### RESEARCH ARTICLE

# **Developing a Measure of School-Community Capacity**

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**Abstract.** This exploratory research aimed to develop qualitative and quantitative strategies and means of assessing the relationship between school-community capacity and selected educational outcomes for children. School-community, a delimited way of defining community for the purpose of this study, was a conceptual innovation that emerged during the research process. Rather than a predictive instrument, a diagnostic tool for school-community capacity assessment was developed. Factor analysis results in the validation phase identified 5 to 7 education context-related and data contributor-relevant community capacity dimensions in a pool of 22-item indicators. These dimensions were the following: trust in government leaders and processes of selecting leaders, trust in school-community leaders, trust in community and civil society organizations (may be counted as one dimension altogether or three separate dimensions), civic involvement, access to resources, participation in school, and pride in community (*purok* [zone] or *barangay* [village]).

Keywords: community capacity; education outcomes; instrument construction; school-community capacity

## Introduction

Basic education in Mindanao has been the focus of a number of institutional capacity building efforts in recent years (e.g., Education Quality and Access for Learning and Livelihood Skills [EquALLS], Basic Education Assistance for Mindanao [BEAM], Basic Education Project [BEP]). More often than not, the main goal is to strengthen teaching, school management, and educational resources. Aspects of the community where the school is located have also been considered as worthy of some attention. This paper describes an attempt to measure aspects of community that may be useful for gauging the capacity of

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a community to support educational outcomes. I will delve on the processes of grounding the instrument on relevant concepts rather than specifics of the validation tests because of research contract restrictions on data disclosure.

The concept of community capacity used in this study is akin to concepts of community strength, social resilience, community assets, social capital, and solidarity, to name some. The concern over social dimensions of community is partly a result of observed limits to development initiated by the state and by the private sector. A study by the Massachusetts Institute of Technology (MIT) in China, for example, found that rather than economic drivers such as roads and bridges, the existence of leaders who promoted calligraphy and who cared for temples and gravesites and the presence of solidarity groups were often more associated with the provision of collective goods (e.g., education, clean water, public order) (Tsai 2007; Ann Swidler, pers. comm., 2010).

A basic difficulty in measuring community capacity arises from construing a useful definition of *community* and of *capacity*. Definitions of each of these broad and separate terms have been

comprehensively reviewed by other authors (Bopp et al. 2002; Chaskin 2001; Cheers et al. 2005; McLellan-Wright et al. 2007; Goodman 1998; Laverack 2006; Kwan et al. 2003). A comprehensive definition of *community* may appear irrelevant in operational terms for a variable of community capacity in educational contexts wherein the value of education is less widely shared compared to other contexts such as health. Especially in depressed areas, education outcomes may be of lesser concern for majority of the population saddled with problems of costly agricultural production, low incomes, and poor health and nutrition. A limited part of a community may therefore be expected to get involved in such projects aimed at educational reforms.<sup>2</sup> Even a few core components that are usually expected to be attendant in the notion of community may be difficult to state in measurable terms in the context of community capacity for educational reforms. For example, the presence of social ties and a sense of belonging together may vary if community were to be confined to organizations such as the Parents-Teachers Associations (PTA) that are expected to act on educational reforms more than any other community organizations. A common way of differentiating definitions of community is whether community is referred

to as place as opposed to community as a commonality of interest. PTAs may be readily identified with particular schools or places where the organization is connected yet a PTA may conceivably amount to a community of interest if the association has generated enough participation to push for some educational reforms. Thus members may be construed as a community of education "reformers," for instance. In such a context, community capacity may well be defined as a capacity of a community of mostly education-oriented family members to bring about certain desired education outcomes both for the benefit of their own child in school or for the general benefit of others in the same school. Though operationally challenging, this definition however excludes "community of places," more specifically the neighborhoods of members which might have a role, albeit a minor one, in bringing about certain educational outcomes. For example, safety of the neighborhood has been linked to performance of school children.

Capacity is another term that has been the subject of wide bibliographic analysis by other authors (Baker and Teaser-Polk 1998). Its wide variety of meanings may be inordinately narrowed down when operationalized in the limited context previously described. Within the boundaries of PTAs<sup>3</sup>, capacity may amount to organizational capacity rather than community capacity per se.<sup>4</sup>

<sup>1.</sup> Gabriel Chanan of the Community Development Foundation analyzed whether the quality of communities could be systematically measured. He came to the conclusion that communities themselves could not be meaningfully measured because they are fluid and overlapping, not fixed entries, and that most of the existing "community" indicators are in fact indicators of localities or local populations. While these are highly informative on issues such as health, education, and the environment, ironically they are often lacking in measures of community life itself—that is, levels of community activity volunteering, social capital, participation in local governance, and particularly the extent and effectiveness of the local community and voluntary sector, consisting of autonomous groups and organizations (Christensen and Levinson 2003).

<sup>2.</sup> Different types or levels of community (e.g., community members, local community organizations, coalitions) may have different amounts of capacity, and/or different types of skills and capacities may be needed to engage in the change processes at different levels of community. For example, community capacity may exist among community members, and the local organizations that these individuals belong to may have the capacity to engage their membership in local coalitions, programs, and changes (Baker and Teaser-Polk 1998, 279).

**<sup>3.</sup>** The Department of Education has since issued Department Order 54 reverting Parents-Teachers-Community Associations to their former PTA status. This development presented a new challenge for research because of the implications for the community capacity tool being developed.

<sup>4.</sup> Baker and Teaser-Polk (1998, 279) claimed that the community capacity of a joined community (or coalition) may be significantly less than the community capacity of each of the individual communities. Thus, the narrow delineation of a school-community or those aspects of a community that are closely associated with the education outcomes of interest in particular schools may be more significant for a measure of community capacity in educational contexts. An effort was attempted to select research sites where capacity building for PTAs was exclusively carried out by the international NGO that commissioned this study. This strategy was meant to establish causal links between the capacity building inputs to the PTA and the education outcomes measured. However, all the study sites that were accessible during the research period had also been subjected to PTA capacity building by other international agencies. The capacity level of PTAs as a variable was therefore dropped from the research design.

Expanding the concept of community capacity to include family capacity and perhaps neighborhood capacity to support education outcomes is another option, yet this would imply greater cost of data collection for these added structural sets.

# **Community Capacity**

Many definitions of community capacity (Hawe et al. 2000; McLellan-Wright et al. 2007) and kindred terms such as community strength, social capital (Grootaert et al. 2007; World Bank 2007), social resilience (Cuthill et al. 2008), social vulnerability and risks, and so forth were studied. Eventually, a definition of community capacity from the New South Wales Department of Health (McLellan-Wright et al. 2007) was used as a broad guide (health was replaced with education in the quote):

an approach to the development of sustainable skills, organizational structures and commitment to improvement in education and other sectors, to prolong and multiply education gains many times over.

Goodman et al. (1998) pointed out that it is well to acknowledge that capacity is dynamic, thus "we may need to determine if certain dimensions of capacity are differentially important in different stages of development within a community and across different levels of community."

The role of community capacity in educational improvement has been construed in specific and limited terms. Parental or family involvement had been included or treated separately as an aspect of community. Other factors such as peer support, neighborhood characteristics including presence of responsible adolescents and adults provide supplementary role but usually in as far as these reinforce school functions. These are among the data collected regularly in the United States Household Education Surveys. A review of international literature commissioned by New Zealand Ministry of Education provides a good assessment for zeroing in on a few community-related dimensions:

[E]ven for outcome measures early in life, certain candidates for home environment factors are increasingly being ruled out as causal factors in explaining differences in many outcomes, factors like family income, differences in parenting styles and certain aspects of family structure . . . Parental involvement in schools tends to raise school quality somewhat, even if a great portion of this may be specific to the child whose parents are involved. There is also evidence for some withinclass peer effects even if it is difficult to interpret precisely what this evidence means. Finally, while there seems to be increasing consensus around the premise that broader neighborhood effects related to residential, ethnic and cultural communities are important, we still know little about these effects and find them difficult to quantify. (Nechyba et al. 1999)

The instrument thus designed incorporated parent and family involvement in education and civic involvement as components of schoolcommunity. The emphasis was on parents' participation in educational activities at home as well as participation in schools their children attended. The population of interest was children enrolled in third grade through children enrolled in fourth grade. These school levels were assumed to be strategic for assessing school readiness and chances of success in schools. These levels were also selected to serve as a criterion for a purposive sample to reduce costs of data collection. Questions for parents/guardians whose children attended purposively selected schools addressed specific ways the family was involved in the school, communication with teachers and other school practices to involve families, and parent involvement with children's homework. Data contributors responded to questions about parent and family involvement with their children in educational activities outside of school. An additional topic for parents was training received for helping children with their studies.

Civic involvement was addressed through questions related to their contribution of time and money for projects and talking and asking about what is happening in the *barangay* (village).

Means of data collection or data capture can influence to a significant extent the design of a community capacity measurement tool. Because a one-size-fits-all design proved almost impossible to construct, the effort in this study focused on one type of source of data that has been assumed

to have proximate bearing on education outcomes. This data source is the family-in-the-school-community. From this vantage point, community capacity zeroes in on the cognitive, behavioral, and relational construals of parents/guardians within community places linked via schools where their children study. This data contribution to community capacity measurement is expectedly limited but it can be supplemented by other table indicators that may be available.

## **School-Community Capacity**

To reiterate: instead of community, which some authors have considered an impossible concept, I operationalized a construct of a schoolcommunity to serve the purpose of this study. A school-community thus defined refers to the aspects of community that are presumed to be proximately relevant to the education outcomes of interest in this study. The parent/guardian/major carer in households linked to specific schools via children who study there is the key node in an actor-network concept that guided the emergent operationalization of a school-community. The school-community thus defined cannot be expected to correspond to usual political boundaries such as the barangay although, as a possible working referent of the focal data contributors, this has been considered, along with purok (district), municipality, and perhaps a "national community" generalized in the term "national government officials." In the public schools chosen for this study, most of the samples yielded households that were located within the barangay where the schools were also located.

Some consideration was also given to household factors that may benefit a particular child from the same household in contrast with community factors that may have bearing on the welfare of children in that school in general.

## Design of the Instrument

A screener was used to determine eligibility of data contributor. The person in the household who

was most involved in the education of the focal child was the intended source of data.

Data were collected about family involvement and community capacity dimensions that may have some bearing on children in third through fourth grade in purposively selected schools. The data contributor for the interview was the adult living in the household who was the most knowledgeable about the child's care and education. Typically, this was the mother of the child; however, the respondent could be a father, stepparent, adoptive parent, foster parent, grandparent, another relative, or nonrelative designated as the most knowledgeable household member. Few of these other roles turned out as data contributors in the places purposively chosen.

A series of questions addressing factors associated with participation or nonparticipation in the focal child's education was asked of all data contributors.

The number of households included in the study was limited by the availability of project and comparable nonproject areas that were deemed safe for the conduct of the interviews. For homogeneity of the sample areas, evenness of capacity-building intervention by external agencies and nongovernment organizations and levels of capacity of PTAs were considered. Other possible sites were also excluded because of high costs. A purposive sample of three schools in old project sites and three schools in very new project sites were subsequently chosen. These schools were the most similar in terms of enrollment size and level of institutional capacity of PTAs. The PTAs were assumed to be a key community organization in the reckoning of community capacity domains/ indicators related to education.

A sample of two hundred data contributors would have been adequate to validate the fifty-item indicators to measure community capacity with the use of factor analysis (Table 1). Scales used for measuring school-community capacity were tested for internal consistency using the SPSS reliability test for Cronbach's alpha. Factor analysis in SPSS was also used to verify the dimensional structure of the measurement instrument.

#### **Dimensions Identified**

Factor analysis results identified from six to eight education context-related and data contributorrelevant community capacity dimensions in a pool of twenty-two-item indicators. These dimensions were the following: trust in government leaders and processes of selecting leaders, trust in school-community leaders, trust in community and civil society organizations (may be counted as one dimension altogether or three separate dimensions), civic involvement, access to resources, participation in school, collective action and personal sense of efficacy, and pride in community (purok [district] and barangay [village]). Moderate internal validity (0.67 of variance explained through principal components analysis; .70 KMO measure of sampling adequacy) and moderate reliability of the instrument (0.79 Cronbach's alpha) may have been due to some missing values and other factors (Table 2).

Family involvement did not emerge as a clear and separate dimension. This result may have been due to the culling out of finer dimensions of family involvement, which did not show prominence in the pretest. The context of the families included in the pretest—usually farming households that can only afford to send children to public schools—might also explain the non-emergence of family involvement as a separate dimension of school-community capacity.

With the reduction of complete cases to 175 because of missing values, only twenty-two items with higher intercorrelations were identified to meet requirements of sampling adequacy for factor analysis and reliability tests.

## **Data Analysis**

A total of 175 valid cases were analyzed using SPSS version 13.0. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Barlett's test of sphericity determined that the sample and correlation matrix were satisfactory for factor analysis. Principal components analysis (PCA) was used to assess the construct validity of seven scales. Chronbach's alpha was used to

assess internal consistency of items within scales (reliability) comprising three or more items. Spearman's correlation was run to establish the strength of the relationship between items in a two-item scale. Thus, PCA was used to assess the unidimensionality of each scale, and Spearman's correlation was used to assess how strongly items on scales were grouped together.

Employment of factor analysis meets the requirement for certain statistical rules such as the rule that requires a ratio of four subjects per item. In the absence of a project theory-in-use or a model-in-use to guide further assessment of internal validity, some dimensions or indicators were excluded from the twenty-two-item instrument. For example, group diversity, social cohesion and reciprocity, and information links items were not appropriate for the reliability and validity approaches employed.

Selection of the twenty-two items was guided by examination of patterns of responses on questions as well as correlations of items. Grouping and labeling of dimensions were guided by factor analysis. Patterns of correlations suggested items that grouped well together and separate well in relation to other groups of indicators. Additivity of the indicators was not established. Therefore, any summation of raw scores may at best amount to separate indicators that may be useful as diagnostic profiler rather than an overall or composite measure of school-community capacity.

The limitation of the instrument items to twenty-two may have also been a function of the reduction of the sampling of 226 data contributors to 187 completed instruments with 175 valid cases or complete set of data per data contributor for factor analysis. To reduce the limits and influence of sample size on analysis, unidimensionality was examined for each scale. This approach was successfully adopted by some authors of psychometric papers (Anderson et al. 2004; Anderson et al. 2005; Barrett et al. 2005; Plotnikoff et al. 2005).

On the other hand, a shorter instrument satisfies the research partner's preference for a tool that is easier and less costly to administer.

TABLE 1. Initial analysis

Domain	Mean scale score (SD)	Item factor loading	Eigenvalue % variance	Scale alpha
1. Trust I			20.65	
Q65 Senators	3.14 (0.87)	0.84		0.62
Q66 Representatives	3.12 (0.91)	0.76		0.61
Q67 Supreme court justices	3.13 (0.92)	0.72		0.62
Q63 National government officials	3.13 (0.91)	0.70		0.62
Q62 Local government officials	2.92 (0.92)	0.66		0.62
Q60 Neighborhood willing to help	2.69 (0.80)	0.37		0.62
Q78 Private enterprises	2.40 (0.81)	-0.34		0.65
2. Access to Resources of Organizations			6.56	
Q120 Municipal government	2.56 (1.06)	0.82		0.61
Q121 Barangay Council	2.60 (1.03)	0.64		0.62
Q119 Schools	2.01 (0.98)	0.50		0.61
Q118 Hospitals	2.80 (1.18)	0.49		0.61
3. Trust II			5.32	
Q73 Local government	2.79 (0.74)	0.71		0.65
Q72 Police	2.80 (0.77)	0.69		0.65
Q74 Army	2.94 (0.76)	0.60		0.65
4. Civil Communication/Critical Skills			5.18	
Q90 Talking with friends about barangay	2.02 (0.81)	0.79		0.62
Q91 People asking about barangay	2.25 (0.84)	0.76		0.63
Q88 Talking with friends about country	1.94 (0.74)	0.60		0.63
4. Trust III			4.42	
Q76 Schools	3.72 (0.86)	-0.80		0.61
Q68 Teachers	1.77 (0.89)	0.61		0.62
Q64 School officials	2.19 (0.99)	0.45		0.61
Q75 Church/mosque	4.29 (0.87)	-0.38		0.66
5. Empowerment			3.73	
Q112 Influence in making barangay better	2.07 (0.72)	0.70		0.63
Q113 Influence in making school better	1.90 (0.67)	0.70		0.63
Q111 Influence of local government on barangay	2.22 (0.68)	0.39		0.63
6. Trust in Information Sources			3.56	
Q79 Radio	2.95 (0.75)	0.94		0.65
Q80 Television	2.81 (0.89)	0.44		0.66
7. Social Diversity and Neighborhood Trust			3.31	
Social diversity (recorded items)	6.09 (1.77)	0.61		0.64
Q61 In this neighborhood, one has to be alert	2.36 (0.94)	0.59		0.64

TABLE 1. Continued

Domain	Mean scale score (SD)	Item factor loading	Eigenvalue % variance	Scale alpha
8. Sense of Community			3.12	
Q106 How happy you consider yourself to be	1.89 (0.83)	0.10		0.62
Q104 How proud to be a member of the barangay	2.41 (1.15)	0.33		0.61
9. Social Cohesion			2.81	
Q57 Number of close friends	2.82 (1.86)	0.71		0.66
Q82 Number of communal activities	1.25 (1.08)	0.49		0.65
Q45 Number of groups	1.68 (0.82)	0.40		0.64
10. Leadership and Group Networks			2.67	
Q122 Selection processes ensure best leaders	2.35 (1.08)	0.52		0.60
Group diversity (recorded items)	8.07 (1.79)	0.48		0.64
Q53 Group interaction outside barangay	1.91 (0.69)	0.4		0.63
Q56 How effective is group's leadership	1.62 (0.55)	0.37		0.63
11. Trust			2.67	
Q69 Courts	2.68 (0.88)	0.60		0.65
Q70 Political parties	2.51 (0.73)	0.50		0.64
12. Neighborhood Reciprocity			2.53	
Neighborhood reciprocity	2.11 (0.43)	0.40		0.64
Q100 How safe from crime and violence	1.95 (0.88)	0.37		0.62
13. Social Cooperation			2.36	
Social cooperation (recorded items)	2.40 (0.71)	0.34		0.63
Q95a Number of times got together	0.49 (0.50)	0.54		0.65
Total		·	66.22	
Kaiser-Meyer-Olkin (KMO)			0.79	

## NOTE:

Scale used 1-5, 1 being "Low" and 5 being "High"

Data contributors rated multiple-scale items totaling 68 for the community capacity measurement. This number was reduced to 44 after eliminating items with more than 5% missing values and items with low intercorrelation.

 TABLE 2.
 Summary of factor analysis and reliability test

Domain	Mean scale score (SD)	Item factor loading	Eigenvalue % variance	Scale alpha
1. Trust I			23.06	
Q Local government officials	2.01 (.723)	0.73		0.77
Q National government officials	2.15 (.769)	0.85		0.78
Q Best leaders selected	2.12 (.899)	0.45		0.77
2. Trust II			5.82	
Q Schools	-	-		0.79
Q Church/mosque	3.93 (.394)	-		0.8
Q Local government	3.93 (.595)	-		0.81
3. Trust III			8.2	
Q School officials	1.56 (.553)	0.79		0.78
Q PTCA/PTA officers	1.53 (.523)	0.86		0.78
Q Barangay officials	1.74 (.632)	0.59		0.78
4. Civic involvement			8.01	
Q People likely to cooperate	1.65 (.851)	0.52		0.78
Q Would contribute time	1.51 (.779)	0.79		0.78
Q Would contribute money	1.70 (.905)	0.76		0.78
Q Talk with friends	1.78 (.801)	0.43		0.78
Q Ask what is happening	2.12 (.886)	0.47		0.78
5. Participation in school			7.22	
Q Attendance in PTCA/PTA meetings	1.13 (575)	0.94		0.79
Q Participation in school activities	1.16 (.567)	0.94		0.79
6. Access to resources and school influence			9.80	
Q Resources provided by hospitals	2.13 (.910)	0.71		0.78
Q Resources provided by Barangay Council	1.85 (.704)	0.53		0.77
Q Resources provided by municipality	2.14 (.778)	0.66		0.77
Q Influence in making the school a better place	1.53 (.701)	0.63		0.79
7. Pride in community			5.32	
Q Purok	1.74 (.717)	0.91		0.78
Q Barangay	1.62 (.675)	0.89		0.78
Total			67.44	
Kaiser-Meyer-Olkin (KMO)			.709	

#### Limitations

Several explanations may be offered for the limited number of items that appeared useful or sensitive for measuring school-community capacity. These explanations may be grouped into two main categories: theoretical or conceptual and methodological.

## Theoretical and Conceptual

The concept of school-community capacity eventually guided the intended validation of the instrument. A working hypothesis advanced at the start was "What is the association between community capacity and improved quality of children's education outcomes, other things being equal?" This relationship proved difficult to establish because of some limitations surfaced by formative research, by the iterative and reflexive research process, as well as via new research literature found during the latter stage of the study. Operational procedures such as restriction of access to project intervention and educational outcome data were meant to minimize researcher bias. However, this research design aspect preempted the inquiry within a confirmatory frame. The research strategy had to be reframed especially when the quality of available educational outcome data turned out to be inadequate. The indicators-based model of community capacity recommended by partners served as a helpful guide, but it bypassed situational, contextual, and cultural differences. Alternative approaches enabled the researcher to identify current limitations and possibilities for future research.

Community capacity as operationalized may after all have relatively smaller contribution to education outcomes compared to the influence of capacity of schools themselves and of community institutions. This has also been suggested by some research literature though no definitive rejection of the link has been advanced. In this study, the construct of school-community capacity was construed in contrast with school capacity and capacity of community institutions. The latter constructs had already been accounted for by the client NGO. The relative importance of these different measures of capacity could be explored internally or may be the goal for future research.

The items or indicators have not been ranked in terms of usefulness for addressing project objectives. This could help in further interpretation of the results.

Nonlinear or possibly dynamic interaction among the indicators have not been adequately theorized or conceptualized in favor of an exploratory approach to instrument construction.

#### Methodical

The sample of data contributors, which may be described as low income, low education, with many children in school (three or more) may have somehow resulted in limited range of responses to the item measures. Thus, it is possible that items with some difficulty or lower agreeability proved less sensitive to measurement of school-community capacity. It is also possible that these data contributor variables could partly explain why family involvement did not appear as a dimension of school-community capacity.

Some items incorporated in the validation phase were not part of the pretest instrument and may have introduced new confounding factors.

What remains to be done is to include items to represent domains, subdomains, and indicators of community capacity that may be deemed necessary from the view of programmatic action and change theory. Other alternatives are discussed in the following section.

Among critical points that may be considered in any follow-up research are as follows:

- Shortcomings of the Likert-type scales as shown by the Rasch method (Bond and Fox 2001). The Rasch method offers a serious challenge to the use of Likert-type scales as well as provides useful analytic technique for improving instrument construction.
- 2. Backward and forward regression analyses have been suggested by some researchers to overcome the limitations of confirmatory factor analysis (Peter J. Batt, pers. comm., 2008). This strategy could indicate the direction of relationships among items or indicators and may thus suggest specific variables to investigate.
- Counterintuitive findings from social capital research, which have previously indicated connection between collective efficacy and

social cohesion. Social capital indicators were largely incorporated in the current instrument design. If some domains that have been theorized to compose community capacity have ambiguous interrelationships, an additive assumption behind the measurement of community capacity (high-low) would be rendered untenable.

- 4. Advanced techniques in modeling dynamic adaptive complex systems allow us to anticipate the limitations of measurements that capture only a few domains of community capacity. Some studies that have been encountered have not been completed so results are not available to guide the current research.
- 5. Our efforts to link community capacity with specific education outcomes may also be served by theorizing (e.g., Communication for Social Change [Figueroa et al. 2002] and Annie E. Casey Foundation approach) as well as "mapping" strategies (e.g., Pathways Mapping Initiative [2007]) for zeroing in on project-theory specific path analysis of variables. In the Communication for Social Change model presumably adopted by the focal NGO, core domains of community capacity had themselves been appropriated as outcomes of social change or community capacity building. When related with specific education outcomes, these community capacity outcomes may be construed as "interim indicators" and the education outcomes "ultimate outcomes." Causal links between these two sets of indicators and outcomes may be investigated through more specific hypotheses. A more focused investigation may be achieved by eliciting implicit theories from project and program staff and drawing hypotheses from these theories. This is an approach recommended by the Annie Casey Foundation. An advance from this approach is to work on specific path analysis models incorporating only a few variables derived from the theory.

A combination of these approaches may also be attempted. For example, the core domains of leadership, participation, collective efficacy, social cohesion, etc., may be defined for each community setting such as the PTA, the Barangay

Council, *tanod* (neighborhood watch), and perhaps a sample of neighborhoods. Are these roles critical for educational outcomes? How are possibly significant factors as child labor, malnutrition, neighborhood juvenile delinquency, and household displacement addressed by PTA?

Over the long haul, efforts to measure capacity of a community to act on its own behalf and to work with partner organizations were fraught with difficulties. These difficulties ranged from definitional problems arising from varying concepts of *community* and of *capacity* to theoretical and methodological challenges to a construct of "community capacity" posed by developments in the social sciences.

Having gone through this analysis, we suggest that community capacity can be a useful construct for guiding and understanding community social change efforts. However, the transition from broad concept to social action with measurable specific outcomes is difficult. Such efforts need to chart clear pathways between their goals and the likely means to reach such goals. They also have to anticipate likely impact of local dynamics on implementation, explore more effective means to promote organizational cooperation and engage families, and appreciate the limitations of community-level action. Expectations can then be changed appropriately and efforts blended with strategies at other levels of action.

Overall, this research endeavor has demonstrated even in a partial way that community capacity is measurable. The review of literature, for one, already identified many ways in which community capacity in various contexts could be measured. Though limited published research had claimed validity and reliability especially with regard to community capacity associated with education outcomes, they had served as a foundation for the current effort. As others had concluded, a one-size-fits-all measure of community capacity may be almost impossible to validate.

Rather than a composite measure, a diagnostic profile maker may be the function of the dimensions and indicators selected in this study. This diagnostic tool may be used to supplement internal assessments of institutional capacity that are used for project monitoring.

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