

Using the Logic Model to Guide Needs Assessment in an Emerging Estate

by

Yum Sin Ting

Ong Wei Liang William

Abstract

Social services and programmes are often developed to address current and emerging needs in communities. Newly developed housing estates bring about issues that normally differ from mature communities. Social service practitioners are faced with the need to investigate and understand possible issues, challenges and assets in such emerging communities. Hence, needs assessment forms an integral component of service and programme planning. The logic model is a tool that is commonly used to help plan, implement, evaluate and communicate about programmes (Taylor-Powell & Henert, 2008). This paper highlights the use of the logic model in guiding the process of a community needs assessment project carried out in the emerging Punggol community in Singapore. The project began in 2013 and has progressed to the implementation stage at the time of writing.

Introduction

Singapore has developed rapidly as a country since its independence in 1965. Residential towns have been created in phases to ensure that each community would be self-sufficient with easy access to commercial, recreational and social facilities within the residential town (Housing & Development Board, n.d.). Family service centres (FSCs) have been also developed within different communities to serve as community-based social service providers for families in Singapore (National Council

of Social Services, n.d.). Social workers in communities face the constant challenge of developing social services and programmes to address the current and emerging needs of the communities to ensure relevance of these interventions.

With the emergence of Punggol New Town in recent years, Punggol Family Service Centre (PGFSC), the fourth family service centre under umbrella of The Ang Mo Kio Family Service Centres, was set up in December 2012 to promote and provide services to improve the social well-being of individuals and families in this community. The core work of PGFSC is to provide casework and counselling services to clients presenting an array of psychosocial problems ranging from financial difficulty to behavioural, parenting and marital issues. In addition, PGFSC aims to develop family-oriented programmes to complement its casework and counselling services. The development of new housing estates like Punggol bring about issues that differ from mature communities; hence PGFSC's social workers are faced with the need to investigate and understand possible issues, challenges and assets in this emerging community. Needs assessment thus forms an integral component of service and programme planning, particularly for this newly operational FSC.

This paper will expound the following based on the contextual background described above:

1. The purpose of a needs assessment in Punggol community and how it is planned for delivery.
2. The utilization of the logic model as a conceptualizing tool to guide and enhance the preparation and execution phases of the community needs assessment project currently conducted by PGFSC.

Characteristics of an Emerging estate in Singapore: Punggol New Town

With 96,000 dwelling units being projected for Punggol and 24,000 more flats expected to be completed by 2016 (Housing & Development Board, 2012; Woo, 2012), this community is one of the fastest and larger growing populations in Singapore. It is expected that the population will increase to a capacity doubling that of Ang Mo Kio estate (Woo, 2012). Housing types in Punggol varies from older estates, with a higher proportion of quality-designed Housing Development Board (HDB) flats, executive condominiums and private housing. Above 90% of the residents in Punggol live in HDB flats, the highest percentage of HDB residents in all the estates on the island (Singapore Department of Statistics, 2012). The residential ratio in Punggol also consists of a large number of a new generation of younger families, that is, families comprising parents who are in the workforce and balancing the demands of both employment and parenthood. In 2012, the proportion of children staying in Punggol was the highest in Singapore at around 10% (Singapore Department of Statistics, 2012). Although there is a high population of children, Punggol estate has only 22 childcare centres at the time of writing, which are estimated to serve 23% of the community's preschool children (Musfirah, 2013). Other social and health-care facilities are also lacking, and plans for the development of infrastructure such as a polyclinic and library are in the pipeline (Poon, 2011; Channel News Asia, 2013).

The above population characteristics and environmental landscape demand that specific social services in this estate be crafted differently from those in mature estates such as Toa Payoh estate, where there are more elderly residents and more service providers available to the residents. Replication of programmes in other communities or provision of pre-determined services without a thorough understanding of the current conditions or problems in the community that a social

service agency serves would be both unaccountable and unethical social work practice. Thus, “the appropriate first activity (for effectiveness-based programme planning), then, is problem analysis and the assessment of need” (Kettner, Moroney & Martin, 2008, p. 42).

Needs Assessment

Programmes by FSCs should be in accordance to normative and perceived needs of the community. These should be developed with minimal duplication of resources and services, thus ensuring accountability to funds channelled to the FSC. Being a new voluntary welfare organization in the new and upcoming Punggol town, it is important for PGFSC to identify the assets of the community and the potential social problems the community might face. According to Chinman, Imm and Wandersman (2004), “a needs assessment is a systemic process of gathering information about the current conditions of a targeted area that underline the ‘need’ for an intervention” (p. 15).

One purpose of the needs assessment by PGFSC is to find out the range of needs that the Punggol residents and community stakeholders have. There are four different types of needs mentioned by Kettner et al. (2008, p. 62), which are illustrated in Table 1 below.

Table 1

Four Types of Needs

Type of Need	Definition
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Normative Need	Need defined as falling below a standard or criterion established by custom, authority, or general consensus
Perceived Need	Need defined in terms of what people think their needs are or feel their needs to be.
Expressed Need	Need defined in terms of the number of people who actually have sought help.
Relative Need	Need measured by the gap between the level of services existing in one community and those existing in similar

Note. Taken from Kettner et al. (2008, p. 62).

The needs assessment currently conducted by PGFSC is not a scientific research but an attempt to help the centre and its staff understand the assets and service gaps in the community it serves. This needs assessment comprises two components, namely, community needs assessment (CNA) and community partner needs assessment (CPNA). As the name suggests, CPNA is a needs assessment based on inputs from community partners such as the police, schools and grassroots organizations that the FSC works closely with. In contrast, CNA uses primary and secondary sources to gather information on the perceived and expressed needs of the residents who are usually regarded as recipients of FSC services. Through the two components of the needs assessment, PGFSC attempts to ascertain, document and advocate for programmes needed by the community to be made available to the community (Dudley, 2009).

The needs assessment project of PGFSC was initiated by its pioneering staff, consisting of a team of seven social workers, one social work associate and one administrative assistant. Challenges confronting this team at the initial stage were the lack of experience in conducting community needs assessment, as well as the need to juggle the increasing demand for the provision of casework and counselling services

with a project of such magnitude. As such, the logic model was introduced as a tool to assist the team in theorizing the project, so that they would be able to plan and conduct it in systematic stages while ensuring a comprehensive range of activities leading to the desired goals and vision.

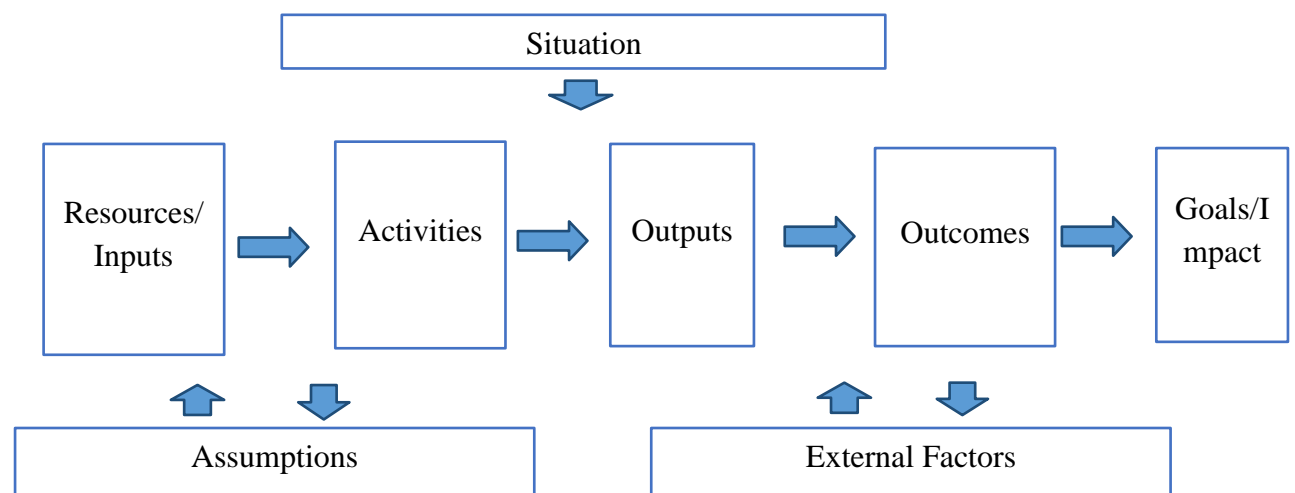
The Logic Model

The logic model may be defined as “a picture of how your programme works—the theory and assumptions underlying the programme. This model provides a road map of your programme, highlighting how it is expected to work, what activities need to come before others, and how desired outcomes are achieved” (W. K. Kellogg Foundation, 1998, p. 35). The logic model is a tool commonly used to help plan, implement, evaluate and communicate about programmes (Taylor-Powell & Henert, 2008). The logic model highlights systemic thinking through a series of “if-then” relationships that connect the different components of the programme, such that one will know if there are gaps and a need for programme modification when “if-then” links are unclear between activities and outcomes. Hence, in the planning of programmes, the logic model helps in the structuring of one’s programme strategies and clarification of goals (Innovation Network, 2005). This constituted the main rationale for the use of the logic model in the needs assessment of PGFSC. Furthermore, as the logic model depicts the theory of action or change, which is how the programme is believed to ‘cause’ some desired changes over a period of time, it helps programme developers in organizing documentation that will propose the

rationale for investment in the programme to stakeholders (Taylor-Powell, Jones & Henert, 2003; W.K. Kellogg Foundation, 2004).

According to W. K. Kellogg Foundation (2004, p. 2), the basic components of any logic model include “your planned work,” which shows resources available or inputs required and programme activities, as well as “your intended results,” which is divided into outputs (direct products delivered), outcomes (specific changes in behaviour, knowledge, skills, etc.), and impact or goal (vision or long term changes in community). Taylor-Powell et al. (2003) further propose three components to be taken into account: situation or problem statement (the current condition or issue), assumptions (theoretical beliefs and research knowledge) and external factors (possible other influences usually out of our control). A graphic illustration of a possible logic model combining the above components is shown in Figure 1.

Figure 1. Components of a logic model.



In general, there are three types of logic models (W.K. Kellogg, 1998, 2004):

1. *Outcomes approach model* focuses on how activities lead to desired results and often subdivide outcomes and impact into short-term, intermediate

outcomes and long-term impact. This is often most helpful in programme evaluation.

2. *Activities approach model* highlights the process of programme implementation. It provides links to how the different resources and planned activities can build upon each other, thereby contributing to expected outcomes. This is useful for programme monitoring and management.
3. *Theory approach model* emphasizes the theoretical constructs and assumptions that underlie the programme design and plan. This is often used in the programme planning and design phase where there is a need to write up proposals for potential funders.

It should be noted that these three types of models are not mutually exclusive and it is possible to combine different types of logic models for a programme. For example, the needs assessment of PGFSC can be viewed as an activity embedded within a new programme that the centre will be developing to provide direct services to the community. In this instance, a theory approach model may be used. Yet, staffs need structure to guide their plans for the process of implementation for the needs assessment project. Thus, it was decided that a logic model using both the theory and activities approach would be used.

Application of the Logic Model in the Needs Assessment of Punggol Family Service Centre

In this section, the PGFSC needs assessment, in particular the CNA, will be explained through the process of the logic model and by breaking down its components. It may be noted that certain components, such as situation statement, assumptions and goals, may apply to both the larger FSC programme for the community, which will include needs assessment as an activity, as well as to the

needs assessment programme per se. For the sake of defining the scope for this paper, the logic model will focus on the needs assessment as a programme on its own, although an awareness of the greater context in which this programme is embedded is helpful for one's understanding.

One of the first tasks to be fulfilled was to make sense of the current available information regarding the Punggol community and consider the possible implications of the information on families living here. A situation statement was formulated as follows:

Punggol is an emerging estate with rapidly increasing numbers of families transitioning into the community. Families have unequal access to social services and community resources, which are also lacking or unevenly distributed around the neighbourhood. Hence, individuals and families relocating in the community are likely to face transitional stresses. This has short- and long-term negative social, health and economic impacts for the families in Punggol, which are thus a concern for social service providers.

In the process of hypothesizing the situation statement, we needed to clarify our theoretical assumptions and researches. Some rationales included:

1. Moving into a new community may be considered as a life transition for different individuals in families and this change creates stress (Price, Price & McKenry, 2010).
2. Families live as a part of a larger social context and not in isolation. Thus, family's reactions to stressors are affected by factors such as the economic and physical conditions of their community, and the family's life cycle stage (Price et al., 2010).

3. Physical transitions involve behavioural transitions that contribute to the healthy integration or adaptation process of individuals into communities (Deslandes, Rivard, Trudeau, Lemoyne & Joyal, 2012).
4. Sufficient and appropriate resources help buffer stress for families. Such resources include community and social support that contribute to individuals' and family's socio-emotional coping (Price et al., 2010).
5. Needs assessments help agencies to investigate suspected needs and discover any new needs, so stakeholders in the community are able to develop appropriate programmes and services for the community (Chinman, Imm & Wandersman, 2004).

The next step was to decide on the vision and goal of the project. Two levels of considerations were made: the intended impact on families living in Punggol and the goal of PGFSC. It was envisioned that as PGFSC functions as a community-based agency providing a relevant and efficient range of family-oriented services, it would ultimately contribute to the positive emotional and social health of families in Punggol.

Shorter-term outcomes or objectives that would lead to the above goal were then generated. These outcomes consisted of those that were of greater interest to the agency and those meant for the direct benefit of people in the community. The short-term and intermediate outcomes of the CNA and CPNA were:

1. To increase awareness of PGFSC's presence as a community resource, and of its services in Punggol community.
2. To identify at least two core family-based social needs, thereby allowing the agency to develop an understanding of the needs and assets in the

Punggol community. This will guide the agency's plans for programmes and services to ensure that the residents' needs are adequately served.

3. To develop at least one new programme that directly addresses the identified needs within two years of establishment.
4. To network and establish collaborative work or streamline current work processes with existing community partners in Punggol to prevent duplication of services and address service gaps efficiently and effectively.
5. To promote knowledge and awareness of available and needed resources among the Punggol community.

The next questions were: What resources were available and what actions would PGFSC have to undertake to achieve the expected outcomes with the current resources? The nine full-time staff, existing interns and volunteers formed the human resources of PGFSC, while FSC operating funds and grant support from North East Community Development Council were the agency's financial resources. Other inputs included the agency's office space, technological equipment, office supplies, access to information and networks with various partners.

Activities and actions were then planned out and divided into those specific to CNA or CPNA, or both. Expected outputs from these processes were strategized at the same time. The agency collected primary and secondary data for the CNA through:

1. Generic survey approach, whereby questionnaires were administered to residents selected via random and convenient sampling. These questionnaires would be administered to at least 300 households across 30

housing blocks in Punggol North and Punggol West by at least 20 staff and trained volunteers. It was carefully planned to ensure that the responses captured in the questionnaires would come from residents of varied socio-economic status using housing types as a point of reference (Coffee et al., 2013). This is a quantitative approach of collecting primary data, which will be analysed and later on, using tables and graphs, to be used to interpret the perceived needs of the families interviewed. Information on PGFSC and existing community resources will also be distributed to families during the resident surveys.

2. Focus groups discussions (FGD) or group interviews with at least three groups of 6 to 10 people who were as homogeneous as possible. In order to have in-depth understanding of the residents' needs, the FGDs will be conducted in a semi-structured style with pre-determined questions based on the information gathered from the generic questionnaires. This is a qualitative approach of collecting primary and subjective data, which will be thematically analysed to find out the assets and needs of the community.
3. Case-trend analysis approach to find specific or significant trends and patterns of problems presented through existing FSC casework and counselling. This will be done by utilizing available secondary data from the centre's data records and systems such as the Electronic Case Management System (ECMS). Through this, PGFSC will attempt to find out what the expressed needs of the families known to the centre are. This component captures the expressed needs of the agency clients. It is

expected that the top three casework trends of presenting problems or issues and underlying issues will be identified in this process.

The CPNA will see the team conduct networking sessions and FGDs with identified stakeholders and community partners, through which the team will form contacts and explore collaborations for service provision. The CPNA team aims to deliver at least three networking and three FGD sessions with 15 to 25 organizations. The final series of activities that the team will conduct are the documentation and sharing of the findings from the CNA and CPNA data collection activities. Sharing the findings from the CNA and the CPNA includes organizing a community event where information will be disseminated to residents and stakeholders. A consolidated report will also be produced for information sharing.

The team also considered possible external factors that would interact or influence the programme's success or ability to carry out the intended activities (Taylor-Powell et al. 2003). These include availability of volunteers and participants for the activities, the degree of interest in participation, speed of construction and approval of PGFSC office as space for the delivery of activities, prevailing government social policies, and weather.

Appendix A depicts the consolidated depiction of the logic model of the Punggol FSC needs assessment project that has been described thus far.

Implications for Practice

It should be noted that the logic model is not the only method to plan for a needs assessment programme and, as with any tools or techniques, there are limitations in utilization. Some common issues of the logic model raised by Taylor-Powell and Hernert (2008, p. 6) are:

1. A logic model represents intention; it is not reality.

2. It focuses on expected outcomes, so people may overlook unintended outcomes.
3. It may simplify the complex nature of causal attribution where many factors influence process and outcomes.
4. It does not address whether we are doing the right thing: we may get caught up in creating a logic model and lose track of whether the programme is the right thing to do.

The illustration provided in this paper is an attempt to document the processes of a needs assessment in a systematic manner to which local social service practitioners can add their array of tools for programme development and planning a needs assessment. This logical process and way of thinking also help social workers work towards ensuring that the programmes which they develop are based on theoretical or practice evidence, and contribute to the evidence base of social work practice in Singapore. Because a comprehensive needs assessment will contribute data to inform social workers of the situation of the contexts in which they work, evidence from needs assessment substantiates the rationale for new programmes or revision of current programmes.

Conclusion

In conclusion, needs assessment is an integral process for programme development for social workers. The creation of a logic model is a means through which practitioners can use to guide their planning process. This process is documented in this paper with the example of Punggol Family Service Centre's needs assessment project in the emerging Punggol estate in Singapore.

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