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Learning in the Public Sector: Evaluation of the SSA Title IV-E Intervention Program of Virginia Department of Social Services

Mohan P. Pokharel
Concord University

Niraj Poudyal
Kathmandu University

Nabin Baral
University of Washington

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Social service organizations in the US have recently come to realize that continuous learning is crucial to change their standard operating procedures (Cyert and March 1992) and culture (Mahler 1997) of improving effectiveness and legitimacy (Pham, Kankanhalli, and Ang 2008). Changes in legislation can provide an opportunity for learning in public sector organizations. The promulgation of the Government Performance and Results Act in 1993 required that social service organizations develop program improvement plans and report their performance. Social service organizations were fortunate to have program-based budgets until the promulgation of the Act because budgets were allocated based on the programs they had submitted (Mullen 2001). The Act demanded performance measurement and accountability from all federal agencies, including those that provide funding to line agencies. The federal agencies then demanded the same from the state and local agencies who sought federal funding. As such, social service agencies viewed the Act as an opportunity to improve standard operating procedures, develop program improvement plans, and measure performance. By doing so, the social service organizations could gain legitimacy and procure more revenues. However, simultaneously complying with the stringent performance requirements proved to be a challenge (Gruber 2004).

Social service agencies faced further challenges with a sharp decline in state revenues and consequent budget cuts for social services. While economic downturns adversely affect all businesses, social service agencies are particularly susceptible to the problem known as the *social service paradox* (Pokharel and Hult 2010). The simultaneous existence of an increased demand for social services and the diminished ability of the agencies to support those services create this paradox. Economic recession results in less revenue, prompting prevalent financial hardship among the populace and a higher demand for social services that providing agencies struggle to fulfill in the face of sapped resources. The Virginia Department of Social Services (VDSS) faced such a paradox when it suffered from state budget cuts vis-a-vis a higher demand for assistance from unemployed people during the economic downturn. How Virginian social service organizations responded to this adversity, learned the new rules of the games, and enhanced their performance were some questions that motivated us to undertake this study and critically evaluate the learning and performance of social service organizations.

In order to deal with this social service paradox, VDSS entered into a contract with Virginia Tech in September 2001 to create and deploy the Title IV-E Federal Resources Utilization Technical Assistance Team (FRUTAT) with the goal of helping the state boost its federal financial participation (i.e., penetration rate). Since the FRUTAT was the mechanism to implement the Penetration Rate Enhancement Program (PREP), hereafter we use the term PREP to refer to this group instead of FRUTAT for the sake of clarity and brevity. The early assumption was that the improper assignment of foster care cases by the Local Department of Social Services (LDSS) to the state funding category under the CSA had produced the low penetration rate and thereby increased financial distress within VDSS. Similarly, the portions of foster care cases that were classified as eligible for federal funding did not have proper documentation, resulting in a failing grade for Virginia. Thus, the PREP's intervention—providing training, conducting seminars, and reviewing cases onsite—focused on increasing the penetration rate in order to procure maximum federal revenues as well as ensuring the error-free assignment of foster care cases to federal funding through Title IV-E (Pokharel and Dudley 2010).

At first, the PREP focused on foster care cases that were considered ineligible to

Title IV-E to reassess whether they could be eligible in light of the current legal requirements. Thereafter, the PREP began reviewing cases that were then considered to be eligible in order to detect any inconsistency and absence of documentation stemming from policy and process errors. In other words, the PREP's intervention helped the LDSS correct the cases that were eligible for federal funding but assigned to state funding (Type I error) and the ineligible cases that were incorrectly assigned to Title IV-E but would invite potential federal penalties (Type II error). A major goal of the PREP intervention was to help the LDSS to correct both false negative and false positive cases while also boosting the penetration rate.

The existing lower penetration rate was attributed to the LDSS's lack of learning about the federal regulations and requirements. Unless and until LDSS staff members learn the proper rules and requirements of the federal government, the penetration rate will not increase. Although some other socioeconomic and institutional factors (such as higher parental income) might make some cases ineligible for federal funding through Title IV-E, there is no guaranteed way of increasing penetration rate without learning the appropriate rules of the game in terms of fixing the eligibility errors and documenting the actions according to federal requirements. As such, organizational learning in this context can be defined as the increase in the LDSS's capacity to take effective action (Kim1993; March 1991). Hence, the penetration rate can serve as a proxy for organization learning because it reflects the detection and correction of eligibility errors, which is the fundamental notion of organizational learning (Argyris and Schon 1996; Argote 2012). Given the dearth of empirical research in organizational learning due to the lack of reliable quantitative measures (Argote 2012; Lyles 2014), penetration rate appears to be a reasonable proxy of organization learning for the purpose of this study.

We used sequential explanatory mixed methods in the present study to better understand organizational learning in public sector organizations by converging numeric trends of the magnitude and contextual data, thereby explaining trends of organizational learning. In this study, quantitative data—the penetration rates—were collected through a state-owned information system on a monthly basis for 50 months. Thereafter, we conducted in-depth interviews with seven purposefully selected policy specialists and a focus group to explore the phenomenon and explain the quantitative results in more depth. Mixing of the qualitative and quantitative data occurred while drawing the inferences. In this study, a major advantage of the mixed methods design was that it provided an opportunity not only to measure the magnitude of organizational learning, but also to explore the contexts in which organizational learning takes place or not.

Theoretical framework
Organizational Learning

There seems to be a consensus that organizations can learn, but scholars have different views regarding the processes through which organizations learn and create knowledge for strategic purposes (Lyles 2014; Vera and Crossan 2004). One of the ways that organizations can learn is through recording experiences in some repository that over time ossifies into organizational routines that guide behavior (Schulz 2002). Loosely and broadly defined routines include organizational forms, rules, roles, conventions, strategies, structures, technologies, belief, frames, paradigms, cultural practices, and capabilities (Levitt and March 1988). Routine-based learning can reduce uncertainty, increase efficiency, and guide organizational behaviors in a desirable direction so that organizations can maintain their performance (March and Simon 1993). An organization's performance can be intricately linked to its level of aspiration and competitors' performance (Cyert and March 1992). The

main occasion for organizational learning (Weick 1995) arises from the wider variance between the current performance and the level of aspirations (Cyert and March 1992). When performance falls short of aspirations, organizations lower aspirations and leverage resources to increase their performance. However, organizations can become complacent when performance meets or exceeds aspirations (Shultz 2002).

Organizations leverage both tacit and explicit knowledge in the process of organizational knowledge creation (Nonaka 1994). However, routine-based learning cannot invoke tacit knowledge and hence is limited to using the explicit knowledge for learning and recording experiences into organizational memory (Huber 1991). Since learning relies on experiences, it might accumulate more favorable experiences with an inferior procedure at the cost of an unfamiliar but superior procedure with potentially high future payoffs (Levitt and March 1988). The development of routines occurs through the institutionalization of knowledge in organizations (Vera and Crossan 2004). The institutionalization of knowledge can happen at the individual, group, and organizational levels through the forward and backward feedback loops of intuiting, interpreting, integrating, institutionalizing, and amplifying the tradeoff between exploitation and exploration (Crossan, Lane, and White 1999; March 1991).

The advantage of routine-based learning is that it is independent of the individuals involved and can survive significant staff turnover and passage of time. Routine-based learning is well suited for a stable environment. The disadvantage of the approach, however, is that the routines are inherently backward-looking because they are formed through the interpretation of history, rather than in anticipation of the future (Levitt and March 1988). Therefore, routine-based learning can become a liability to organizations in a dynamic and volatile environment (Senge 2006).

The extant body of research suggests that another process by which organizational learning might take place is through the development of common understanding or a shared mental model. Mental models are the cognitive schemas and deeply held beliefs or internal images of how the world works and exert powerful influence on how people interpret the world (Kim 1993). An individual's belief system shapes his or her mental models. At the organizational level, a mental model is shaped by the core organizational values and interactions among the members (Barr, Stimpert, and Huff 1992). Organizational learning takes place when individual mental models dynamically transcend into a shared mental model in the organizational context. A shared mental model is superior to organizational routines because the model can recreate organizational standard operating procedure if needed, but recreating a shared mental model from the routines is almost impossible (Gherardi, Nicolini, and Odella 1998; Kim 1993). The development of a shared mental model within an organization can lead to better shared understanding of potential opportunities and challenges for the organization (Senge 2006).

Although both of the above organizational learning processes intend to increase organizations' effectiveness to better accomplish their short- and long-term goals (Levitt and March 1988; Nonaka 1994), the notion of the learning curve demands a direct relationship between learning and seamless performance. Since the learning curve measures the efficiency in operation and the result is expected immediately, this mode of organizational learning might be more appealing to practitioners (Schulz 2002). As such, practitioners might consider organizational learning to be a highly desirable and fairly achievable process that brings benefits to organizations (Argyris 1995; Garvin 2000; Gherardi 2009; Probst and Buchel 1997). However, identifying complexities associated with learning such as competency trap, defensive mechanisms, and learning disabilities deserves further attention (Levitt and March

1988; Argyris and Schon 1996; Senge 2006). Complexities might arise from many sources, such as the organizational context and structure, incentive systems, and knowledge transforming processes (Vera and Crossan2004; Nonaka 1994; Levitt and March 1988). Whether organization learning takes place by recording experiences and interpreting information or by ossifying a common mental model, it seems to start at the individual level and then transcend through a social process so as to be institutionalized at the organizational level. At times, knowledge can be "lost in translation," as it happens in role-constrained and opportunistic learning (Shultz 2002).

Learning Inhibitors in Organizations

Despite the aspirations, triumphs, and excitements about the prospects of organizational learning and its positive impacts on organizational performance, organizations may fail to learn sometimes due to confusions about the organizational reality and learning inhibitors manifesting from organizational structure and design (Senge 2006; Schulz 2002). Organizations often spend time and resources justifying their prior decisions and making sense of their actions (Weick 1995), seldom questioning the underlying basis of their problems and instead developing defensive mechanisms to resist changes (Argyris and Schon 1996). Similarly, learning inhibitors—such as the role constrained learning, audience learning opportunistic learning, and fragmented learning—diminish organizations' ability to learn (Kim 1993; Schulz 2002). Role constrained learning can prevent individuals from bringing their best to organizations because of the constraints created by the official role. Opportunistic learning happens when individual learning does not transcend to organizational leaning. Audience learning happens when a causal relationship of learning and performance is not clear and the chance is that some myth or faith gets the credit for serendipitous learning by the organization. In the case of fragmented learning, an organization is unable to reap the benefit of individual expertise because there is no mechanism for integrating the knowledge. Finally, superstitious learning takes place when the connection between a cause of an action and the outcome is not clear or is misattributed (Lave and March 1975; McGrath 2011).

Public sector organizations, however, have additional challenges in learning, given their constitutionality, higher accountability, and multiple constituencies (LaPalombara 2003). Public sector organizations must hold the constitutional values of fairness, justice, and inclusiveness, which might lead to compromising efficiency in learning (Hartley 2008). They are required to answer the public even for a small change in budgets, reducing the flexibility for learning (Hartley and Skelcher 2008). Finally, they have to satisfy several stakeholders, which might preclude the focus for learning (Betts and Holden 2003; Hartley 2008). The ideas developed above (i.e., the excitement about the prospect of organizational learning vis-à-vis the learning constraints) are tested here with a case study from the VDSS's Title IV-E penetration rate enhancement program.

Methods
Data Collection

We collected both quantitative and qualitative data to understand the complex reality of organizational learning in the public sector. The Department of Social Services uses the On-line Automated Services Information System Services (OASIS) to automate processes and information for child welfare programs and other social services. We queried the OASIS database to collect quantitative data regarding how many foster care cases were assigned to which funding source in each of the 132 localities (lowest administrative jurisdictions of the Department of Social Services in counties and cities) on a monthly basis. Because we used

data from September 2001 to March 2006, we had 132x50 localities x time observations. However, data were not available for four missing months.

We gathered qualitative data primarily through in-depth interviews of policy specialists, a focus group, and participant observation, which provided the context for and an in-depth understanding of the issues to explain the phenomenon. The policy specialists are the Title IV-E policy knowledge instigators for the Local Department of Social Services. They were employed by Virginia Tech under the aforementioned arrangement between Virginia Tech and the VDSS and were sent to the Local Department of Social Services to provide seminar, training, and on-site case reviews. We conducted in-depth interviews with seven purposefully selected policy specialists, who had a combined experience of more than 100 years in the broad field of social services and specifically in the child welfare domain. Participants were selected to maximize the diversity of information we expected to gather and the efficiency in conducting interviews. More than 100 years of combined experience can be considered a quality indicator because the complexity of social services and a proper intervention require a fuller understanding of the policy (Wamsley and Zald 1973), which is more likely when staff have sufficient experience. Because of the policy specialists' substantial experience and professional roles as child welfare workers, supervisors, and mentors at the Local Department of Social Services, they represented the voice of localities. Interviews were conducted one-on-one and in-pairs for about 30-45 minutes asking open-ended questions followed by probes regarding the perceptions of the LDSS toward the policy specialists and the VDSS. Because two policy specialists used to visit the assigned localities together, the 'in-pair' interviews were expected to reveal dyad dynamics (Strauss and Corbin 1998), as people behave differently in the presence of other individuals.

A focus group was held with 10 officials (eight policy specialists, one supervisor of the specialists, and one director of the overall program) to collate different perspectives related to the PREP. The ground rules were set to encourage all participants to share their perspectives, arguments, and counterarguments. The insights gained from in-depth interviews were used to frame the questions for conducting the focus group. Answering the question in isolation or in pair was a completely different experience for them than discussing a topic in a group setting. The focus group discussion allowed us to capture many deeper insights and collective wisdom, which would have been impossible to elicit without providing them an opportunity to listen to each other and argue for their positions.

The first author was involved in the project from the beginning to the end. His interaction with policy specialists, the VDSS, the LDSS, the rest of the project team, and with the university authorities allowed him to develop a unique vision of the project implementation and organizational learning dynamics in the LDSS. His first-hand experience in the project helped to put the results in perspective and facilitated their interpretation.

Modeling the Quantitative Data

We built regression models of the time-series data to gather evidence of organizational learning in the public sector. In this case, the response variable was the penetration rate, which was the proportion of federal budget for the Title IV-E program. The penetration rate for an individual locality $i = 1, 2, 3\ldots132$ at time period $t = 1, 2, 3\ldots50$ is denoted by R_{it}. The monthly data on R_{it} ranged from 9/1/2001 to 3/31/2006 with four missing observations. For the given time period t, the values of R_{it} were suspected to be independently and identically distributed, so that estimating their mean was statistically meaningful. Here, independence means the penetration rate of one locality does not depend on that of others. The identically distributed assumption means that the penetration rate observes the same

probability distribution among the 132 localities. Large non-regular cycles in the t-plot of R_{it} showed the positive time dependence of the penetration ratio (Figure 1). In other words, the penetration rate was highly persistent in nature, which implied that R_{it} depends positively on R_{it-1}. To get rid of the dependence observed in the t-plot, the growth rate of R_{it} (log difference) was calculated and subsequently used for modeling. As seen in Figure 1, three structural breaks were apparent in the data, so two dummies were used to model the data properly.

Although R_{it} seemed to be increasing over the period, once its growth rate Y_{it} ($\ln (R_{it})$ $- \ln (R_{it-1})$) was plotted, the average growth rate was observed to be almost constant around zero. Hence, the positive growth seen in R_{it} can be deemed to be the result of positive dependence and the time period considered for analysis. For observations beyond the current sample period, one would expect R_{it} to decrease.

We then computed the following means of R_{it} for each t = 1, 2, 3… 50 as follows: $R_{mt} = \sum_{i=1}^{132} R_{it}$

Starting with a coarse-grain analysis, we explored whether the mean of state-level aggregations ($R_{mt} = \sum_{i=1}^{132} R_{it}$) varied across time. Although we initially estimated a model by assuming the same coefficients for all the localities, we suspected that the results could be confounded and distorted due to apparent spatial heterogeneity. The near-zero average growth rate might not provide conclusive evidence because positive learning outcomes might cancel out negative learning outcomes while aggregating. To test this assumption, we then conducted a finer grain analysis using the following Student's *t* heterogeneous panel model for each of the 132 localities:

$$Y_{it} = \alpha_i + \beta_{1i} t + \beta_{2i} t^2 + \gamma_{1i} D_2 + \gamma_{2i} D_3 + u_{it}$$

Where, $u_{it} \sim$ St IID (0, σ^2; df = 3), i = 1, 2, … , 132, t = 1, 2… 50

$Y_{it} = \ln (R_{it}) - \ln (R_{it-1})$; R_{it} = penetration rate; $D_2 = 1$ if $10 < t < 34$, otherwise 0; $D_3 = 1$ if $t > 34$, otherwise 0. If β_1 and β_2 turn out to be statistically significant, then there will be some evidence of learning across time. If the effect of time is non-linear, β_2 will also be statistically significant. Similarly, significant γ's would indicate the presence of structural breaks at the specific time defined by D_1 and D_2.

A major advantage of the above model is that the Student's t distribution with its fat tail is expected to model outliers like observations that might not be captured by models assuming normal distributions. By assuming different coefficients (parameters) for each locality, we expected the model to capture the difference between these localities. Dummies were used to capture the structural breaks seen in exploratory data analysis. We also conducted some diagnostics for testing whether the model's assumptions were satisfied. Because no systematic patterns in the residuals were detected, the model was most likely to be specified properly.

In the aggregate model, each locality carried equal weights irrespective of the size; however, this was not the case with individual models, which not only captured the granularity at the individual locality level, but also took care of the scaling effects that might arise because of the size. The maximum likelihood method was used to estimate the model with the help of the *hett* package in R following Taylor and Verbyla (2004).

Exploring the Qualitative Data

Qualitative data analysis was conducted in sequential stages. At first, transcripts of in-depth and in-pair interviews were thoroughly read to examine the participants' responses to major quantitative results shown to them in graphs and charts during the interviews. All the relevant information that might help to explain the observed volatility was coded. Because the first round of quantitative and qualitative results were shared with the participants, the

transcript of the focus group was expected to synthesize major reasons given to explain the observed volatility. We paid more attention to the focus group transcript for analysis. The codes developed at the first stage were used and new codes were developed to summarize the relevant information contained in the focus group transcript. Based on the conceptual similarities between the codes and insights gained during the data analysis process, six major themes emerged from several categories that were used to organize the codes (Miles and Huberman 1994; Strauss and Corbin 1998).

Results

Magnitude of Organizational Learning

We first modeled the aggregated penetration rates for the 50 time periods. The model predicted the growth rate of the penetration rate quite well, as there were no systematic overestimations or underestimations in the projection of data points (Figure 1). As per the model, the average growth rate of the penetration rate was positive through the first eight months of the intervention (i.e., time period $t = 8$). Then, the penetration rate declined continuously for 23 months, until the time period $t = 31$. After that, there was a sharp increase in the growth rate of the penetration rate for six months; the penetration rate grew rapidly until the time period $t = 37$. Finally, growth of the penetration rate fell into the negative quadrant after 37 months. The growth rate varied between different structural breaks (Figure 1). It was around 5% at the beginning of the intervention, reached a maximum of around 16% in the third year, and dropped below -5% towards the end of the program. Given the high volatility in the response variable, there was no conclusive evidence for organizational learning in the coarse grain analysis.

Figure 1: Penetration rate of access to federal funds (Level) and its growth rate (Growth Rate) over the five-year period from September 2001 to March 2006.
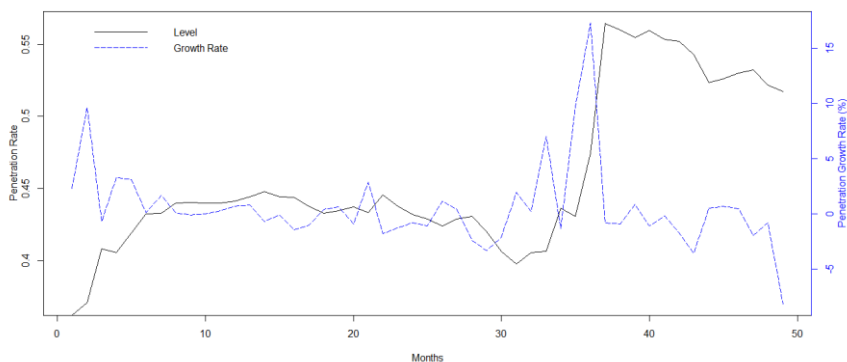
Only 8 of 132 localities (5 positive and 3 negative growth values) had statistically significant coefficients for the trend (Table 1). The positive signs showed the evidence of learning and the negative signs showed the lack of learning by the localities. A significant t value meant that the growth rate of the penetration rate was significantly changing with respect to time. The coefficients of t^2 were very small in magnitude and appear as zero in the table due to rounding; however, they were statistically significant. These coefficients were included only for the purpose of statistical adequacy, but they hardly had any substantial interpretation.

Table 1: Summary of beta coefficients with standard errors (in parenthesis) of linear regression.

County	Constant	t	t^2	D_2	D_3
Alexandria		0.008 (0.003)	0.000 (0.000)	-0.076 (0.031)	
Appomattox	0.242 (0.079)	-0.038 (0.011)	0.000 (0.000)		
Bedford City					0.148 (0.066)
Bedford Co.	0.104 (0.037)				
Bland					0.434 (0.191)
Craig	-0.349 (0.061)	0.041 (0.009)	0.000 (0.000)	-0.273 (0.089)	-0.431 (0.129)
Giles		0.032 (0.013)		-0.371 (0.136)	0.436 (0.197)
Greene	0.278 (0.083)	-0.025 (0.012)			
Lee	0.050 (0.022)				
Martinsville		0.023 (0.009)	0.000 (0.000)		
Mathews		0.021 (0.009)	0.000 (0.000)	-0.278 (0.092)	-0.274 (0.134)

Page			0.152	0.237
			(0.074)	(0.107)
Petersburg				0.184
				(0.076)
Prince George				0.327
				(0.093)
Rockbridge		-0.014	0.000	0.195
		(0.005)	(0.000)	(0.078)
Shenandoah	0.122			
	(0.052)			
Staunton				0.210
				(0.103)

As indicated by the coefficients of D_2, Y_{it} fell below the trend in the second period as compared to the first period in 4 out of 132 localities. Similarly, the significant coefficients of D_3 revealed that 8 out of 132 localities had positive growth in the third period as compared to the first period. The significant positive coefficient of the constant term and t indicated that some learning existed and the growth rate was deemed to be accelerating only in few localities because their t^2 coefficients were statistically significant. While there were only a few cases that showed positive learning outcomes, there was no statistical evidence of learning for more than 93% of localities. At the fine grain analysis as well, there was hardly any statistical evidence for organizational learning.

Constraints for Organizational Learning
The results of qualitative data analysis revealed six factors that served as a barrier to learning in public sector service organizations in Virginia.

Complex organizational and management structure: Almost all participants brought up the issue of organizational structure during discussions and agreed that the current organizational structure of the state supervised, locally managed, and partially federally funded foster care system was a very complex organizational system. They acknowledged that the present system was costly and inefficient, but it could be the only way to get local inputs into the system and facilitate parents' interactions with the local agencies. Participants reported not being able to discern at what level accountability should be assigned when all three levels of government were involved.

Economic disincentives: Participants opined that Virginia had a unique formula to distribute Title-IV funding based primarily on the level of income of localities instead of the prevalence of child welfare cases. In their view, requiring the LDSS to switch the cases served as an unfunded mandate for localities, causing resistance and a push back from the localities.

Staff turnover: We came to realize that most of the eligibility workers, who had to determine the funding sources to support children who came to foster care, were the least paid and most neglected group in the foster care system. Low pay and less control over their own work environment were the reported reasons for a rapid staff turnover. As reported, there was no mechanism to transfer individual learning to organizational learning nor for the system to capture and retain learning, which made the LDSS's knowledge base susceptible to staff turnover.

Constitutionality: In the participants' view, the constitution itself made the organizations less agile, ambidextrous, and nimble, thereby inhibiting their abilities to learn. They thought that the program goal was broader without a specific focus on certain areas. In their view, public institutions had the responsibility to run any program while keeping the constitutional aspirations and limitations in mind.

Accountability: The mandate to be accountable to a larger society for every action rendered organizations slow to change, inhibiting their learning and rapid adaptation. Many participants expressed that the expected level of accountability in this case was much higher because the program was instituted to provide services to vulnerable members (children) of society.

Multiple constituencies: The participants reported that serving multiple constituencies was a major constraint for learning because the program was designed to serve several stakeholders, such as child advocacy groups, human rights groups, and guardian groups, at times gridlocking the organizational progress and learning. More often than expected, there were direct conflict of interests; for example, resources constrained state facilities, and comfort-seeking citizens had rare meeting of minds. When there was divergence of interests, optimizing the interests of all stakeholders and satisfying all constituencies was a daunting, if not impossible, task.

A few additional insights emerged during the focus group discussion. First, one of the critical components, the finance division, was not represented in the program. This exclusion made it difficult to implement the program, mainly because of coordination issues. Second, the state and federal governments used a standard framework to implement the program, which in the participants' view showed a lack of understanding of the local organizational structure, process, and culture.

Discussion

The quantitative results could not produce statistically significant evidence of learning in the penetration rate enhancement program (PREP). The penetration rate—a proxy for organizational learning—remained more or less the same throughout the program. Had practically quantifiable learning occurred in those organizations, the penetration rate would have increased substantially even after the intervention program ended. Nevertheless, the qualitative results allude to the development of common cognition among different workers, an increase in trust levels among stakeholders, a weakening of divisional silos, and a passing of federal audit that can be related to organizational learning. But these attributes do not provide a quantifiable measure of organizational learning. For example, the program passing of federal audit would not be an undisputable measure of organizational learning because it could have happened with a constant or even falling penetration rate. Had organizations learned, the penetration rate would have increased and the statistically significant result would

have reflected evidence of learning. Virginia could have increased the penetration rate above the national average (60%) had it really learned from the intervention. In essence, this empirical research could not produce any statistical evidence of organizational learning under rigorous scientific scrutiny. Therefore, any claim of program success can be considered façade learning (Pokharel and Hult 2010). Façade learning describes a situation when the perception is divorced from the reality, reflecting the gap between the espoused theory and the theory in actual use (Argyris and Schon 1996).

What prevented learning and retention of knowledge in the PREP? This study found three major factors that hindered learning in the public sector—complex organizational and management structure, economic disincentives, and staff turnover—in addition to previously identified learning constraints such as constitutionality, multiple constituencies, and higher level of accountability (LaPalombara 2003). The foster care management system is plagued by organizational complexities and structures, as the system consists of different layers of governments (Pham Kankanhalli and Ang 2008). By virtue of the design, the system dilutes proper accountability and creates a situation akin to the 'paradox of distance' (Cook 1996). The localities did not see the merits of action of federal and state governments and vice versa—not because they were inferior, but due to the distance created by hierarchy their scope of vision diminished. At times, this situation led to a practice of pointing fingers at each other, rather than assuming responsibility. Even the few localities that have shown some improvement in the penetration rate for a while did not sustain it, because the effort put in learning was perceived as doing a favor to the state rather than performing their duties.

It appears that the lack of a proper incentive system was a major hindrance for learning in the LDSS. There were no incentives for localities to convert cases from CSA to Title IV-E because the additional revenues generated by such efforts would accrue at the state level. Virginia has a unique formula to distribute Title IV-E funding based primarily on the level of income of localities instead of the prevalence of child welfare cases and their proper assignment to appropriate funding sources. Such a centralized revenue distribution system and the lack of direct compensation for the efforts may sound like unfunded mandates for the localities, hence prompting a push back from the localities against switching the cases at their expense. If the foster care children are eligible for the Title IV-E program, the federal government reimburses the maintenance expenses—food, shelter, daily supervision, school supplies, clothing, reasonable home visit expenses, and a portion of administration and training expenses related to foster care. However, converting the foster care child from state funding sources to federal funding sources requires significant staff time and administrative work without any direct incentive to the localities. While there is no cap on the amount that a state can draw from the federal government under the Title IV-E program, failure to secure necessary documentation in a timely manner results in foster care cases becoming ineligible for funding. Even more critical are the misplaced cases for federal payments because the false claims for reimbursement invite federal financial penalties if corrective measures are not taken within the given time period (Gruber 2004). The absence of direct economic incentive might have inhibited the switching of cases and might have consequently retarded the learning. An incentives system can stimulate individual learning in organizational settings (Luthans 1998). A distinction should be noted that individual learning is necessary, but is not in itself a sufficient condition for organizational learning (Shrivastava1983; Kim 1993).

A rapid turnover of eligibility workers had adverse consequences for learning in the LDSS. In most instances, organizations lose both the tacit and explicit knowledge when staff members left (Nonaka 1994). The rapid turnover of staff can disrupt the social process that is required for the development of shared mental models and thus hinder learning at the organizational level (Gherardi 2009; Wegner 1998; Barr, Stimpert, and Huff 1992). The literature is fraught with the need of interaction processes for learning to be institutionalized (e.g., Crossan, Lane and White 1999). Shared mental models can be developed through the following four knowledge conversion processes: (1) Organizational actors convert new tacit knowledge through *socialization,* i.e., working in the same environment and building worldviews, mental models, and mutual trust. (2) They crystallize the tacit knowledge into explicit knowledge by the process of *externalization* through the sequential use of metaphor, analogy, and model for sharing it with others. (3) Actors collect explicit knowledge from different sources and then combine, edit, or synthesize to form new explicit knowledge in order to disseminate among organizational members in the process of *combination*. (4) Individuals absorb explicit knowledge created and shared by an organization to build their tacit knowledge bases through interaction, experimentation, and 'learning by doing' in the process of *internalization* (Nonaka, 1994).

The lower level staffers in the LDSS showed a genuine desire to learn despite the lack of a favorable group and supportive organizational environment for learning. But their desire to learn and serve might have been trumped by economic incentives and career advancements in other sectors. When the situation requires bypassing some organizational routines to solve problem on the spot, knowledge that only serves the purpose of individual advancement will be generated (Kim 1993; Schulz 2002) because it will be neither codified nor disseminated to the entire organization. The knowledge generated this way walks out of the door when those people leave the organization. This was the case in the PREP as the learning resided in the lower level of organization and rapid staff turnover at the eligibility workers' level evaporated what little organizational learning was occurring in the LDSS. Opportunistic learning also seem to have taken place in the LDSS, as the staff need to take immediate actions for children's wellbeing and to also protect their privacy rights, which make it necessary for the staff to learn but not to codify the experience at the organizational level.

As suggested in the literature, the public sector has additional factors that can impair learning, such as constitutionality (LaPalombara 2003), higher level of accountability (Hartley and Skelcher2008), and multiple constituencies (Betts and Holden, 2003; Hartley2008). As the public institutions are the fundamental pillars to implement the spirit of the constitution, normative considerations can outweigh the instrumental logic and economic rationality in some situations. Even if objectives are clear and the desirability of the outcome is agreed, normatively driven questions arise over the method of policy achievement (LaPalombara 2003). Although the inclusive, integrative, and non-excludable nature of the constitution assures fairness both in the process and outcome, it adds tremendous amount of inefficiency in the public sector (Hartley 2008). Because the public sector is more concerned about delivering services effectively rather than efficiently, the gain in efficiency might not be a good measure for organizational learning (Argote 2012; Hartley and Skelcher 2008). The

findings of this study corroborate the aforementioned three factors that impaired learning in the LDSS.

The mixed methods approach in this research helped to uncover the complex reality of Title IV-E program implementation and some learning constraints in public sector organizations not reported before. The counterintuitive results would have been only partially understood had we used either a quantitative or qualitative method. The methodological pluralism of mixed methods research provided an opportunity for the whole truth to come out. Because the mixed methods approach provides a better understanding of research problems than either a qualitative or quantitative approach alone, it frequently yields superior results (Johnson and Onwuegbuzie 2004; Creswell and Plano Clark 2007).

Conclusions

Although public sector organizations may accomplish their administrative goals, they can fail to learn during the process of achieving those goals. Given their mandate and accountability, learning can further be hindered in public sector organizations because of complex organizational structures, economic disincentive, and quick staff turnover. The use of penetration rate as a proxy measure for organizational learning can be seen as a limitation, but this was the only quantitative measure available for this study. Also, there might be other factors that could have explained the phenomenon better. Nevertheless, the results can be applicable in examining learning in other contexts. The study contributes to organizational learning theory by highlighting the constraints for learning in public sector organizations and informs practitioners about critical processes that should be addressed while designing any learning intervention program.

Acknowledgments

Authors' Biographies

Mohan P. Pokharel, PhD, is an Associate Professor of Management and the Shott Chair of Entrepreneurship in the Division of Business at Concord University, Athens, WV. His work has appeared in numerous academic journals and his teaching and research interests encompass organization theory, entrepreneurship, and strategic management. More specifically, his research aims to build an understanding of the role of organizational learning in gaining competitive advantage and organizational legitimacy. Furthermore, he is interested in understanding the dynamics between entrepreneurial ecosystem and economic development. He has presented his research in various regional, national, and international conferences.

Niraj Poudyal is a Senior Data Base Expert in Disability Research Center at Kathmandu University School of Arts, Nepal. He teaches econometrics and macroeconomics at the school. He is interested in empirical modeling, misspecification testing, Student's t VAR, macroeconomic and financial modeling. He is currently working on areas such as statistical adequacy of dynamic stochastic general equilibrium models, education equity index and

distribution of visual disability in Nepal. He has a Master's degree in Economics (Tribhuvan University, Nepal), a Master's degree in Economics (Virginia Tech, USA) and a Doctoral degree in Economics (Virginia Tech, USA).

Nabin Baral is a Research Associate in the School of Environmental and Forest Sciences at the University of Washington, Seattle, USA. He is interested in human dimensions of natural resource management, organizational learning, resilience of social-ecological systems, community-based conservation, sustainable tourism and protected areas management. His research focuses on deciphering the intricate linkages between nature and society through the organizational and institutional lenses. He has published in various academic journals and serves as a reviewer to several journals. He has a Master's degree in Ecology (Tribhuvan University, Nepal), a Master's in Environmental Science (Florida International University, USA) and a Doctoral degree in Forestry (Virginia Tech, USA).

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