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# **Multi-Sector Collaboration for Capacity Building in Developing Countries: A Context for Theorizing Transformative Learning at a Systems Level**

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**Keywords:** Systems transformation, collaborative learning, capacity building

**Abstract:** Multi-sector collaboration (MSC) offers a means to transform agricultural education and training (AET) capacity in developing countries. Drawing upon transformative learning theory and adult education concepts, this paper describes a theoretical lens to understand and advance adult learning through MSC to produce a more coordinated and sustainable workforce.

The world faces challenges that require solutions far beyond individual sectors and necessitates combined efforts from multiple stakeholders. Global hunger, which kills more people annually than AIDS, malaria, and tuberculosis combined (FAO, 2012), represents one of these challenges. Improved education and training in multiple sectors of the food system is a necessary prerequisite for addressing global hunger (Maguire, 2012). Agricultural education and training (AET) systems that span multiple educational contexts are currently insufficient to train qualified workers for an agricultural workforce in many developing countries (Maguire, 2012). In such contexts, AET is comprised of several sectors, including government, education (formal and informal), donors, and private industry. Limited collaboration across sectors is frequently cited as a primary complicating factor in building capacity within AET (World Bank, 2007). Reforms, typically based in individual sectors, have not produced the holistic changes in AET necessary to reach national development priorities. A systems transformation of AET is required to produce a coordinated and sustainable workforce.

To accomplish this transformation, multiple sectors will need to unite their efforts to prepare the array of human talent needed to improve food security. Recent scholarship indicates a rising belief that interorganizational networks, such as multi-sector collaboration (MSC), are necessary to address complex, systemic challenges such as global hunger (Popp, MacKean, Casebeer, Milward, & Lindstrom, 2013). Yet there are many unknowns with respect to how MSC operates within AET, the learning that occurs, and its transformative potential. In this paper, we argue that systems level transformation is dependent upon multiple levels of learning occurring within and across numerous sectors. We propose that the nature of change inherent in MSC within developing countries can be illuminated through the use of a transformative analytic framework derived from adult learning research and theory.

## **Multi-Sector Collaboration: An Adult Education Phenomenon**

We define multi-sector collaboration (MSC) as stakeholders from different sectors functioning together to achieve common goals in which they all have a vested interest. Arguably, MSC is a much more complicated phenomenon but, given our limited space and scope, we will only briefly contextualize MSC through systems thinking to aid in the development of our argument. Given the interconnectivity of the modern age, it is no longer possible to view

complex problems (societal or otherwise) in an isolated manner (Meadows, 2008; Senge, 1990). This realization has led many to argue for the need to solve complicated problems through interorganizational collaborative strategies, since these problems are too large for a single institution to address (Popp et al., 2013). Complex issues, such as improving AET, require a systems perspective which analyzes how individual parts interact, align, or are in conflict, and progress towards mutual or individualistic goals. MSC represents a process that empowers various sectors of the system into collaborative change agents. MSC is a systems change methodology, since it replaces uncoordinated solutions for those that acknowledge and rely upon the interconnected nature of dynamic systems.

This paper argues that individual adults are the foundational building blocks of MSC, since they make up groups, organizations, and sectors within the larger system dynamic. Given the importance of individuals, we argue for the application of adult learning theory to enhance understanding of learning within and across sectors. This is not to say that systems-level learning is a mere sum of individual learning; organizational and interorganizational learning are much too complex for this reductionist logic. However, individual adults are a learning nexus of MSC, since individuals within sectors will need to transform their problem-solving approach towards more collaborative means in order to create a critical mass within sectors to adopt MSC practices. Thus, this paper argues for a conceptual approach for studying multi-sector collaborations via the rich analytic tools provided by adult education scholarship.

### **Transformative Learning: An Analytic Lens for Multi-Sector Collaboration**

Theories of individual learning represent an important set of lenses to understand learning at the multi-sector and systems levels. The particular theories and concepts used to foster this understanding need to illuminate the transformative learning processes that occur within and across individual, group, network, and system levels of MSC. To effectively address the threats to global food security through education and training, such as climate change, population growth, land use, and urbanization, transformative change will be required. As Peter Senge suggests in the forward to Scharmer's (2009) text on U theory, "the predominant trends that have shaped global industrial development cannot continue" (p. xiii). Trends that threaten food security in developing countries represent habitual ways of being, thinking, and acting on a large scale and have become integrated into social structures. According to Senge, "Achieving the changes needed means nothing less than 'creating the world anew,' based on a radically different view of our capacity" to be and act within the world (in Scharmer, 2009, p. xiii). Fostering capacity building in AET through a multi-sector systems perspective involves a kind of learning that transforms the ways we, as individuals and as collectives, come to see, understand and enact our being in the world. As Scharmer makes clear, this process of change represents forms of learning that are multilayered and are simultaneously rational (Mezirow, 1991), extra-rational (Boyd, 1991), and emancipatory (Freire, 2000). The change process, understood through the lens of transformative learning, integrated into a multi-sector systems approach to capacity building in AET, stands in contrast to historically uncoordinated reforms.

There are several key theoretical ideas from the literature on adult learning that serve as conceptual "locations" within MSC for attending to and entering into the process of transformative learning. These ideas include (a) the influence of context on how stakeholders come to make sense of the multi-sector collaborative process; (b) the role of prior experiences in shaping the perspectives used to interpret the process; (c) the extent to which individual stakeholders assume responsibility for and engage in the process of learning and change; and (d)

the influence of situational and dispositional factors on stakeholders' ability to fully enter into the learning and change process.

MSC processes involve representatives from diverse sectors. Each sector reflects the influence of particular social, cultural, and economic contexts, with implicit power dynamics. These contexts serve to shape frames of reference, which often reflect what is held to be important within that sector and how best to help realize this importance within the broader society. The beliefs, assumptions, and values that comprise these perspectives often reflect sharply differing ways of learning, thinking about, and enacting that which is judged to be important to any given sector. In addition, context also reveals how learning occurs differently in varying contexts. The learning that occurs within contexts across the different sectors may also reflect differing emphases on informal as well as formal learning (Merriam, Caffarella, & Baumgartner, 2007), emotional and spiritual dimensions (Dirkx, 2001), and non-Western ways of knowing (Merriam et al., 2007). The context in which sector representatives live will dramatically affect how, what, and when they learn. MSC provides a powerful opportunity for sector representatives to name, reflect on and question the assumptions that have come to shape and inform their understanding of learning and change.

Experience both codifies and facilitates learning that occurs within the various contexts in which sector representatives live and work. Prior learning and knowledge is often cognitively and emotionally "packaged" within particular experiences and are often evoked through a person's interactions with the current context or environment (Boud & Walker, 1991; Kolb, 1984; Lindeman, 1961). For example, how one has come to understand and work with people or groups who are different from one's own situation may heavily influence one's participation in multi-sector processes. The lessons learned from these prior experiences will shape the ways sector representatives perceive their situation within MSC work. The importance of experience is intensified when we consider that numerous groups, sectors, and networks of AET have prior internal and external experiences and meaning schemes and perspectives (Mezirow, 1991) that shape how they participate and learn in MSC. It is important to not only discover what prior experiences and learning exists but to also position that experience to elicit positive learning gains throughout the multiple sectors.

Learning at the individual, group, organizational, and systems levels will be required to help foster the emergence of a sense of the commons within the MSC process (Scharmer, 2009). Sector representatives will need to be able to engage in this form of learning at the individual and group or collective level. The sense of authority, autonomy, and self-directedness required for learning at these levels will vary. As one enters into the MSC process, participation will require an authentic sense of self relative to one's sector: who am I as a representative of this sector and what do I seek from this process? Entering into the diversity that is the multi-sector process will require an ability to de-authorize one's self so that others in the process may be authorized to speak and to act (Smith & Berg, 1987). This paradox is a defining dynamic of group and multi-sector processes and one that needs to be successfully negotiated by the group to foster the development of a sense of the commons. It requires considerable self-directedness on the part of sector representatives joining the MSC process. This sense of self-directedness is considered a necessary condition for transformative learning (Cranton, 1996), since it embodies an increase in an individual's awareness in and responsibility for their own learning, as well as a growing appreciation for learning at the level of the collective. Such autonomy and awareness is a prerequisite for individuals and groups to find innovative solutions to complex problems facing the food systems in developing countries.

The demands placed on individuals and groups in multi-sector collaboration are significant and perhaps partially explain why MSC processes often fall short of their collective goals. The idea of “barriers”, derived from participation theory in adult learning (Merriam et al., 2007), helps identify some of the key challenges that sector representatives will face when they enter into MSC. This literature underscores the importance of dispositional and situational factors that may detract from or limit participation in multi-sector collaboration. This process requires particular personal qualities and values - dispositions - on the part of sector representatives. To work effectively across differences that constitute multi-sector collaboration requires a sense of open-mindedness, a tolerance for uncertainty and ambiguity, and the capacity for active listening. Sector representatives may also experience a lack of confidence in themselves or the process and may experience conflict with family or work situations, or simply not be interested in the activity. Sector representatives need to believe in and feel strongly about the importance of an emerging commons within the process. Situational factors, such as insufficient time and resources, or support from one’s own sector or institution, may also limit full engagement in the process.

### **Advancing Multi-Sector Collaboration**

The analytic lens described above provides the basis for applied processes that can be used to advance MSC and AET capacity. Combined, they illustrate current AET system and MSC functioning and highlight targeted areas of reforms. The processes are intended to guide adults directly involved with AET in a given region to operationalize transformative learning through critical reflection and transformation of their current perspectives and behaviors. The following discussion describes three such processes to increase AET’s effectiveness via MSC: system diagnosis, problem prioritization, and strategic planning.

The first process consists of understanding the dynamic nature of multi-sector relationships to explain the major operational components of the system with respect to adult education concepts. In order to change a system, change agents must first bound the system and second, understand system components, resources, norms, regulations, and the interactions between stakeholders before they can identify effective change levers (Foster-Fishman, Nowell, Yang, 2007). The concepts discussed above form an evaluative framework that can be used by AET stakeholders to assess and diagnose MSC, outlined below in four dimensions.

First, stakeholders define the boundaries and context of their AET system. This is a crucial step because it defines the learners engaged in MSC, what is learned (i.e. the content), how it is learned (i.e. the process), and how learners interact in positive and negative ways. In addition, part of defining the context involves examining the cultural and societal elements both on a holistic scale and also the sub-cultures involved within the various AET sectors. Within these cultural and societal structures, it will be important for stakeholders to assess the power relationships between various individuals, organizations, and sectors, which could significantly impact the ability to learn how to collaborate and learn from formal and informal relationships.

Second, prior experience is critical in MSC, since, individuals, organizations, and even entire sectors have historical modes of interaction that shape their perspectives of other sectors. AET stakeholders must determine the nature and extent of these prior experiences, which will require them to critically evaluate their roles and relationships. AET stakeholders would need to ask questions such as: (1) what are my perceptions of other stakeholders and sectors?; (2) what experiences have led me to these conclusions?; (3) are my current perceptions accurate, why?; (4) are my current perceptions helpful or a hindrance to creating positive relationships?; and (5) what perceptions do other stakeholders and sectors have of us, why?.

Third, stakeholders must assess the degree of SDL in the AET system, since SDL is highly connected to learning commitment. MSC will function more effectively as stakeholders increasingly value and desire to learn from each other and actively pursue collaboration. Stakeholders can ask the following types of questions to examine the extent of SDL in the system: (1) how have we engaged in MSC, what evidence do we have of this?; (2) what have we gained from collaboration with other sectors?; and (3) how have individuals and organizations in other sectors engaged in MSC, what evidence do we have of this?

Fourth, many barriers prevent successful MSC. A situational barrier may consist of insufficient staff within a particular sector to spend the necessary time to build and sustain collaborative relationships. A dispositional barrier may take the form of individuals not valuing another sector's potential contribution, leading them to avoid collaboration. Stakeholders can use questions such as the following to probe MSC barriers: (1) what barriers prevent collaboration with other sectors or stakeholders? and (2) why do the barriers exist and how did they form?

By examining an AET system along these four dimensions, stakeholders are able to clarify system operations and through critical self-reflection, identify problems that prevent the system from reaching its full potential. This examination will likely occur first within individual sectors or even sub-sector. This is beneficial, since, engaging individual sectors first in self-reflective dialogue may increase the likelihood of individual sectors bridging sectoral boundaries to address mutual problems.

A second process is problem prioritization, which involves multi-sector stakeholder dialogue to reach a shared understanding about the most pressing issues preventing collaboration between sectors. The four components described above are useful in framing these multi-sector relationships, since the larger group will need to be aware of contextual factors, prior experience, willingness to take responsibility for learning, and situational and dispositional barriers. The process of prioritizing problems is both an opportunity to practice multi-sector collaborative interactions and provides another opportunity for stakeholders to critically reflect and analyze the functioning of their system within an expanded social learning environment. This could lead to transformative learning as stakeholders come to terms with outdated schemata and replace it with more functional attitudes and perspectives that favor MSC.

A third process is strategic planning where stakeholders together envision an ideal AET system and address the barriers preventing its realization. Finding solutions involves the four conceptual locations discussed above. That is, to decipher gaps between the current and future state, stakeholders must successfully take into account the adult learning context, prior experiences that may help or hinder solution attempts, the degree of self-directedness of specific stakeholders for particular problems, and the situational and dispositional barriers that need to be removed. The multi-collaborative group must again engage in self-reflection and assessment to find agreeable solutions across sectors and address the adult learning hindrances that inhibit MSC. Given system dynamics (Meadows, 2008; Senge, 1990), problems will not be static and will not be able to be addressed in a tidy linear fashion. Multi-sector collaborative relationships will need to constantly assess current system functioning with respect to MSC, prioritize problems to be addressed, and work together to come to mutually advantageous results. This will require that stakeholders and multi-sector groups pay special attention to the transformational learning implications at individual, organizational, and sector levels within an AET system.

### **Conclusion**

MSC represents an opportunity not only to deepen knowledge of existing adult learning theories but also to extend the conceptual frontiers of adult education. More pointedly, applying

the rich resources of this field to MSC toward reform in agricultural education and training systems in developing countries embodies adult education's progressive and historic blend of scholarship and practice, and offers the potential to help increase food security in some of the most vulnerable areas of the world.

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