Examining Local Social Welfare Policy Implementation Using System Dynamics Perspective

Tsuey-Ping Lee
Assistant Professor
Department of Public Administration, Tunghai University
Taiwan, R.O.C.

Mailing Address:
181, Taichung-Kang Rd., Sec. 3
Department of Public Administration
Tunghai University
Taiwan, R.O.C.

E-Mail:
tping@thu.edu.tw

Cell Phone Number:
886 (country code)-9-12389626

Fax Number:
886-4-23593843

Professional Interests:
Social Welfare Policy, System Dynamics, Public Finance

Examining Local Social Welfare Policy Implementation Using System Dynamics Perspective

Abstract

The purposes of this study are (1) to introduce system dynamics as a framework for policy research; (2) to model local welfare policy implementation to obtain a deeper understanding of what factors cause the policy implementation system to behave unexpectedly; and (3) to provide suggestions for the future arrangement of policy implementation systems. To present a framework for exploring the implementation problems, this work provides a model based on three sub-models that combine insights from policy implementation theory, the system dynamics perspective, and qualitative data from interviews with local welfare policy makers and implementers. Findings of this study are as followed. First, Bureaucratic structure can strongly impact the behavior of implementation participants. Second, informal incentives should not be ignored in policy implementation because formal merit systems can only provide basic working incentives for bureaucrats. Third, how each implementation participant recognizes the communication results crucially influences implementation performance. Fourth, street-level bureaucrats do not necessarily welcome discretion.

Examining Local Social Welfare Policy Implementation Using System Dynamics Perspective

Throughout the last two decades, social welfare decentralization has made local governments crucial in welfare policy formulation and implementation. Local governments have increasing discretion to design service delivery systems, and contract out welfare programs to increase policy implementation effectiveness. Although non-profit organizations (NPO) are increasingly active in social welfare, it is important to remember that street-level bureaucrats are also critical. Street-level public servants are first line workers with opportunities to contact with needy people in their jurisdictions. Welfare recipients can view street-level civil servants as “the government”. Whenever such welfare recipients face a crisis and wish for government help, they generally seek assistance from street-level civil servants.

In Taiwan, social service delivery systems generally comprise the Department of Social Welfare (DSW) of the city government, the Social Affairs Section (SAS) of various district offices, and NPOs working on contract for the government. DSW formulates local welfare policies; designs service delivery systems; distributes local welfare resources; selects contractors; and delegates welfare programs to street-level public agencies such as the district SAS. Taipei and Kaohsiung cities comprise 12 and 11 districts, respectively. District offices are supervised by the Department of Civil Affairs (DCA), which occupies the same hierarchical level as DSW in

city government. In this case, SAS, which is delegated by DSW to implement welfare policies, is directly supervised by DCA rather than DSW. Interactions between DSW and SAS are governed by administrative regulations or guidelines. Based on these regulations, DSW generally has the authority to assess the performance of SAS in implementing delegated projects. If DSW is dissatisfied with SAS performance, DSW should ask the city mayor to end the delegation. The regulations also provide for rewards and sanctions related to the performance of SAS. However, the administrative regulations do not provide DSW with the authority to impose sanctions on SAS if the ineffective performance is caused by the inability of SAS. Therefore, inability can become a reason for SAS to reject assignments from DSW.

This study has three aims: (1) to introduce system dynamics as a framework for policy research; (2) to model local welfare policy implementation to obtain a deeper understanding of what factors cause the policy implementation system to behave unexpectedly; and (3) to provide suggestions for the future arrangement of policy implementation systems. To present a framework for exploring the implementation problems, this work provides a model based on three sub-models that combine insights from policy implementation theory, the system dynamics perspective, and qualitative data from interviews with local welfare policy makers and implementers.

The research results are derived from interviews with nine experienced civil servants in the

Department of Social Welfare (DSW) of both the Taipei and Kaohsiung city governments, as well as with ten street-level bureaucrats in the Social Affairs Section (SAS) of District Offices of both cities. There are 12 and 11 districts in Taipei and Kaohsiung City, respectively. This study selected the five districts with the highest financial stress from each city because fiscal pressure increases the problems in policy implementation. District financial situation is measured by annual budget per pupil.

Implementation Theory

Policy implementation is an evolutionary process (Pressman and Wildavsky 1973) that involves a series of actions intended to reach determined policy goals (Van Meter and Van Horn 1975). Since various actors are involved in complex implementation processes, the policy goals should not be set precisely, and thus implementers have greater discretion to implement the policy effectively (Ripley and Franklin 1986). Additionally, intergovernmental networks have been emphasized in the implementation literature of last two decades, demonstrating the importance of a cooperative relationship between the federal and state governments in policy implementation (Ripley and Franklin 1986; Rochefort and Cobb 1993). Goggin et al. (1990, 32) established a communication model for intergovernmental policy implementation, and stated that the critical factors in implementation are messages, message senders and message recipients. Based on this definition, policy implantation involves decoding and transforming messages into

daily routines (Goggin et al. 1990, 40). O'Toole (1995) focused on inter-organizational policy implementation, and clarifying influences on cooperation and coordination among organizations. O'Toole found that organizational incentive to collaborate is essential for successful policy implementation. One of the factors involved in maintaining such an incentive is the availability of resources for exchange by participatory organizations. How organizations involved in policy implementation exchange resources is the key determinant of how they interact with one another and thus maintain their collaborative relationship.

This study examines the process of local welfare policy implementation from three dimensions: communication, resources, and workload. These three features, which are related to managerial skills, are frequently used to examine whether management influences the job performance of street-level workers. Effective communication can be fundamental and crucial to collaboration among multiple actors, including policy implementers and their target groups (Grin and Van De Graaf 1996). Active and ubiquitous communication can boost mutual understanding among policy formulators and implementers. Downward communication quality affects perceptions and agreement of street-level workers with policy goals (Riccucci et al. 2004). Consistent communication thus is important for achieving goal congruence among participants. (Meyers, Riccucci, and Lurie 2001).

The resources possessed by street-level staff and how they allocate these resources have an

impact on their perceptions of policy goals (Riccucci et al. 2004). Resources include response time following policy changes, fiscal supports, and discretion. An agency implementing a changing policy may face challenges that can strongly influence policy outcomes (Long and Franklin 2004). Therefore, more response time can make agencies better prepared in advance of policy implementation. Supportive resources are particularly required to assist in local discretion in situations where front-line staff are unused to making the relevant decisions (Fletcher 2000). In such cases, front-line staff require more training before being permitted to use their discretion to ensure that their discretion is not in unintended or negative ways.

Workload can significantly affect policy implementation because front-line staff do not have an unlimited capacity for policy implementation. Street-level civil servants generally developed routines to deal with their daily workload (Lipsky 1980). However, once civil servants become used to existing routines, new assignments which increase their workloads can become challenges. Facing challenges in implementing new assignments, civil servants must choose the options that involve developing another routine or twist new assignments so as to make them manageable. Consequently, these chosen options do not necessarily follow or reflect the ideas of policy makers, because they do not necessarily fit the practical circumstances of civil servants.

Why System Dynamics?

Although evolved from the disciplines of operational research and general systems theory,

system dynamics has been applied as an analytical tool for studying organizational behavior and management for two decades (Richardson 1991; Senge 1990). Various characteristics of the System Dynamics approach are quite helpful for such study.

First, the System Dynamics approach can help to integrate large quantities of information and numerous variables into a single analytical framework which can clearly express the complex interdependence of local welfare systems. Local welfare systems and problems are so complex that it is impossible to understand them without using a multi-faceted model that reveals the complexity of the real world. This approach has two advantages when compared to the statistic-based approach for studying complex social systems. First, the model includes numerous variables and relationships that provide an overview of the welfare system. Therefore, this study is not limited to one or a few variables and relationships. Second, unlike the conventional statistical approach, the proposed model includes feedback mechanisms, time delays, and nonlinearities, and simultaneously accounts for complex interdependences and dynamic interactions among system components.

Second, the system dynamics approach is structurally oriented (Meadows 1980; Richardson and Pugh 1981). This approach is based on the premise that, as Richardson and Pugh (1981, 8) stated, “Dynamic behavior is a consequence of system structure.” When the system boundary is drawn and all the components required for generating problem behavior within the boundary are

contained, the possible causes and leverage cures of the problem are sought within this boundary. The focus is always endogenous rather than exogenous. This type of analytical tool not only provides a more complete picture of the targeted system, but also allows analysts to pinpoint the part of the structure that causes specific system behaviors.

Third, the diagram of feedback loops provides a good tool for communication among different professionals. Owing to system complexity and the limitations of language, it is difficult to accurately and completely verbalize a system story. In this study, the causal loop diagrams provided by system dynamics can easily depict system dynamics and complexity. Such diagrams provide a good tool for communication among policy stakeholders, including policy analysts, policy makers, and the public. To summarize, system dynamics provides a good communication tool for achieving a consensus prior to policy implementation (Forrester 1994, 247).

Critical Features of Policy Implementation

This section sheds light on the main features used in this study to analyze local welfare policy implementation. These features are communication between DSW and SAS, resources exchanged between both agencies, and workload of both agencies. Each feature is explored using the system dynamics perspective to obtain insights into how it affects policy implementation throughout the system.

Communication

Qualitative data from interviews demonstrate that that communications within each DSW and SAS are comprehensive and effective, yet communications between DSW and SAS are less frequent and effective. Both formal and informal communications are encouraged in DSW or SAS. At the level of policy formulation, DSW emphasizes team work, brain storming, and cross-level communication in addition to official circulars. According to interviewees from DSW, full discussions regarding the pros and cons of a welfare programs, cost-benefit analysis of a new policy, and alternative options of a new-initiated project are necessary. Program design is the next step for policy changes that require further communications regarding feasibility assessment and resource distribution. Policy change is generally followed by change in budget distribution among existing projects, particularly in circumstances of fiscal stress. In this case, advanced communications among project leaders and members are important for ensuring everyone in the agency realize the policy priority of DSW.

SAS, as a street-level implementing agency, has very open and smooth organizational communication channels. All the interviewees stated that the leaders of SAS encourage communications regardless of time and place. When street-level bureaucrats encounter problems dealing with clients, leaders of SAS frequently strive to help. Notably, both DSW and SAS stress informal communication in addition to formal communication methods such as documents,

circulars or official meetings. Informal communications can help improve understanding among team members. People can more easily express their true feelings when having a cup of coffee or a casual chat. Therefore, leaders in both agencies like to show their appreciation toward team members informally, such as by buying them a cup of coffee, bringing homemade cookies into the office, and so forth.

Communications between DSW and SAS are not active and effective. First, both agencies have different views regarding their communications. Interviewees from the DSW believe that interagency communications is smooth and frequent because DSW have tried their best to establish communication channels, such as panel discussions, conferences, and formal meetings. Notably, in the event of a policy needing to be changed, DSW generally initiates an official meeting inviting stakeholders including SAS's bureaucrats, employees of local welfare centers, and representatives of non-profit organizations to exchange information and discuss relevant issues. Interviewees from the DSW stated that a new policy would not be implemented until full stakeholder understanding was guaranteed. However, SAS interviewees viewed the function of the communication channels mentioned by DSW as being informative rather than communicative, since when DSW decides to adjust an existed policy, little room exists for street-level bureaucrats to provide suggestions, even if they are informed in advance of technical difficulties in implementation. Generally, DSW provides only vague responses to the suggestions

of SAS at various conferences or panel discussions. Since DSW staff usually consider themselves to be policy formulators and program designers, most practical problems should be solved at the front line.

Second, SAS staff may not even be informed promptly in the event of policy adjustments or the initiation of new policies, despite them being the major policy implementers. Occasionally, DSW may release information to the mass media before SAS. In such situation SAS staff are exposed to public criticism as they must deal with public enquiries yet only have the same sources of information available to ordinary citizens. The worst case occurred when DSW mailed official letters of policy change to welfare clients without notifying SAS first. In this case, SAS only learned of the policy change upon receiving the first enquiry call. These situations not only create communication problems between SAS staff and citizens, but also make SAS appear ineffective to the public.

One of the interviewees from SAS described the relationships between the two agencies as indicating the unhappiness of SAS staff with the partnership.

> "***We really need an appropriate and efficient communication mechanism with DSW. We are not under the supervision of DSW and are not their contractors. The two agencies are partners. DSW should not take our efforts as granted. Surely they should not presume that we must accept all of their assignments."***

From a system dynamics perspective, the communication mechanism between the two agencies impacts the collaboration between them. Figure 1 shows that the recognition of communication by DSW influences the willingness of its members to make improvements. The interview demonstrates that DSW believes the communications with SAS prior policy changes are adequate and informative. Therefore, technical problems remaining after communications should be solved by SAS. Additionally, DSW occupies a superior position to SAS in the bureaucracy, leading DSW staff to feel superior to SAS staff, and thus reducing the value they place on the suggestions of SAS staff and their willingness to make relevant changes. Perceptions of DSW staff regarding their authority over SAS can affect their willingness to communicate sincerely with SAS street-level bureaucrats. Arranging conferences and panel discussions does not guarantee effective communication. Effective communication means stakeholders are satisfied or at least fully understand each other and are willing to solve problems together. If street-level bureaucrats do not perceive any sincerity from DSW regarding their suggestions, the willingness of SAS to collaborate with DSW will decrease. Meanwhile, the communication results trigger two feedback loops regarding the willingness of SAS to communicate. The positive feedback loop illustrates that ineffective communication can make SAS staff pessimistic about future communications and thus reduce their willingness to communicate. Such a situation will further reduce the usefulness of communication. However,

the negative feedback loop shows that ineffective communication may also motivate SAS staff to wish for more communication, because they have to finish assignments from DSW eventually. In other words, to finish delegated assignments from DSW successfully, street-level public servants need to solve problems through further communications. This mechanism might be useful for improving the willingness of SAS to communicate, and thus may positively influence the communication results. However, from the interviews with SAS members, the positive feedback mechanism seems to be a stronger loop than the negative loop. The negative feedback mechanism is becoming the only mechanism for maintaining the basic willingness of SAS to communicate with DSW. Most SAS interviewees noted that the communications were rarely productive, while DSW interviewees had the opposite view.

[Figure 1 here]

Resources

The main resources that SAS provides within the implementation network are professional street-level staff, detailed information regarding needy clients under jurisdiction of each district

office, and trusts from frequently contacted clients. Without cooperation from SAS, DSW has to handle both policy formulation and implementation, increasing the workload of DSW staff. This point is revisited in greater depth below in the analysis of the workload issue. This section focuses on the resources that DSW offered to SAS for policy implementation. These resources include time, discretion, and financial support. Figure 2 identifies how the lack of these three resources creates more workload for SAS. SAS staff desire time to respond to changing policies. According to SAS interviewees, policy changes that occur with little or no notice significantly increase their workload. Besides routine daily tasks, lack of response time will reduce service quality and immediately increases staff workload making working overtime the only way to complete the work in time.

Street-level bureaucrats have limited discretion in performing their daily duties, such as examining applicant eligibility for diversified social services or welfare benefits, determining benefit levels under various regulatory circumstances, and so forth. Since welfare benefit eligibility is determined via a means test, SAS has no discretion in these cases. However, a tendency exists to increase the level of discretion of SAS, something that is not welcomed by SAS staff. According to SAS interviewees, daily routines in SAS are trivial and time consuming. Besides conducting eligibility examinations and responding to enquires, street-level bureaucrats sometimes work like social workers for clients seeking help. SAS interviewees stated that their

daily work was extremely trivial and time consuming. Clients may call them to complain about life, low quality of government social services, low benefits, and so on. For welfare service or benefit recipients, SAS is “the government” from which they can seek help in case of need. The already heavy workload makes SAS staff do not enjoy discretion in determining benefit eligibility because discretion means more work. If no strict guidelines exist for determining eligibility, SAS staff are forced to gather more information and use their judgment to assess applicant qualifications. Afterwards, if applicants are dissatisfied with the decisions of SAS, staff may have to spend more time on explanations. In this case, less work will be done and a backlog will accumulate.

According to the Taipei City Government Regulation number 02-02-2019, which provides guidelines on project delegation to district offices, DSW is responsible for providing staff and funding to district offices for administering delegated projects. This regulation was easily for DSW to follow only when the city government was not under fiscal stress. Once the city government began to suffer from fiscal strains, cooperation between DSW and SAS became increasingly difficult. However, following a long term delegation relationship between DSW and SAS, SAS seems unable to reject existing assignments despite the lack of financial support because DSW is no longer capable of handling projects that delegated to SAS for a long time, on the one hand, and also because it is inconvenient for local welfare clients to change the existing

channels they use for help. However, the limited budget available for SAS causes administrative problems such as a shortage of postage and overtime pay. According to the Administrative Process Law of Taiwan, SAS must ensure that applicants are well informed about application results for welfare services and benefits. Therefore, SAS must send official notification regarding application results to all applicants via certified mail. Lack of budget for postage has made complying with this regulation difficult for SAS, and thus staff have begun delivering official documents personally.

As shown in Fig 2, the shortage of overtime pay contributes to accumulated workload of SAS to create a positive feedback loop. Owing to the limited budget available for paying overtime, staff overtime hours gradually accumulated. These overtime hours can be compensated if staff take vacation leave. However, the unfinished work remaining increase with the vacation leave taken by SAS employees. If the overtime budget is sufficient to compensate for overtime hours, this reinforcing power of this loop can be mitigated. Clearly, the lack of budget available for SAS has created unexpected surprises in system performance.

[Figure 2 here]

Workload

Figure 3 illustrates how the accumulated workload of DSW and SAS connected and consequently, influenced the degree of collaboration between the pair via their collaboration willingness. Heavy workload may decrease SAS staff willingness to accept assignments. Such unwillingness to accept assignments can further increase if financial support from DSW is lacking. The willingness of SAS to cooperate with DSW contributes to interagency collaboration, which partially determines DSW workload. If interagency collaboration is low, the workload of DSW staff will be increased, in addition to their desire for collaboration. In this situation, DSW will delegate more projects to SAS, thus increasing the workload of SAS. The reinforcing feedback loop in Fig. 3 shows how heavy DSW workload triggers this feedback mechanism towards increasing workload for both agencies. Recently, the eligibility standards for welfare services and benefits have reduced. Lower eligibility threshold implies that more citizens are qualified for welfare services, and thus increases DSW workload. The situation worsens if SAS rejects new assignments or even tries avoid completing existing assignments for which funding is not available. These situations will definitely reduce collaboration, and thus negatively impact policy implementation performance.

[Figure 3 here]

What Makes the System Worse?

Figure 4 summarizes the entire system, and combines all of the subsystems shown above. The center of Fig. 4 demonstrates the willingness of SAS to collaborate, which is influenced by three factors, including accumulated workload of SAS, communication results, and the recognition of SAS of the need to collaborate. The accumulated workload of SAS is influenced by the resources provided by DSW (as shown in Fig. 2) and by tasks delegated by DSW (as shown in Fig.3). Both factors are involved in different positive feedback loops. Once these two loops are triggered, the workload of SAS staff can rapidly accumulate, thus reducing their willingness to collaborate with DSW. In this situation, two situations will worsen the system performance. Lack of financial support from DSW, and low eligibility standards for welfare services and benefits, markedly increase the workload of SAS and reduce the inclination of SAS to accept new assignments.

The communication results, as shown in Fig.1, also affect the willingness of SAS staff to collaborate with DSW staff. As illustrated in the positive feedback loop in Fig. 1, ineffective

communication will reduce the willingness of SAS to engage in future communication, further reducing the effectiveness of such future communication. As illustrated in loop A of Fig. 4, a better communication result improves the trust between DSW and SAS, and enables the development of a collaborative culture. Undoubtedly, a more collaborative network culture can help both agencies to communicate and understand each other better. However, ineffective communications will damage the trust between DSW and SAS, and thus lower the willingness of SAS to collaborate. Decreased willingness to collaborate as illustrated in loop B, will reduce interagency collaboration and therefore lower the likelihood of forming a collaborative network culture.

The willingness of SAS to collaborate is crucial in this system. The institutional design of local social welfare system makes SAS a key part of this system. As mentioned above, district offices are supervised by DCA, which occupies the same hierarchical level as DSW in both Taipei and Kaohsiung cities. Therefore, SAS can reject the new delegation of DSW owing to a lack of resources. SAS continues to work on several delegated projects without funding for three reasons. First, the special characteristics of social welfare policy have increased the humanity of street-level bureaucrats. Frequent contact with needy clients appears to stimulate a kind attitude from street-level bureaucrats. For example, one of the interviewees described seeing their work as a form of charity, something which motivated them even when the workload was very heavy.

Second, informal incentive in SAS is important for inspiring street-level staff to maintain working incentives. The workload of SAS becomes heavier when budget cuts make it almost impossible to pay overtime. Informal encouragement becomes an option when monetary rewards become limited. Generally, besides formal promotion, the leader of SAS inspires staff by using informal methods, such as workload sharing, treating staff to coffee, providing verbal encouragement, and so on. According to SAS interviewees, making all staff members believe that they are in the same boat is a key to maintaining high quality of team work. Such a belief helps create happy working environment. Third, the merit system still helps to keep the system running. The merit system is displayed as a negative feedback loop C in Fig. 4. In this merit system, DSW evaluates the performance of SAS in carrying out delegated projects. If SAS does not perform satisfactorily, SAS has to increase its efforts in collaboration whether voluntarily or involuntarily. In this situation, the degree of collaboration will be increased and therefore policy implementation performance will be improved. This compensating feedback loop is clearly the only official mechanism maintaining basic system operations.

[Figure 4 here]

Dialogue with Implementation Theory

Numerous factors influence policy implementation performance. Some believe that policy makers are the key to implementation performance (Edwards 1980; Sabatier and Mazmanian 1980; Van Meter and Van Horn 1975). Meanwhile, some others believe that street-level bureaucrats are the major determinants of implementation performance. How street-level bureaucrats view policy goals, how they handle discretion on routine tasks, and even how much they decide to dedicate to assignments are all critical influences on the success of policy implementation (Berman 1978; Elmore 1979; Hjern, Hanf, and Porter 1978; Lester et al. 1987; Linder and Peters 1987; Lipsky 1971; Weatherly and Lipsky 1977). The third approach of policy implementation integrates these two perspectives and believes that both policy makers and street-level implementers crucially influence implementation performance (Elmore 1985; Goggin et al. 1990; O'Toole 1986; 1993; 1995; O'Toole and Montjoy 1984; Sabatier 1986). Policy formulation and implementation are difficult to separate because of the dynamic nature of policy processes. Policy makers should discuss policy with those expected to implement it during policy formation to avoid difficulties in implementation. Furthermore, the degree to which policy implementers participate in the policy formulation process, and how policy makers respond to their opinions and suggestions, can influence their degree of agreement with policy goals. When

collaboration among multiple agencies is required for implementing specific policy, interagency interactions and network culture are vital factors related to implementation performance. Several findings of this study have implications for these perspectives of policy implementation.

First, bureaucratic structure can strongly impact the behavior of implementation participants. In this study, DSW is hierarchically superior to SAS, yet SAS is not under the supervision of DSW. The delegated relationship between two agencies thus is governed purely by a few administrative regulations. From the perspective of DSW, the administrative regulations appear to grant DSW higher authority over SAS since DSW is authorized to delegate local welfare projects to SAS and evaluate the performance of SAS. However, SAS conceives the interagency relationship as a partnership. The administrative regulations grant DSW the authority to sanction SAS staff only when they deliberately implement policy inappropriately. Furthermore, if DSW is not satisfied with the implementation performance of SAS, it has the power to withdraw delegated projects. However, this power normally cannot be exercised by DSW because DSW do not have resources to mange the projects by themselves. Obviously, both DSW and SAS have different perspectives regarding their collaborative relationship. Although DSW staff may claim that their relationship with SAS is based upon partnership rather than authority, tardy response (or no response) by DSW staff to the suggestions of SAS staff does not display the attitude of a partner. In fact, it is very difficult to consider their relationship a partnership. A partnership

implies that power is shared among participants and that their cooperation results from a series of negotiations (Elazar 1972, 3). In the case of DSW and SAS, there are no signs of the sharing of power because both agencies occupy different hierarchical levels within the bureaucracy. The relationship of SAS in relation to DSW is more one of "involuntary compliance". This situation jeopardizes policy implementation performance.

Second, informal incentives should not be ignored in policy implementation because formal merit systems can only provide basic working incentives for bureaucrats. Figure 4 reveals that the authority of DSW in evaluating the policy implementation performance of SAS is the only compensating feedback mechanism balancing the system. That is, this official merit system is a major mechanism for keeping the system operating as expected. However, when all the other factors discouraging SAS from collaborating with DSW indicated by the reinforcing feedback mechanisms, official merit system (the major compensating feedback mechanism) may be too weak to support the system. In this case, informal methods of encouraging working incentives in the organization become very important, particularly under fiscal stress. All the interviewees from SAS consider their organizational culture warm and inspiring. However, such an inspiring organizational culture does not ensure the same level of inspiring interagency network culture. It remains unclear if the informal incentives working within agencies can still work in interagency networks. At least, this study finds that the interagency relationship involves no informal

incentives.

Third, how each implementation participant recognizes the communication results crucially influences implementation performance. Obviously, DSW and SAS view the communication results differently. Communication is intended to provide clear and accurate information so that all the implementers can understand the policy details and working guidelines. When communicative participants have different expectations regarding communication results, it is difficult to consider the communication successful. Notably, ineffective communication reduces participant willingness to pursue further discussion.

Fourth, street-level bureaucrats do not necessarily welcome discretion. The literature on the bottom-up approach of implementation theory revealed that street-level bureaucrats are the key to successful policy implementation. Street-level staff not only can reshape policy goals during the implementation processes, but also can deliver services personally to meet client needs. Elmore (1978, 186-87; 1979, 604) even argued that effective policy implementation requires the discretion of street-level bureaucrats and local implementation agencies. Fletcher (2000) found that local discretion was warmly welcomed by front-line staff in his study on the policy implementation of the National Development Program of Britain. However, this study of local government in Taiwan obtained different findings from traditional bottom-up literature. First, under certain institutional design, street-level bureaucrats do not necessarily have discretion

regarding their daily routines, and second, such bureaucrats do not necessarily enjoy discretion if they have it. This article identifies two reasons for street-level bureaucrats to avoid discretion. Heavy workload may drive street-level public servants away from time-consuming tasks. In this sense, higher discretion implies an increased workload. Additionally, street-level bureaucrats are used to completing daily routines according to guidelines provided by higher authorities. Thus, increased discretion means fewer guidelines to follow. Street-level bureaucrats may have difficulty accustoming themselves to this lack of guidelines.

Summary and Conclusion

This study employed the system dynamics approach to identify the factors that improve and hinder the implementation of local social welfare policy. Although system dynamics is heavily dependent on quantitative data, this study believes that qualitative data can still work with the system dynamics approach. Through interviews, this work obtains an in depth understanding of how the local welfare system works and the views of bureaucrats regarding their relationship with each other. These qualitative data helped the author to conceptualize the system problems into several dynamic feedback mechanisms. Although the model has not yet been formulated, this study has derived several insights into local social welfare policy implementation, and has contributed to the theoretical dialogue. The on-going modeling effort focuses on quantitative data gathering, model formulation, model validity tests and policy tests. A valid model can be used to

develop leverage solutions for problematic system behaviors, and thus improve the chance of achieving expected implementation performance.

The generalizability of qualitative research is frequently controversial. The key concern is how such a conceptualized model can be applied to different circumstances. For policy implementation that involves multiple participants, this model can be used to examine how interagency collaboration influences policy implementation performance. For a policy implementation network under a semi-hierarchical bureaucratic structure, such as the example of DSW and SAS, this model serve as a reminder of the importance of suitable institutional design.

References

Berman, Paul. 1978. The Study of Macro and Micro implementation. *Public Policy* 26(2): 157-184.

Edwards, George C. 1980. *Implementing Public Policy*. Washington, D.C.: Congressional Quarterly Press.

Elazar, Daniel. 1972. *American Federalism: A View from the States*. New York: Thomas Crowell Co.

Elmore, Richard F. 1979. Backward Mapping- Implementation Research and Policy Decisions.

Political Science Quarterly 94(4): 601-616.

---. 1985. Forward and Back mapping. In *Policy Implementation in Federal and Unitary Systems: Questions of Analysis and Design*, edited by Kenneth Hanf and Theo A.J. Toonen, 33-70. Dordrecht: Martinus Nijhoff.

Fletcher, Roy. 2000. The National Development Programme: Policy Implementation in an Era of Welfare Reform. *Policy and Politics* 28(2): 163-178.

Forrester, Jay. 1994. System Dynamics, System Thinking, and Soft OR. *System Dynamics Review* 10(2-3): 245-256.

Goggin, Malcolm, Ann Bowman, James Lester and Laurence J. O'Toole Jr. 1990. *Implementation Theory and Practice, Toward a Third Generation*. Glenview, IL: Scott, Foresman/Little, Brown Higher Education.

Grin, John and Hank Van De Graaf. 1996. Implementation as Communicative Action: An Interpretive Understanding of Interaction Between Policy Actors and Target Groups. *Policy Scienc,* 29(4): 291-319.

Hjern, Benny, Kenneth Hanf, and David Porter. 1978. Local networks of Manpower Training in the Federal Republic of Germany and Sweden. In *Interorganizational Policy Making: Limits to Coordination and Central Control*, edited by Kenneth Hanf and Fritz W. Scharpt, 303-341. London; Beverly Hills: Sage Publications.

Lester, James P., Ann Bowman, Malcolm L. Goggin, and Laurence J. O'Toole, Jr. 1987. Public Policy Implementation: Evolution of the Field and Agenda for Future Research. *Policy Studies Review* 7(1): 200-216.

Linder, Stephen H. and B.Guy Peters. 1987. Relativism, Contingency, and the Definition of Success in Implementation research. *Policy Studies Review* 7(1): 16-27.

Lipsky, Michael. 1971. Street Level Bureaucracy and the Analysis of Urban Reform. *Urban Affairs Quarterl,* 6 (July): 391-409.

---. 1980. *Street Level Bureaucracy: Dilemmas of the Individual in Public Services*. New York, NY: Russell Sage.

Long, Edward and Aimee L. Franklin. 2004. The Paradox of Implementing the Government Performance and Results Act: Top-Down Direction for Bottom-Up Implementation. *Public Administration Review* 64(3): 309-319.

Meadows, Donella H.1980. The unavoidable a priori. In *Elements of the System Dynamics Method*, edited by Jorgen Randers, 23-57. Waltham, MA: Pegasus Communications.

Meyers, Marcia K., Norma M. Riccucci, and Irene Lurie. 2001. Achieving Goal Congruence in Complex Environments: The Case of Welfare Reform. *Journal of Public Administration Research and Theory* 11(2): 165-201.

O'Toole, Laurence J., Jr. 1986. Policy Recommendations for Multi-Actor Implementation: An

Assessment of the Field. *Journal of Public Policy* 6(2): 181-210.

---.1993. Interorganizational Policy Studies: lessons Drawn from Implementation Research. *Journal of Public Administration Research and Theory* 3(2): 232-251.

---. 1995. Rational Choice and Policy Implementation. *American Review of Public Administration* 25(1): 43-57.

---. 2004. The Theory-Practice Issue in Policy Implementation Research. *Public Administration* 82(2): 309-329.

O'Toole, Laurence J., Jr. and Robert S. Montjoy. 1984. Interorganizational Policy Implementation: A Theoretical Perspective. *Public Administration Review* 44(6): 491-503.

Pressman, Jeffrey L. and Aaron Wildavsky. 1973. *Implementation.* Berkeley, CA: University of California Press.

Richardson, George P. and Alexander L. Pugh III. 1981. *Introduction to System Dynamics Modeling with DYNAMO*. Cambridge, MA: The MIT Press..

Richardson, George P. 1991. *Feedback Thought in Social Science and Systems Theory*. Philadelphia, PA: University of Pennsylvania Press.

Riccucci, Norma M., Marcia K. Meyers, Irene Lurie, and Jun Seop Han. 2004. The Implementation of Welfare Reform Policy: The Role of Public Managers in Front-Line Practices. *Public Administration Review* 64(4): 438-448.

Ripley, Randall B. and Grace A. Franklin. 1986. *Bureaucracy and Policy Implementation.* Chicago, Ill.: The Dorsey Press.

Rochefort, David and Roger Cobb. 1993. Problem Definition, Agenda Access, and Policy Choice. *Policy Studies Journal* 21(1): 56-71.

Sabatier, Paul A. and Daniel A. Mazmanian. 1980. The Implementation of Public Policy: A Framework of Analysis. *Policy Studies Journal* 8(4): 538-560.

Sabatier, Paul A. 1987. Knowledge, Policy-Oriented Learning, and Policy Change: An Advocacy Coalition Framework. *Knowledge: Creation, Diffusion, Utilization* 8(4): 649-692.

Senge, Peter. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization.* New York, NY: Doubleday.

Van Meter Donald S. and Carl E. Van Horn. 1975. The Policy Implementation Process: A Conceptual Framework. *Administration and Society* 6(4): 445-488.

Weatherly, Richard and Michael Lipsky. 1977. Street level Bureaucrats and Institutional Innovation：Implementing Special Education Reform. *Harvard Educational Review* 47(2): 171-197.

Fig. 1 Communication between DSW and SAS

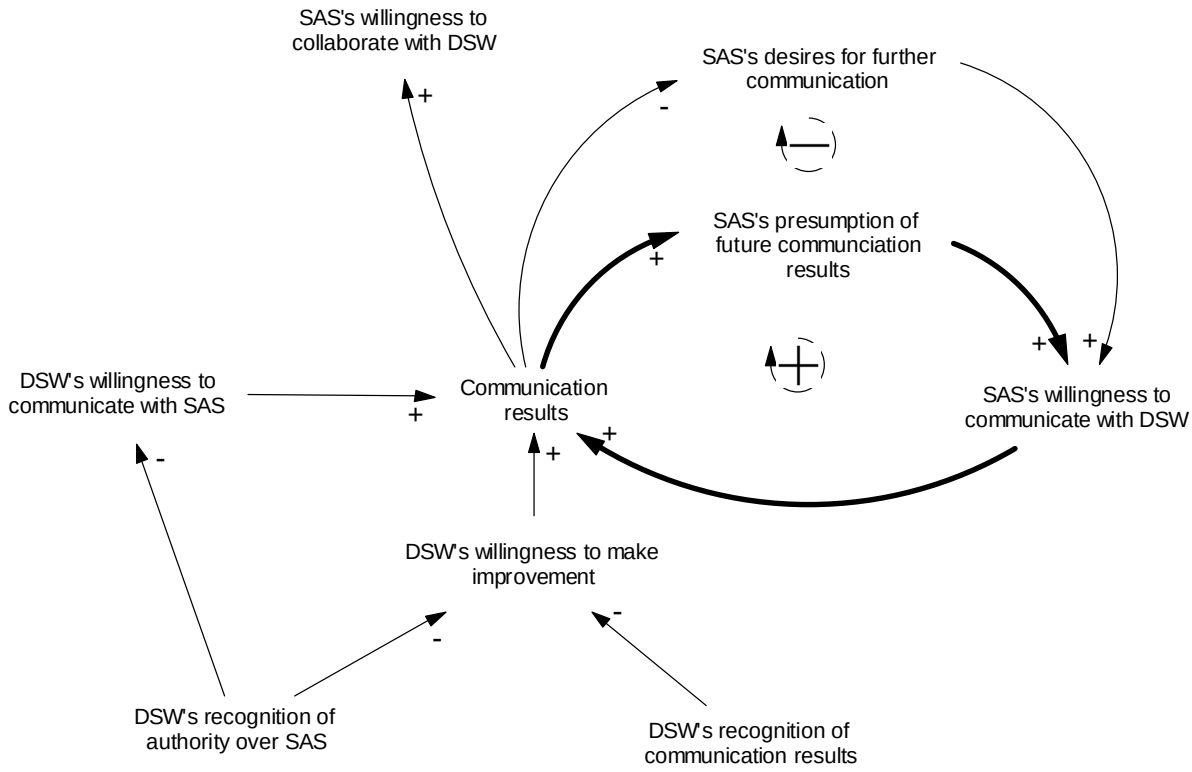

Fig. 2 Resources provided by DSW

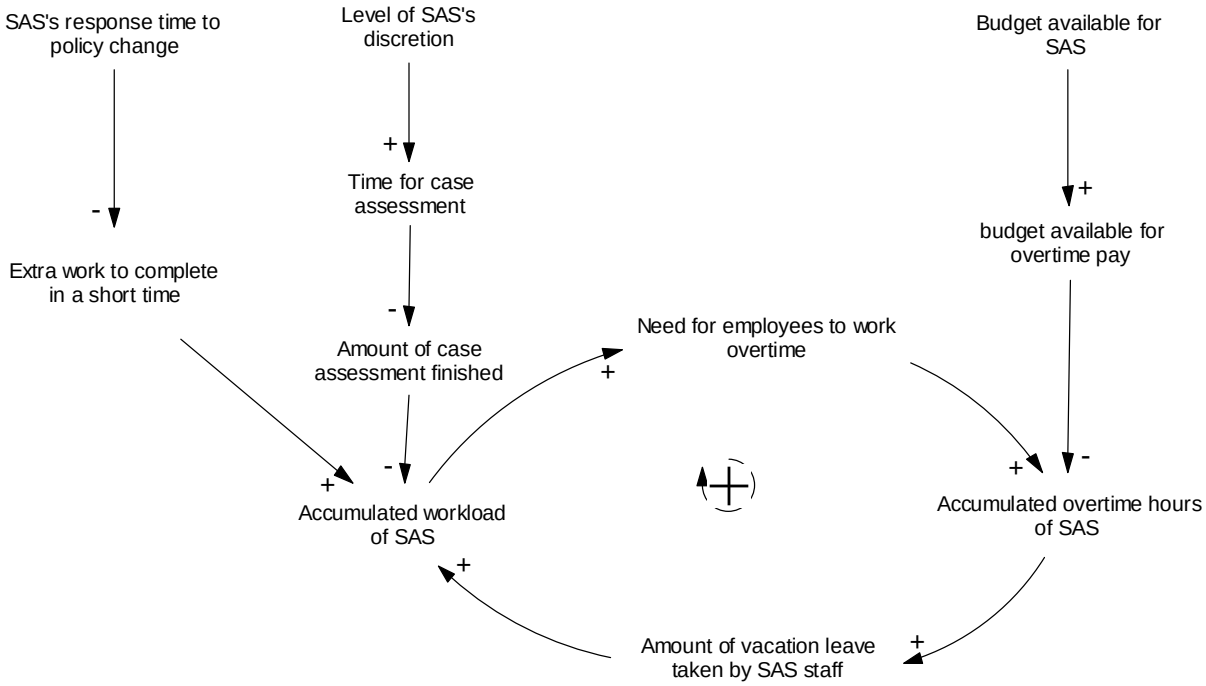

Fig. 3 Level of Collaboration between DSW and SAS

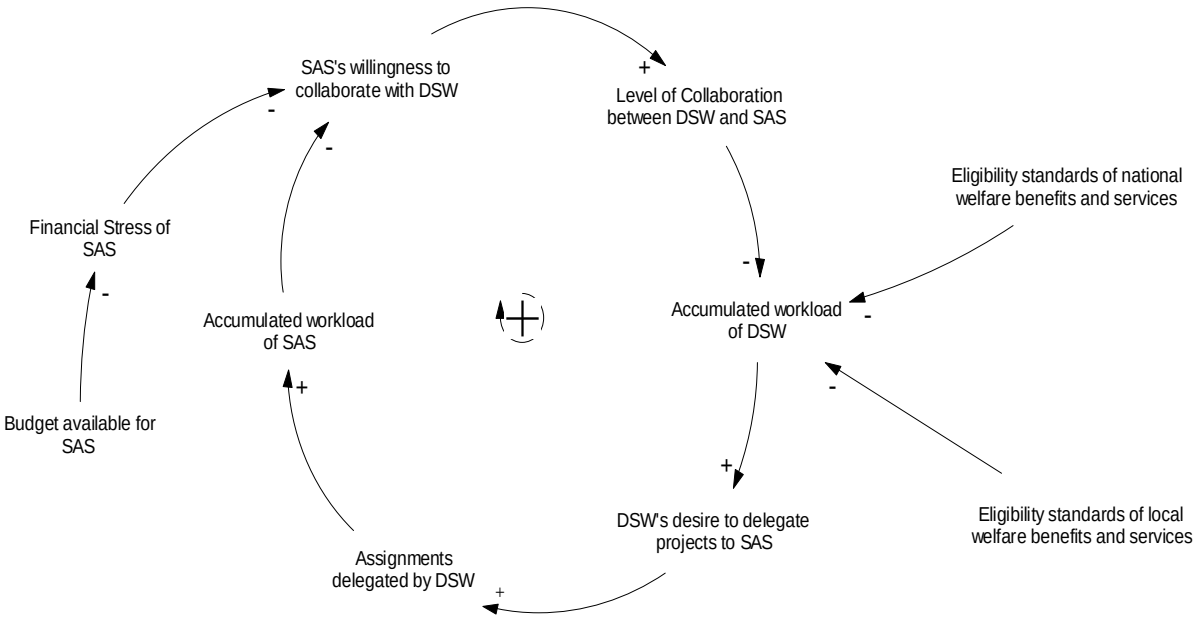

Fig. 4 Summary of the system