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A Logic Model for Program Planning and Evaluation Applied to a Rural Social Work Department

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Abstract. *A logic model is framework that is used to delineate goals and resources. It was used by the Social Work Department at Texas A&M University-Commerce to help visualize and establish the initial accreditation of the MSW program and continues to be a valuable tool for this rural social work program. The model has helped faculty determine a vision for the program. This vision has transferred to other areas such as recruitment and retention of faculty, curriculum choices for students, resources for alumni, and community development to reach rural social service agencies that are lacking in resources. The logic model provided a guiding framework that started at the inception of the social work program and has helped clarify strengths and weaknesses in building the social work program.*

Keywords: *logic model, program development, rural social work program, program evaluation*

The purpose of this paper is to apply a logic model framework to social work interventions on all three practice levels: micro, mezzo, and macro. The use of logic models is cross-disciplinary arising from the knowledge base of how social systems function whether as individuals, families, small groups, large organizations, or as macro governmental agencies. From organizational social systems theory, a logic model can illustrate causal links between inputs (resources), outputs (students), and outcomes (achievement of mission) (Chen, Cato, & Rainford, 1998; den Heyer, 2002).

Logic models have become increasingly popular among funding agencies for program planning and evaluation (United Way of America, 1996). Although the terminology may differ depending on the systems model used, the terminology addresses three familiar system elements: inputs, outputs (activities and participants or methodology), and outcomes. Inputs concern resources which are social work practitioners. Outputs concern the product which is the client, family, group, agency or community. Finally, outcome addresses the effect of the intervention or program on the clients, agency, program, or community. Logic models apply short-term, intermediate and long-term outcome measures to assess effectiveness of interventions, and to set goals.

It is especially critical for a guiding framework to be adopted at the inception of an intervention in order to provide coordination and cohesion to the efforts of the various participants. The lack of such a framework often results in wasted time and resources, and can lead to chaos that defeats the purpose of the program. The value of a logic model is that it provides a systematic manner in which to evaluate each step of the process and to integrate the parts into a holistic picture that can then be related to the mission of the program. The nature of the logic model is that if resources are applied correctly, then the specified outputs will be applied. Similarly, if the outputs are applied, then the intervention will achieve its short-term targets that will produce the desired program impact (e.g. Alter & Murty, 1997; United Way of

America, 1996; Wholey, 1987). The process is iterative in that earlier steps are revisited and amended throughout the process. Figure 1 depicts a graphic description of the Logic Model created by Taylor-Powell (1998).
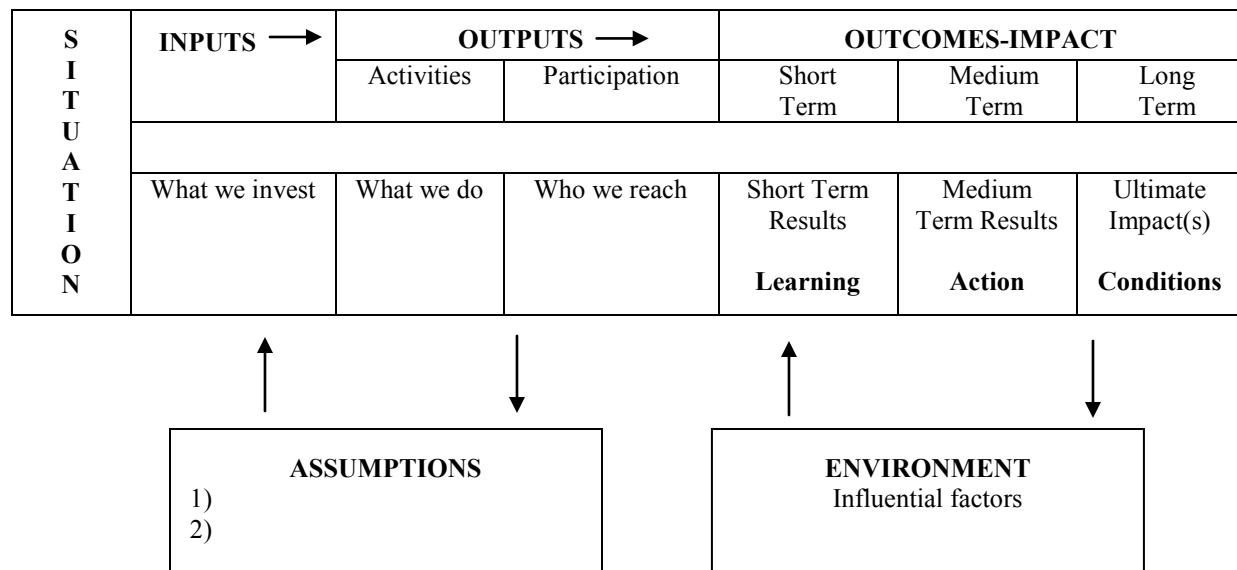
S I T U A T I O N	INPUTS →	OUTPUTS →		OUTCOMES-IMPACT		
		Activities	Participation	Short Term	Medium Term	Long Term
	What we invest	What we do	Who we reach	Short Term Results **Learning**	Medium Term Results **Action**	Ultimate Impact(s) **Conditions**

ASSUMPTIONS 1) 2)	ENVIRONMENT Influential factors

Figure 1. Logic Model: Program Performance Framework. Adapted from *The Logic Model: A Program Performance Framework,* by E. Taylor-Powell, (2001, June 18-21), Paper presented at Providing Leadership for Evaluation, Madison, Wisconsin.

Program evaluation is accomplished by determining if the actual short and long term outcomes are those in the stated goals and objectives. The goals and objectives should be established following the development of a mission statement that addresses the situation requiring action. If the short or long term outcomes are not achieved, the model provides a clear path which can be followed to determine where a problem may exist. The amount and type of input to accomplish the goal should be examined. Was the investment sufficient to support the outputs? The outputs can then be reviewed. Did the activities accomplish what was needed for the expected outcome and did we reach the intended population group? Lastly, did the short term outcomes form the foundation for the medium and long term outcomes to occur? The Logic Model also provides for the impact that environment may have on the desired outcomes.   Both quantitative and qualitative measures that examine all stated goals and objectives should be used in the evaluation process. Summarizing, the process is ongoing and provides for constructive program change as necessary to accomplish the mission statement and goals.

Constructing a Logic Model for a University Department

The logic model, as shown in Figure 1, provided a systematic plan for developing a program evaluation based on the previous work of the faculty in developing a mission, goals, and objectives. The following six steps provided a framework for constructing the framework.

1. Stating a problem or mission of the program.

2. Identifying short-term, intermediate, and long-term outcomes (results and impacts).

3. Specifying program outputs (activities and participation).

4. Identifying resources or inputs (what is invested).

5. Identifying environmental factors.

6. Identifying assumptions.

Background

The Department of Social Work at Texas A&M University-Commerce was seeking accreditation for a new master's program (MSW) in northeast Texas. The program was developed as an outgrowth of a 1997 needs assessment of social service providers in the counties adjacent to Texas A&M University-Commerce. The assessment revealed that many rural communities adjacent to Commerce did not have a sufficient number of master's level trained social workers to meet legal and ethical requirements for supervision, to work across problem areas and system levels, and to develop new programs. The closest MSW program was in Arlington, Texas, approximately 100 miles from Commerce. Thus, location and curriculum were primary motivators leading to the mission of the department.

Step 1

Step 1 is to state the problem or mission of the program or department. The Department of Social Work at Texas A&M University-Commerce used a needs assessment to identify curriculum and program needs. Although the needs assessment revealed the type of knowledge and skills desired by local communities, the development of a mission statement was difficult and time consuming due to the identity development that occurs in new programs. The faculty, staff, field instructors, university, communities, and advisory committee all must agree to the formation of the program identity that is reflected in the mission statement. Program identity also dictates the program's emphasis or specialization. Much thought and debate was given to whether the emphasis would be solely on rural communities or whether it should include suburban and urban areas as well. The faculty chose an advanced generalist specialization because it appeared most suited to prepare students for working across system levels in both rural and increasingly urban areas. Thus the following mission statement of the Social Work Department at Texas A&M University reflects an advanced generalist curriculum:

> The Department of Social Work promotes and enhances the education and development of professional social workers who seek to improve social, economic and environmental conditions of diverse populations in Northeast Texas (Texas A & M University-Commerce, 2010).

Step 2

Step 2 is to identify short term, intermediate, and long term outcomes of the program that relate back to the department's mission. The short term outcomes of a program, for example, should relate to the resulting differences or changes due to educational activities such as coursework. Intermediate outcomes are target measures that show benchmarks toward meeting goals, such as setting a benchmark of 95% of all students becoming licensed within the first year following graduation from the MSW program. Finally, the central question of program success is related to the long term program outcome, "What impact is the MSW program having on individuals, agencies, communities, and the northeast regions of Texas?"

Outcomes and measurable outcome objectives are continually explored and evaluated by the faculty. The faculty, however, must set benchmarks for determining achievement of a target outcome. A benchmark is a target goal expressed in measurable terms, such as 75%, 80%, etc. An outcome benchmark might be what percentage of entering students can realistically be expected to graduate within two years. In other words, outcomes should be realistic, measurable, and an important way of determining program effectiveness.

Currently, the faculty is in the process of defining intermediate and long term outcome objectives for the program. Until now, most of the focus has been on curriculum rather than on total program evaluation. In part this is the result of realistic expectations to meet accreditation curriculum standards of the Council on Social Work Education (CSWE, 2010). However, setting goals and benchmarks in areas such as faculty development and retention, product development (using new technology in teaching), and partnerships with the community are our next priority. Tentative activities have begun in these areas though benchmarks still need to be set. For example, an intermediate outcome might be that 75% of faculty achieves tenure within six years of their hire date. One long term outcome for the program might be that 75% of faculty are tenured or in tenure track positions.

The MSW program has curriculum goals and objectives aligned with standards set forth by the CSWE. An example of these is included (see MSW program performance goals below). From these goals and objectives, faculty develop course syllabi and course assignments, field assignments, role plays, written interventions, film case studies, papers on assessment and treatment planning, and required field hours to all work in conjunction with departmental objectives. This assures that each class is covering the material that is required by CSWE and that the program addresses all of its goals and objectives.

MSW program performance goals. The following is an illustration of MSW program performance goals and objectives:

Goal 1: To provide students with the knowledge, values, and skills of advanced generalist practice.

- Objective 1: Students will demonstrate the ability to apply the problem solving process to generalist practice intervention with client systems at all levels.

- Objective 2: Students will demonstrate the ability to conduct advanced generalist interventions which take in to account the rural or urban practice context.

- Objective 3: Students will demonstrate the values and skills needed for autonomous practice.

- Objective 4: Students will demonstrate the knowledge and skills needed to provide leadership in social work organizations.

Goal 2: To promote the development and use of evidence-based practices consistent with social work values and ethics.

- Objective 1: Students will demonstrate an understanding of ethical and cultural considerations in the utilization of research to inform social work practice.

- Objective 2: Students will utilize appropriate research to select knowledge and methods appropriate to the rural/urban context of generalist practice with client systems.

- Objective 3: Students will demonstrate a commitment to lifelong learning to remain current with empirically based knowledge and skills.

Goal 3: To socialize students to the profession of social work.

- Objective 1: Students will demonstrate an understanding of social work values and ethics in interactions with clients and colleagues.

- Objective 2: Students will demonstrate cultural competency in practice with all types and levels of client systems.

- Objective 3: Students will demonstrate an understanding of the history and purposes of social work, and the current issues confronting the profession.

Goal 4: To promote the development of social policies and services to reduce the impact of poverty, oppression, and discrimination.

- Objective 1: Students will demonstrate an ability to critically analyze social policies.

- Objective 2: Students will demonstrate understanding of the strategies used to combat the effects of poverty, oppression, and discrimination on client systems.

- Objective 3: Students will demonstrate the ability to analyze and influence social policies and programs as these affect both rural and urban client systems

Step 3

Step 3 specifies the outputs of the program. The outputs are the activities of the program and participants in the program. Various activities of the program include courses offered, recruitment and retention of students, advising, faculty and committee meetings, continuing education for professionals, publications and presentations by faculty, and so on. The participants are the people we reach with what we invest and what we do. In the case of our MSW program this is primarily students, field agencies, and their clients.

The faculty is still in the process of identifying output benchmarks that are assessment tools to measure student learning and achievement of course objectives. An additional section addressing output benchmarks, "Program and Course Objectives Worksheet" (Figure 2) has recently been incorporated into a planning worksheet used to assure that class assignments and readings are derived from program goals and objectives. It takes time to measure whether or not tests and assignments actually measure student learning and if that learning has been generalized into practice abilities. One excellent place to measure the application of student learning is in field placements and later in the work setting as students begin professional practice.

Goal 1	To provide students with the knowledge, values, and skills of advanced generalist practice	Corresponding Course Objectives	Assignment - Outcome Measure	Benchmarks
Objective 1:	Students will demonstrate the ability to apply the **problem solving process** to generalist practice intervention with client systems at all levels.	Course#: Objective#:		
Objective 2:	Students will demonstrate the ability to conduct advanced generalist interventions which take in to account the **rural or urban practice context.**	Course#: Objective#:		
Objective 3:	Students will demonstrate the values and skills needed for **autonomous practice**	Course#: Objective#:		
Objective 4:	Students will demonstrate the knowledge and skills needed to provide **leadership in social work organizations**	Course#: Objective#:		

Figure 2. Program and course objectives worksheet used to establish MSW program goals and objectives.

As the program continues, it will be easier to measure how successful students have been in obtaining jobs, licensure, and becoming competent practitioners through longitudinal studies of program outputs. Recently faculty has added a Social Work Professional Day to serve alumni and social workers in the communities served by our program. On this day, continuing education credits are offered in areas such as ethics, child and family resilience, spirituality and social work, and other areas in which alumni have expressed an interest. Faculty also provides free workshops for foster care families in Northeast Texas. Figure 2 is the worksheet used to establish MSW program goals and objectives.

Step 4

Step 4 refers to the resources available for program development. Human resources should be considered as well as material resources. The faculty and staff are primary to the success of the program. Other resources are more practical such as classrooms, offices, materials, and money to support activities. Community partners such as the Community Advisory Council, field agencies, and field instructors are also critical resources to the ongoing success of the program. Resources that have been vital to the growth and maintenance of this program have been Title IV-E federal funds for student scholarships, and initial special funding from the Texas State Legislature.

Step 5

Step 5 includes influential environmental factors that may affect the program's success or failure. No program exists in isolation and the surrounding environment on all system levels must be taken into consideration both in planning and implementation. Many factors impact university departments. On the national level, the funding or lack of funding of social programs is reflected in the monies available in our state for programs such as Title IV-E. Also, the state legislature recently dealt with shortages by limiting funding for higher education. This resulted in fewer faculty members and increased workload as our new program was quickly growing. The university environment also impacted the social work department as changes in administrators and priorities brought about policy changes. For example, student graduate fees have gone up while scholarships have not increased at high enough rates to offset family concerns over supporting students in graduate study. This could affect recruitment of new students. Other environmental concerns that are internal include:

- How participants perceive activities' meaningfulness to them.

- How to reach students, agencies, and clients that reflect well on our program.

- Faculty and administration's awareness, knowledge, attitudes, skills, aspirations, and motivations to improve our program.

- Behaviors, practices, decision-making processes, and policies conducive to a productive environment.

- Social, economic, civic, and environmental support for our current program.

Step 6

Step 6 reviews assumptions made by the program that may enhance or hinder its success. The assumptions regarding the MSW program at Texas A&M University-Commerce (TAMU-C) were derived from the original needs assessment, part of the feasibility study that drove the creation of the MSW program. One of the department's major assumptions is that students will remain in northeast Texas; however, many recent legislative initiatives in Texas have decreased resources supporting universities, students, and social service funding. The next assumption is that in spite of recent tuition increases, the increase will not be significant enough at TAMU-C to keep students from being able to attend school. The projected increase for the 2011-12 school year is about 10%. However, the impact of this tuition increase is unknown at present. This is a realistic concern because the current student population is mostly derived from rural northeast Texas. It has already been difficult for some students to cover lower tuition fees.

Another assumption is that faculty pedagogy will help to create student sensitivity toward at-risk populations in northeast Texas. Students are taught how to write grants and how to organize communities to assist in program development. Although this knowledge may increase revenue for existing programs, state and federal funding may no longer prioritize the at-risk populations served by master level social workers in northeast Texas.

The Advantages of Using a Logic Model

A logic model can provide a visual representation of a program. It can depict program growth and development. It can also show the links between the resources, outputs and outcomes that are assumed when evaluating a program's effectiveness (e.g. Alter & Murty, 1997; Bickman, 1987; Chen et al., 1998; Renger & Titcomb, 2002). A logic model can give a clear picture of where the program is going that can be helpful in planning, and illustrate whether or not the program is accomplishing the goals set forth in the mission statement. Social service agencies and the social work profession are increasingly accountable to provide outcome measures of the effectiveness of their programs. A logic model is important because it:

- Gives a graphic representation of a program.

- Is a simple way to show relationships.

- Provides a means of measuring success of goals.

- Provides funding entities with results for public support.

- Meets licensing and accreditation standards for program planning and evaluation.

In an explanation about logic models, Taylor-Powell (2001) says that measurement is the only way we can determine success or failure. Likewise, if we can't determine success, it is hard to know when to give positive rewards, because one does not want to reward failure.

When we have clear measurements, we are able to recognize success and learn from it, as well being able to see failures and make corrections. When success is demonstrated with positive results, it is much easier to obtain public support (Taylor-Powell, 2001).

Conclusion

The processes used in producing a logic model helps programs to: (a) set a clear mission with an understanding of what is invested (inputs); (b) describe what programs will do, who will participate, and what environmental factors may come into play (outputs), and (c) determine the outcomes on three levels (short-term, intermediate, and long term) to measure success or failure. Rapid growth requires programs to constantly re-evaluate, make changes, and move quickly. This creates stress without constantly reiterating a clear conceptualization of the program. Using a logic model as a framework for program development and program evaluation can help keep a clear picture of how change affects the program's mission.

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