stage in the process.

(4) Plan: Design solutions. PAL Network members have used their learning assessment data to identify potential "solutions" for raising learning outcomes in different ways. In some PAL Network countries, conducting the learning assessment is the first step in the journey towards improving learning outcomes. In other countries, the learning assessment is a stand-alone process. And in others, they are one of several parallel strategies to encourage citizen engagement with learning outcomes. Wherever member countries fit on this continuum of assessment to action, there is broad agreement across the membership that data on learning outcomes needs to be robust, inclusive of all children, simple to understand, and easy to act upon—whether it is their own organization or others who are taking the actions.

This relates to the fourth step in PAL Network's theory of change. Solutions are expected to be based on relevant and recent data; they also need to be contextually-relevant

and appropriate, and respond to the immediate learning needs of the child (based on where they have reached in their learning, not where they expected to be according to the school curriculum). Finally, solutions should be scalable and sustainable. In addition, the inclusive nature of the assessment process is anticipated to help broaden the scope of who is able to have a voice in identifying appropriate interventions aimed at raising learning outcomes.

(5) Act: Implement solutions. The final step in the PAL Network's Theory of Change is the implementation of assessment-to-action programs. The ultimate change envisaged through the Theory of Change is the acquisition and improvement of foundational learning skills for all children, providing them with the building blocks for future learning. But an important aspect of the implementation of solutions is that each Network member tailors their intervention program according to the opportunities and constraints of their specific context. This is the case even for interventions which seem to be similar in their approach, as for example with "Teaching at the Right Level, an intervention which entails grouping children according to current ability and using pedagogical approaches tailor to each group's level. This intervention has been implemented in India, Pakistan, Mexico and Senegal (and other PAL Network members). Important differences exist in terms of how each of these Network members work with stakeholder groups in their countries to deliver Teaching at the Right Level, as in each context there are different stakeholders with different sets of skills and motivations, as well as sources of funding, to be able to implement actions. There are also important differences in the adaptation of Teaching at the Right Level, and the use of local resources which vary by country (see Alcott et al., 2018 for more details).

Another difference is in the scale at which these interventions are implemented in each country, as some interventions reach national coverage (e.g., in India and Pakistan), while others are operating in specific regions or provinces (e.g., in Senegal and Mexico). For the development of an in-depth theory of change, these factors need to be taken into account.

(6) Monitoring, Evaluation, Learning and Sharing: Although there is a tendency for theories of change to follow a linear pathway, the development of learning and sharing among PAL Network members highlights the importance of a cyclical process. The dynamic adaptive model of moving from assessment to action implies the need for a flexible and adaptive theory of change. Many of the PAL Network members have therefore established processes for Monitoring, Evaluation (both external and internal), Learning and, importantly, Sharing among themselves the success and challenges of implementing interventions. For these purposes, some PAL Network members collect baseline data, periodically monitor learning outcomes throughout the implementation of the program, and collect data at the end of the program to identify the extent of learning gains over time. Such data are used to provide iterative improvements throughout the assessment and action processes, thus helping improve the efficacy of the Network's assessment for action work over time.

For example, monitoring and evaluation of interventions in India (such as Read India or Teacher Training programs) have showed significant learning improvements in reading and basic arithmetic for children (Banerji & Chavan, 2016). Community-based activity groups in libraries in India and remedial literacy and numeracy camps in Pakistan have contributed in creating learning environments in the communities that encourage children's

sustained learning. Additionally, measurement of learning and citizen mobilization has been shown to be an effective way to encourage communities and volunteers to understand a problem and participate in actions to solve it. The learning from these actions has been used among PAL Network members for the design of actions in other member countries, as well as for informing the global evidence-base on what works to raise learning outcomes.

Discussion and Conclusion

Citizen-led assessments developed by PAL Network members have played a vital role in highlighting the extremely poor levels of learning in many low and lower-middle income countries, particularly for children from disadvantaged backgrounds. Highlighting the extent of the problem is not enough to combat this “learning crisis” and to move countries towards the achievement of learning for all children. Clearly aware of this situation, members of the PAL Network have been increasingly devising and implementing actions aimed at tackling the learning crisis in their own countries, sharing successful experiences for what works and under which circumstances and supporting other members towards the implementation of context specific actions. Through our work in collaboration with PAL Network members, we developed more formal theories of change, identifying similarities and differences in their approaches from moving from assessment to action, and implications for understanding context-specific interventions.

As a starting point, all the countries’ theories of change share a common desired outcome of raising learning outcomes. Similarly, a common starting point for their engagement is the desire for robust evidence on learning as a basis for action in education, identified in collaboration with citizens. The assumption is that, unless citizens understand and are

informed about the scale of the problem based on robust data and accessible analysis, they will face difficulties in identifying relevant solutions.

While there are these similarities in the beginning and end points of the theory of change, the process and mechanisms through which these are reached varies, as actions are planned in consultation with local stakeholders and adapted to context. Despite these variations, an important aspect of the theory of change for PAL network members is ongoing sharing of experiences among themselves, allowing for feedback loops and adaptations in the process.

An important question remains whether the variations in actions are due to a priori analysis of the problem and solution through the development of a theory of change, or post hoc development of a theory of change more formally (as in many cases). Our analysis suggests that, even where formal theories of change have not been developed in advance, they are usually implicitly based on one. So the question arises of whether it ultimately matters whether a country has developed an intricate theory of change in advance? Having an overarching (relatively simple) theory of change, such as the one identified in this paper, is beneficial, but flexibility and ongoing adaptation of this is vital. We therefore conclude that there is a pressing need for greater recognition that theories of change need to be seen as flexible and iterative tools, allowing for ongoing reflection of contextual realities and sharing of experience in other relevant contexts.

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Notes

¹ The organizations and countries included are ASER (Annual Status of Education Report) Centre (India), ASER Pakistan, Bèékunko (Mali), Jangandoo (Senegal), LEARNigeria, MIA (Mexico), TPC Mozambique, Uwezo (Kenya, Tanzania, and Uganda).

² Children living in nomadic or travelling families, displaced or refugee children, children in care institutions and children's homes, children attending boarding schools, and children in hospital may not be included in the sample.

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Appendix

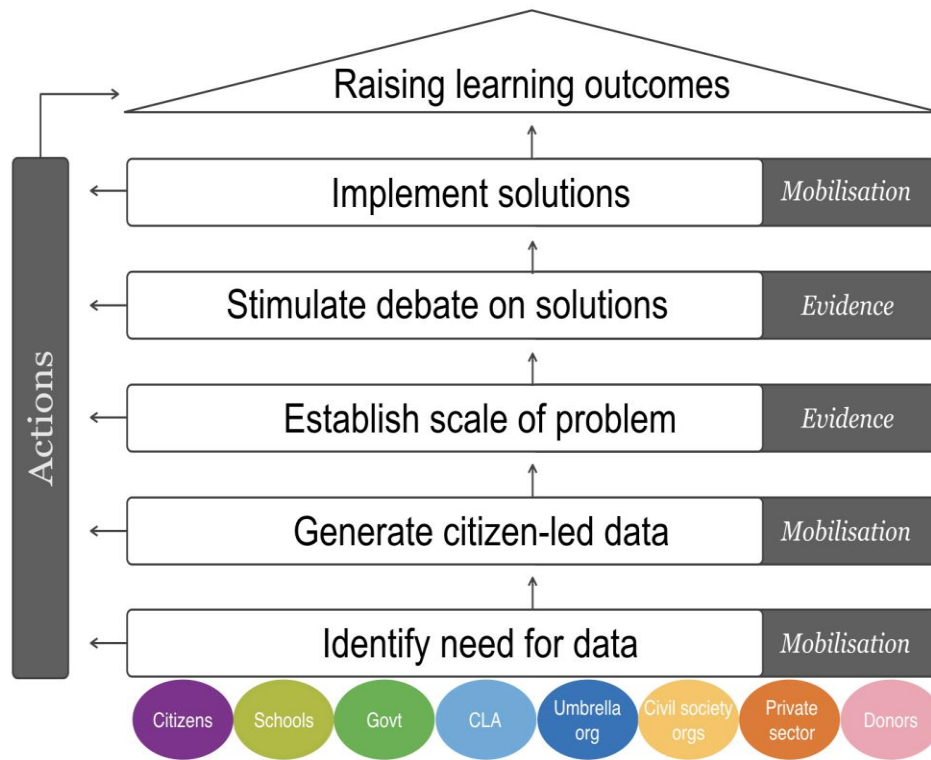


Figure 1: Common stages between assessment and action

Notes: CLA refers to the organization carrying out the Citizen Led Assessment. Umbrella Organization is the parent organization for the CLA.

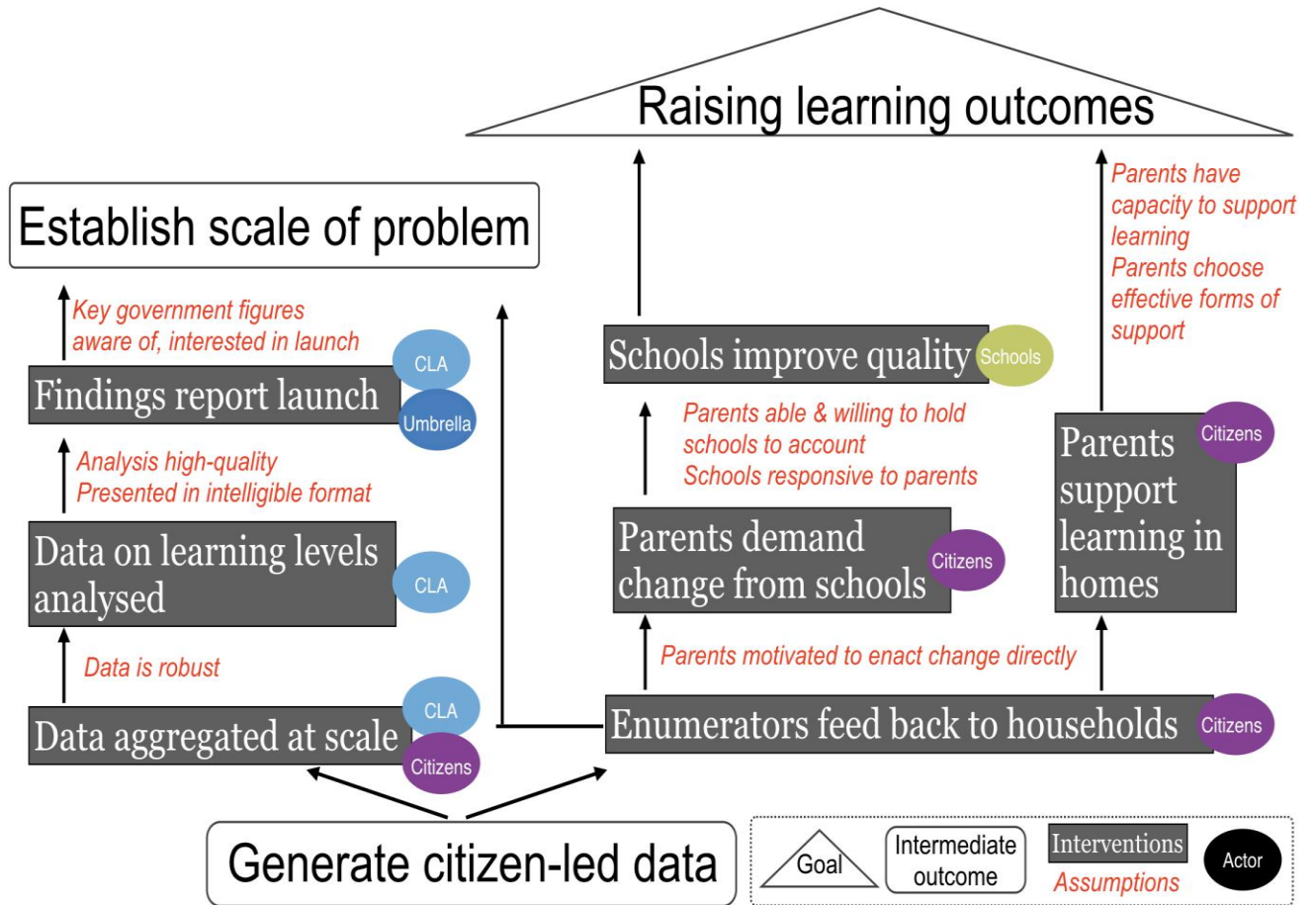


Figure 2: A sample inter-stage theory of change

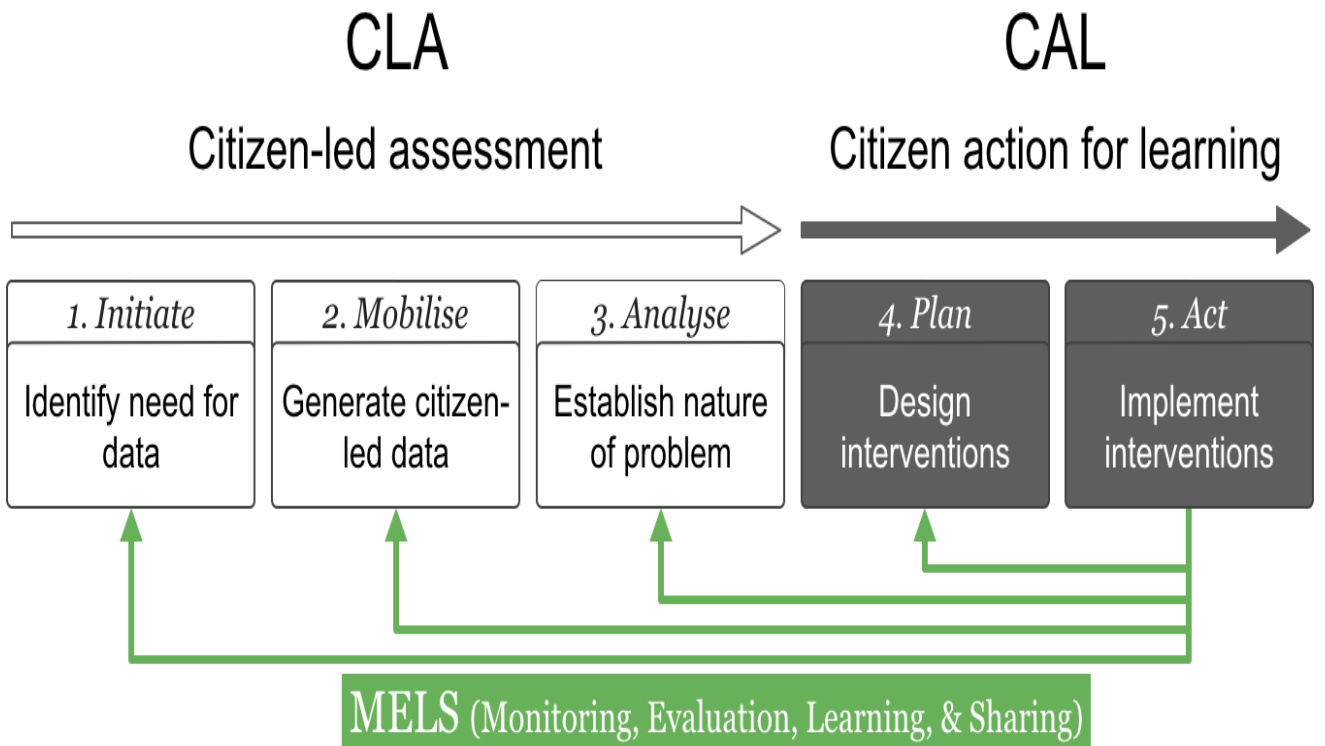


Figure 3: A theory of change depicting the PAL Network's work in assessment for action