Design conditions for learning in community service contexts

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Summary   In this study, we investigated team-based community service projects as action learning initiatives designed to facilitate two learning outcomes: community learning (knowledge of social, cultural, or economic issues) and personal learning (self-awareness of managerial attitudes and abilities). We developed hypotheses to predict critical input conditions for action learning that promote community and personal learning. We tested these hypotheses with data collected from 381 MBA students and their team leaders who participated in a variety of community service projects. Results demonstrated that design conditions (task characteristics, social interactions, and affective responses) influenced community and personal learning differently. We supplemented survey results with interview and observational data from a subset of participants and conclude with a discussion of the theoretical implications for action learning and practical recommendations for designing community service programs. Copyright © 2001 John Wiley & Sons, Ltd.

Introduction

Global markets, evolving organizational structures, and changing political, social, and environmental forces have redefined the criteria for effective management. Flatter, fluid, team-based organizations require managers to have a broad repertoire of skills that include the ability to work effectively with an increasingly diverse set of constituents (employees, customers, suppliers, and organizational partners) (Allred *et al.*, 1996; Schein, 1996; Whetten and Cameron, 1991) while at the same time exhibiting high levels of self-awareness and self-management (Manz, 1986; Manz and Sims, 1987). To cultivate these management competencies, an increasing number of organizations and educational institutions have developed 'action learning' initiatives (Argyris and Schon, 1978; Kolb, 1984; Raelin, 1997) focused on community service (Caudron, 1994; Forward, 1994; Friedman, 1996; Makower, 1994). Action learning is a management education and development technique that emphasizes learning through concrete experience rather than simulated training activities (Korey and Bogorya, 1985).

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Community service initiatives enable individuals to contribute their time and skills to help improve their local communities, with the goal of enhancing individuals' awareness of constituents in the broader community as well as enhancing self-awareness (Tichy *et al.*, 1997).

To date, however, few action learning programs have been evaluated (Raelin, 1997) and there is little information on whether community service participants believe that they have gained knowledge of themselves or of the target communities. Given that community service programs typically offer participants a rich variety of action learning experiences, understanding the conditions that affect individuals' perceptions of learning constitutes an important research question. In the research described in this paper, we theorize that different design conditions lead to different amounts of learning (one possible measure of program effectiveness) and different types of learning (i.e., learning about the community and/or learning about the self).

Among the primary proximal causes for variation in individual thought and action in a task situation are characteristics of the work, patterns of social interaction with other people or groups, and the affective responses or moods of the individual (Hackman, 1992). Such factors constitute critical input conditions that heighten motivation to achieve personal or organizational outcomes and influence an individual's informational state, including beliefs about the self and knowledge of a particular task or social context. In the research presented here, we focus on design conditions that can influence the type and amount of individual learning gained from action learning experiences. We develop hypotheses concerning various design conditions and report results of an initial test of our model with data collected from first-year MBA students who participated in team-based community service activities as part of their orientation program. Overall, our research is designed to inform contemporary theories of action learning and to suggest preliminary guidelines for designing community service programs that promote knowledge of community issues and self-awareness.

Core components of action learning

Learning is a process that results in increased knowledge, skill, understanding, and changes or intentions to change behavior (Bandura, 1986). Action learning perspectives (Argyris and Schon, 1978; Gillette, 1990; Kolb, 1984; Schon, 1983; Senge, 1990) emphasize the importance of design conditions and posit that learning is intimately tied to specific experiences. In our research, we use action learning as a lens or framework where concrete experiences provide the platform for individuals to generate knowledge and understanding. This view implies that design conditions operate as important antecedents to learning. We apply this perspective to the design of community service programs and theorize that specific design conditions promote two different types of action learning outcomes in community service settings: community learning and personal learning. *Community learning* reflects an enhanced awareness and understanding of social, economic, and cultural issues. In contrast, *personal learning* is the acquisition of self-relevant knowledge, including a deeper understanding of one's personal attitudes, values, and abilities.

Action learning and, in particular, 'community service learning' (Kraft and Swadener, 1994) emphasize the importance of selecting or creating 'high quality' experiences. Yet there have been no investigations of the design conditions that promote such learning experiences. Our review of existing research suggests three general design conditions that are crucial for the dual learning objectives of most community service programs (i.e., community learning and personal learning). These include task characteristics, social interactions, and positive affect. In the next three sections, we define and discuss how these design conditions can motivate participants to attend to different sources of information in the community service context that have direct relevance to community and personal learning.

Task characteristics

Action learning depends in part on the degree to which individuals attend to and process contextually salient information. According to Hackman (1992), motivation to achieve personal and organizational objectives, which can include both learning and performance goals, derives in large part from the tasks a person performs. Individuals pursue learning objectives when their task activities generate high levels of intrinsic interest (Ames and Archer, 1988; Sujan *et al.*, 1994). When task design triggers or enhances intrinsic motivation, individuals focus on the rewards inherent in performing the task such that the activity becomes an 'end in itself' (Kruglanski, 1975).

Among the task characteristics that contribute to intrinsic motivation are mental stimulation or challenge, curiosity, and expectations of task mastery and performance (Pittman, 1998). For example, Conti *et al.*, (1995) found that individuals who performed a stimulating, creative activity as an initial task, subsequently reported greater intrinsic motivation and exhibited greater learning on a later, primary task. Applied to action learning activities, we suggest that learning occurs when individuals engage in challenging and meaningful tasks that actively engage their attention. Under these conditions, individuals feel motivated to attend to, absorb, and process salient information, suggesting that community learning depends on the extent to which the service work motivates active task engagement in the service context.

We draw from Hackman and Oldham's (1976, 1980) theory of task design and intrinsic motivation to investigate how specific community service task characteristics (our first design condition) generate learning. According to the job characteristics model, features of the work environment contribute to feelings of intrinsic motivation, the degree to which an individual is self-motivated to perform a task effectively. Notably, high levels of skill variety, task identity, and task significance create perceptions of a meaningful work context. Enriched jobs involve complex skills (i.e., skill variety), accomplishment of a complete piece of work (i.e., task identity), and significant consequences for others (i.e., task significance). Taken together, these task characteristics serve as a motivational force that can stimulate greater work effort and task accomplishment (Fried and Ferris, 1987; Renn and Vandenberg, 1995) by affirming the value and worth of an individual's efforts (Hackman and Oldham, 1976; Thomas and Velthouse, 1990). Hence, the motivational consequences of skill variety, task identity, and task significance include active engagement and efforts to acquire information and skills that enhance knowledge of the task situation.

In action learning initiatives involving community service, we propose that activities high in skill variety, task identity, and task significance promote perceptions of meaningfulness that cause participants to notice and attend to salient task and contextual information (i.e., social, cultural, or economic issues) with direct implications for community learning. For example, individuals who perform a limited range of tasks using a narrow set of skills (low skill variety) are unlikely to view the work as meaningful or immerse themselves in the task situation. Examples include individuals who repeatedly move building materials from one location to another or individuals whose responsibilities are limited to stuffing envelopes. This narrow range of skills can limit opportunities to acquire information about the service agency and its clients and can impair both learning and performance. To further illustrate, individuals who coordinate referral services (e.g., housing, health care, and employment) with clients and various agencies (high task identity) may find their work more meaningful and, in turn, may seek a greater understanding of essential agency services compared to individuals who clean storerooms at a homeless shelter or stock shelves in a soup kitchen. Moreover, participants who prepare resumes and lead job interviewing workshops for unemployed individuals are more likely to understand their own contributions (high task significance) than those who provide agency support services (e.g., answering phones and filing reports). These task characteristics or enriched jobs thus promote efforts to attend to, absorb and interpret information about the task and the broader social context. Accordingly, we

hypothesized that high skill variety, task identity, and task significance are critical design conditions for community learning.

> *Hypothesis 1*: The higher the level of skill variety, task identity, and task significance, the greater the amount of community learning.

Social interactions

In the preceding section, we discussed task characteristics as having motivational consequences for learning about the community. We now shift our attention from the task to our second design condition: the interactions that program participants have with other people at community service agencies. We suggest that community service experiences differ in the types of social interactions that occur both among program participants and between agency clients and program participants. As we explain below, we hypothesized that client interactions promote community learning whereas interactions with other program participants contribute to personal learning.

Client interactions

Our basic hypothesis is that contact with agency clients increases the salience of information about social, cultural, or economic issues with direct relevance to community learning. Social cognition research suggests that the salience and vividness of a particular stimulus (whether it is a person, object, or situation) influence attention and information processing (Fiske and Taylor, 1991). Other individuals in a particular social context become salient when they possess novel characteristics; they become vivid when they are emotionally interesting, concrete, and proximate (Nisbett and Ross, 1980, pp. 45). Individuals with distinctive or unusual characteristics tend to receive more attention, attract more scrutiny, and are perceived as more informative and memorable than familiar, typical, or less vivid individuals. Accordingly, information about such persons is processed more fully during encoding, increasing the quantity and speed with which the information can be recalled (Fiske and Taylor, 1991).

Working with disadvantaged clients who differ from action learning participants physically, socially, culturally, or economically can provide a compelling and attention-getting contrast for participants. Accordingly, information about clients' personal situations is likely to become especially salient or vivid to participants. Consider the salience of the following example from a company-sponsored community service program where employees provided mentoring to at-risk youth:

> 'There are a lot of gun problems there, and we were warned not to wear jewelry or hang out in the hallways because teachers are often assaulted. It was visually terrifying: armed guards patrolling the school, security people at the doors who wouldn't let you in without your photo ID cards. It was certainly a new experience for me.' (quoted in Forward (1994), pp. 11)

Mentoring inner-city high school students who differ from program participants in race, socioeconomic background, and/or education, or whose personal circumstances are unique or extreme captures participants' attention and interest. In community service contexts, clients of the agencies tend to differ, sometimes dramatically, from program participants. High levels of client contact accordingly reveal vivid and salient information, which program participants scrutinize in order to process and understand. For example, participants who tutor at-risk children with below grade-level reading skills are likely to seek out or develop explanations for their academic difficulties in an effort to better understand their current situations. Efforts to do so lead participants to notice and attend to informative cues from the clients as well as the school that reveal potentially influential social, cultural, or economic factors. We propose this cognitive processing expands participants' overall awareness of others and the

broader social context, which contributes to learning about community issues. Thus, we hypothesized that:

Hypothesis 2: The higher the degree of client interaction, the greater the amount of community learning.

Participant interaction

In some team-based community service programs, participants interact almost exclusively with other program participants. In these situations with minimal client contact, we suggest that contextual information is less salient to participants. Rather, program participants who interact with each other will be more attentive to their own personal qualities than to information about agency clients or broader community issues. Task and social interdependence within teams are two factors that characterize the degree of social interaction among participants. We argue that such factors are central to personal learning because they trigger self-focused attention among participants. High task interdependence exists when team members must work together and no individual or subgroup can do the work alone (Wageman, 1995). High social interdependence develops when the group is cohesive and individuals have beneficial interpersonal relations (Hackman, 1992; McGrath, 1984). High task and social interdependence foster social norms of cooperation, collective responsibility, and group identity (Hackman, 1992; Shea and Guzzo, 1987). These conditions lead individuals to concentrate on aspects of the group and the self (Mullen, 1987) and direct attention away from the broader social context.

In these situations, we propose that a team-based attentional focus where individuals use their groups as a source of information about themselves (Hackman, 1992) distracts attention from the broader social context and instead enhances personal learning. When task performance requires interdependent coordination among group members or when group members have close interpersonal relationships, individuals make comparisons and engage in self-evaluation. They engage in social comparisons with similar others to assess their own level of ability and the validity of their attitudes or opinions (Festinger, 1954). These comparisons occur effortlessly and spontaneously when another person is salient or available (Goethals and Darley, 1987; Wheeler and Miyake, 1992) and motivate self-scrutiny. When the broader social context is comprised of other individuals and groups that differ in salient socioeconomic or cultural characteristics (Levine and Moreland, 1986), individuals focus on members of their own group for the purpose of self-evaluation. This is because individuals generally prefer those who are similar for comparative purposes and, thus in our situation, are more likely to compare themselves with other group members (other participants) than with agency clients. Comparisons within the group can provide individuals with self-relevant information that advances personal learning. For example, working closely with other program participants to conduct a budget analysis for a non-profit agency can provide opportunities for participants to assess task-related skills (e.g., financial analysis, problem-solving) as well as interpersonal capabilities (e.g., negotiating, conflict resolution). Thus, we propose that high task and social interdependence among action learning participants are important design conditions for personal learning because they focus attention on the team and the self, and these comparisons motivate enhanced self-awareness.

Hypothesis 3a: The higher the degree of task interdependence with other participants, the greater the amount of personal learning.

Hypothesis 3b: The higher the degree of social interdependence with other participants, the greater the amount of personal learning.

Positive mood

Having discussed the motivational consequences of task characteristics and social interactions, we now consider participants' affective responses as a third design input factor that can motivate learning.

Positive mood, an affective state indicating enthusiasm and excitement (Forgas, 1992), can be influenced by a variety of situational characteristics. With the goal of promoting continued involvement, community service programs aim to generate positive experiences for participants (Forward, 1994; Tichy *et al.*, 1997) and view positive affective reactions as an important characteristic of effective projects. Since many, if not most, affective states are aroused by interpersonal events (Parkinson, 1997), these agencies design programs to generate positive effect by providing participants with opportunities to develop new social ties and/or secure social recognition (Harrison, 1995; Omoto and Snyder, 1995).

Mood states can have strong motivational properties that influence individual cognition and behavior (Forgas, 1992; Isen and Baron, 1991). Here we suggest that positive mood motivates both personal and community learning because it influences affiliation and information seeking. Positive mood, such as enthusiasm or excitement, is associated with action readiness and an open orientation that leads to exploration, information gathering, and social interaction directed at attaining important goals (Frijda, 1988; Green and Sedikides, 1999). In action learning settings, positive mood promotes openness to new experiences as well as an approach orientation toward people and events. Positive mood also increases access to a broad range of procedural, semantic, and episodic knowledge that provides a basis for stimulus elaboration (Schwarz and Bless, 1991). It also increases an individual's capacity to integrate diverse information, elaborate unusual and creative associations, and generate new concepts (Forgas, 1992). Such processes are central to action learning, enabling participants to generate insights about themselves and the broader community.

In the context of community service, we propose that positive mood motivates individuals to explore the social environment, capitalizing on opportunities to interact with and gather information about clients (which promotes community learning) and other program participants (which promotes self-evaluation and personal learning). Positive mood enhances individuals' ability to absorb, interpret, and learn from their experiences. Accordingly, we predicted that positive mood motivates both community learning and personal learning.

Hypothesis 4a: The higher the level of positive mood, the greater the amount of community learning.

Hypothesis 4b: The higher the level of positive mood, the greater the amount of personal learning.

Method

Research site

We tested our hypotheses in a field study of first-year MBA students who participated in a community service program as part of their orientation. Participants were organized into teams that partnered with corporate managers, faculty, and community agencies in an intense, shared experience (Mercer, 1996). The program was designed to reinforce the business school's objective of developing leaders with an understanding of the broader responsibilities of leadership. It aimed to raise awareness and understanding of the social, cultural, and economic issues that affect the climate for conducting business. The program encouraged participants to value long-term relationships and a wide range of heterogeneous community members. The program also encouraged individuals to assess their own managerial values and abilities. Although community service programs in organizational and educational settings vary in terms of duration, an increasing number of programs emphasize short-term activities (i.e., one or two days) to minimize administrative and resource commitments (Mercer, 1996; Wild, 1993). In our research we studied a one-day program of action learning and community service, thus our results are most relevant to intense programs of relatively short duration.

Program organization

The program was organized into four segments (opening session, team building, community service work, and reflection and discussion). For our study, several features of the program are noteworthy.

Opening session

The program began in a large auditorium where the dean of the business school and the CEO of a major corporation offered vivid descriptions of emerging management challenges. The session set expectations for learning, generated excitement, and provided an overview of important social, cultural, and economic issues. From our perspective, the opening session was critical because it helped to motivate learning by imbuing individuals with positive images of the potential benefits of the program.

Team building

Participants were organized into 60 teams (5–9 members) led by second-year MBA students who had participated in the program the previous year and had attended facilitator training. Teams engaged in two hours of structured team-building activities before departing as a group for their assigned community agency. The central goal of the team-building segment was to develop a social support system for participants who would be working in unfamiliar situations. Team activities were designed to alleviate stress and enhance positive mood through a series of energizing and engaging outdoor, problem-solving exercises.

Community agencies

MBA students spent approximately eight on-site hours working on community service projects at 12 non-profit and social service agencies. Community projects included a wide variety of activities (i.e., physical or non-physical work, complex or simple tasks) and opportunities for client contact (i.e., no contact at all to extensive social interaction). For example, MBA teams performed general maintenance tasks at homeless shelters, assisted in the construction of homes for low-income families, and designed a fund-raising plan for an educational centre. The socioeconomic status of the agency clients was consistent across community projects; most clients had an annual income of less than U.S. $10000.

Reflection and discussion

According to the program director, the essence of the community immersion experience is 'a reflection on that experience and a rendering of it into words so that it can be subjected to disciplined thinking' (Mercer, 1996, pp. 114). Toward this end, MBA student teams participated in a structured reflection and discussion session after their on-site work. Team leaders acted as facilitators to help group members understand their experiences through a process of individual reflection and collective discussion. Teams constructed profiles of their agency and its staff, identified critical problems, determined how these problems could be alleviated, and assessed the effectiveness of the agency in meeting these challenges. This component of the program aimed to clarify and consolidate individual learning with the ultimate goal that this learning would influence future behavior.

Research strategy

We collected survey, interview, and observational data from MBA students and team leaders who participated in the program. Team leaders served as liaisons between the service agencies and their teams,

with primary responsibility for coordinating and monitoring team member tasks. One of our goals was to collect data from multiple sources to minimize the problems derived from common-source bias. Thus, participants assessed task and social interdependence, positive mood, and learning; and team leaders rated task characteristics and client interaction. Participants completed surveys on-site immediately after finishing their projects, but prior to the reflection and discussion session. We also conducted semi-structured interviews with 42 MBAs and collected video data from 10 agencies to enrich our understanding of the various community service experiences.

Sample

The program was not formally required, but was strongly encouraged. Of the 410 eligible students, 381 participated (93 percent response rate), suggesting that individuals may have felt normative pressures to participate. We suspect that such pressures are common to many community service programs. For example, individuals in business settings may feel obligated to participate in community service programs that are endorsed by their supervisors.

Most of the MBA students (80 percent) were 20–29 years old, 71 percent were male, and the typical participant had five years of work experience. Individuals varied in their prior community service (zero to 21 days) with an average of 2.9 days of non-profit or social service work during the prior year.

Dependent variables: learning outcomes

We used perceptual measures of participant learning because we did not expect that initial input conditions would result in behavioral changes that could be measured with objective indicators. Rather, design conditions provide the platform for knowledge and understanding that can be further transformed into change or intention to change behavior through continued community service experiences or coursework (Mercer, 1996).

To measure self-perceptions of learning, we generated 12 items (seven personal learning items; five community learning items) that were conceptually relevant to community service programs and focused on general learning rather than programmatic learning (i.e., agency-specific). For example, personal learning included relational (e.g., collaboration, communication) and managerial competencies (e.g., problem-solving, needs analysis), leadership philosophy and values (e.g., social awareness in making business decisions), and personality characteristics (e.g., openness to change). Community learning items assessed understanding of social, cultural, or economic issues. Individuals indicated the extent of their learning for each item using a 5-point scale (1 = nothing at all to 5 = very much). We conducted a principal components analysis with varimax rotation of the 12 learning items. Results indicated two coherent 4-item factors with a cross-loading maximum cutoff of 0.30. These factors accounted for 58.1 percent of the explained variance. Cronbach's alpha was 0.80 for community learning and 0.87 for personal learning. Table 1 reports items and factor loadings.

Independent variables

Task characteristics
Although individuals arrived at the agencies with their teams, agency coordinators often assigned jobs such that some members worked on individual tasks, on tasks with new people, or on tasks that combined their team with other teams. Team leaders and participants assessed *skill variety*, *task*

Table 1. Factor analysis of self-report learning items

Item	Factors	
	Personal learning	Community learning
Gained understanding of:		
1. Your managerial abilities (critical thinking, needs analysis, decision-making)	0.83	0.09
2. Your relational skills (communication, collaboration, conflict resolution)	0.85	0.16
3. Your managerial values (beliefs about what is important)	0.80	0.11
4. Your personality (flexibility, openness to change)	0.76	0.14
5. Social and economic issues and problems	0.16	0.72
6. Cultural differences	0.09	0.65
7. Connections between management decisions and community welfare	0.10	0.85
8. Concepts for thinking about social and economic issues in management practices	0.05	0.84
Eigenvalue	4.17	2.07
Percentage of variance accounted for	34.0	24.1

Notes:
1. Factors resulted from principal components analyses using Varimax rotation. Items within factors were subjected to a cross-loading maximum cut-off of 0.30. The model accounted for a cumulative 58.1 per cent of the variance.
2. Items were measured on a 5-point scale with 1 = nothing at all, and 5 = very much.

identity, and *task significance* for the activities performed by each participant. Each task characteristic was measured by one summary item from Hackman's (1982) *Guide for Observations of Work Teams*. To provide a common metric, behavioral anchors guided responses to the 5-point scale. These anchors were statements or observations that described response alternatives in more detail. For example, task identity gauged the extent to which a task represented a whole and identifiable product or service. Response anchors ranged from (1) Very little (it is difficult to identify the contribution of the task to the final product or service provided; the task represents a whole product or service but it is so small in size or duration as to be of little meaning) to (5) Very much (the work represents a whole and intact final product; the work represents only a part of the final product but it is large enough in size or duration to be meaningful in its own right). Results demonstrated high levels of convergence between team leader and participant perceptions of task characteristics: skill variety ($r = 0.84$), task identity ($r = 0.79$), and task significance ($r = 0.88$). To minimize the possibility of inflated relationships due to common source bias, we used team leaders' ratings in the statistical analyses.

Client interaction
Team leaders and participants assessed the amount of interaction that each team member had with agency clients (1 = none, 2 = observation only, 3 = minimal interaction, 4 = moderate interaction, 5 = extensive social interaction). Convergence of these ratings was high ($r = 0.90$). To avoid artificially enhanced relationships, we used team leaders' ratings of *client interaction* for hypothesis testing.

Interdependence
Task interdependence partly stems from requirements and constraints inherent in a task's technology or design. It is also a characteristic of the way individuals plan, coordinate, and execute their tasks in relation to other features of the context such as goals, feedback, and leadership (Saavedra *et al.*,

1993; Wageman, 1995). Although perceptions of interdependence in a work group are often similar across individuals, these perceptions can also vary. Therefore, we assessed members' 'experienced' task interdependence with Pearce and Gregersen's (1991) 8-item scale, which is sensitive to variation in members' task interdependence. Examples included 'I frequently must coordinate my efforts with others' and 'The way I perform my work has a significant impact on others.' Respondents rated, on a 7-point scale (1 = very inaccurate, 7 = very accurate), the extent to which each statement was an accurate description of the way they worked with other members.

We assessed *social interdependence* with a 5-item scale developed by Koys and DeCotiis (1991). MBA students rated statements (1 = strongly disagree to 7 = strongly agree) that described the perceived quality of interpersonal relations they had with other program participants with whom they worked at the agency. Examples include 'We all took a personal interest in one another' and 'There was a lot of team spirit' in my MBA team.'

Positive mood

We operationalized self-report *positive mood* with six items from the circumplex model of affect (Watson and Tellegen, 1985) using Larsen and Diener's (1992) labelling scheme. The items assess high energy, pleasant mood and include euphoric, lively, enthusiastic, excited, peppy, and elated. Immediately after the on-site activity, participants reported the extent to which they were currently experiencing each mood adjective using a 7-point scale (0 = not at all, 6 = a great deal).

Control variables

Prior research demonstrates that community service decreases after the age of 18 and remains low until the late twenties, then it rises, reaching a peak between the ages of 40 to 55 (Pearce, 1993). Research also indicates that women are more likely to belong to non-profit and social service organizations whereas men are more likely to belong to professional associations that are functional for their careers (Pearce, 1993). In addition, we speculated that past community service experience might influence participant's experience of the program. Accordingly, we controlled for age, gender, and past community service in our analyses to avoid potential confounds.

Qualitative data

We collected one hour of video data during the program at 10 of the 12 agencies (two agencies were at remote locations and could not be observed due to time constraints). We also collected observational data at the agencies and took detailed notes on task characteristics, task interdependence, social interdependence, and client interactions. Finally, we conducted semi-structured interviews with 42 participants (three or four from each agency) after their on-site experience to gather additional information on learning. Each interview lasted approximately 20 minutes. We audio taped the interviews and transcribed them verbatim. We use the above qualitative data to interpret and elaborate the statistical findings in our discussion of the results that follows.

Results

Table 2 reports descriptive statistics, correlations, and reliability analysis for the nine variables in our research. Overall, individuals reported moderate levels of community learning (scale: 1–5;

Table 2. Means, standard deviations, alphas, and intercorrelations

Variable	Alpha	Mean	SD	1	2	3	4	5	6	7	8
1. Skill variety	–	4.43	1.39								
2. Task identity	–	4.60	1.30	0.12							
3. Task significance	–	4.81	1.28	0.09	$0.40^\dagger$						
4. Client interaction	–	2.86	1.24	-0.19^*	$0.39^\dagger$	$0.44^\dagger$					
5. Task interdependence	0.80	4.94	1.10	$0.40^\dagger$	$-0.29^\dagger$	$-0.35^\dagger$	$-0.37^\dagger$				
6. Social interdependence	0.82	5.63	1.00	0.14	0.07	-0.10	0.06	$0.29^\dagger$			
7. Positive mood	0.90	3.52	1.32	0.19^*	0.14	0.18^*	$0.25^\dagger$	0.08	$0.29^\dagger$		
8. Community learning	0.80	3.22	1.05	-0.06	$0.38^\dagger$	$0.43^\dagger$	$0.45^\dagger$	$-0.27^\dagger$	0.12	$0.36^\dagger$	
9. Personal learning	0.87	3.03	1.00	$0.34^\dagger$	$-0.21^\dagger$	-0.14	$-0.23^\dagger$	$0.43^\dagger$	$0.38^\dagger$	$0.29^\dagger$	0.15^*

$^*p < 0.01$; $^\dagger p < 0.001$.
$N = 381$
Variables 1–4 are team leader ratings; variables 5–9 are MBA student self-report.

mean $= 3.22$, SD $= 1.05$) and personal learning (mean $= 3.03$, SD $= 1.00$). The correlation between community learning and personal learning was weak ($r = 0.15$, $p < 0.05$), reinforcing the factor analysis results indicating the discriminant validity of these constructs.

To assess if learning was context driven and influenced generally by the design conditions as hypothesized in our model, we examined whether participants who worked at the same agencies reported comparable levels of learning. The intraclass correlation coefficient (ICC) uses a one-way analysis of variance to compare between and within group variance (Kenny and LaVoie, 1985). ICC coefficients that yield a significant F-test suggest that participants within agencies experienced roughly equivalent levels of learning. Results demonstrate significant ICC values for both community learning (ICC $= 0.55$, $F_{(11,369)} = 14.74$, $p < 0.001$ and personal learning (ICC $= 0.52$, $F_{(11,369)} = 12.33$, $p < 0.001$), providing evidence that learning was context driven.

We then assessed overall levels of community and personal learning at each of the 12 agencies. For simplicity, we utilized median values (community learning $= 3.10$, personal learning $= 2.98$) as cut-off points to designate high versus low learning. Overall, eight agencies promoted high levels of either personal *or* community learning, while the remaining four agencies generated low levels of both forms of learning. No agencies had high levels of *both* community and personal learning. This result is consistent with the weak correlation between community and personal learning reported above. As we discuss later, this overall pattern of results suggests that it may difficult to achieve both forms of learning in a single community service experience.

Hierarchical regression analyses

We used hierarchical regression to examine our hypotheses. This strategy allowed us to gauge the relative contribution of each category of input conditions to community and personal learning. We began by removing the influence of control variables (age, gender, past community service), added the task characteristics, then social interaction characteristics (client interaction, task and social interdependence), and finally, positive mood. This hierarchical approach reflects a progression from static (task characteristics) to more dynamic features of the social context (social interaction and mood). It also reflects decreasing control for program designers in their ability to influence the input conditions (e.g., program designers can determine the level of skill variety; but have less control over individual mood states). Assessment of the change in R^2 at each step indicates the importance of each set of variables in explaining variance in community and personal learning. Table 3 displays the hierarchical regression results.

Table 3. Results of hierarchical regression analysis

	Personal learning				Community learning			
	ΔR^2	ΔF	beta	Adjusted R^2	ΔR^2	ΔF	beta	Adjusted R^2
Step 1 (**Control variables**):	0.01	0.36			0.01	0.74		
Age			0.02 (0.10)				0.01 (0.10)	
Gender			0.03 (0.09)				0.06 (0.09)	
Past community involvement			0.03 (0.02)				0.09 (0.03)	
Step 2 (**Task characteristics**):	0.13	21.53‡			0.23	36.02‡		
Skill variety			0.16† (0.03)				−0.04 (0.03)	
Task identity			−0.08 (0.03)				0.16† (0.03)	
Task significance			0.03 (0.04)				0.26‡ (0.04)	
Step 3 (**Social interaction**):	0.19	30.91‡			0.10	14.54‡		
Client interaction			−0.13* (0.04)				0.20‡ (0.04)	
Task interdependence			0.29‡ (0.05)				−0.08 (0.05)	
Social interdependence			0.25‡ (0.05)				0.09 (0.05)	
Step 4 (**Affective response**):	0.06	16.87‡		0.33	0.07	23.43‡		0.37
Positive mood			0.20‡ (0.03)				0.22‡ (0.03)	

$^*p < 0.05$; $^†p < 0.01$; $^‡p < 0.001$.
All beta weights are from Step 4. Standard errors are in parentheses.
$N = 381$.

Community learning

Table 3 shows that the control variables failed to reach significance at Step 1 for community learning $\Delta F = 0.74$, $p > 0.05$). This suggests that age, gender, and past community service did not contribute to the explained variance in community learning. At Step 2, addition of task characteristics demonstrated a substantial R^2 change ($\Delta R^2 = 0.23$, $\Delta F = 36.02$, $p < 0.001$). Task identity ($\beta = 0.16$, $p < 0.01$) and task significance ($\beta = 0.26$, $p < 0.001$) were significant predictors, providing partial support for Hypothesis 1. Addition of the social interaction variables at Step 3 also produced a significant R^2 change. ($\Delta R^2 = 0.10$, $\Delta F = 14.54$, $p < 0.001$). Client interaction was significant ($\beta = 0.20$, $p < 0.001$), supporting Hypothesis 2. The addition of positive mood at Step 4 produced a significant change in R^2 ($\Delta R^2 = 0.07$, $\Delta F = 23.43$, $p < 0.001$), supporting Hypothesis 4a ($\beta = 0.22$, $P < 0.001$). Overall, these input conditions accounted for 37 percent of the variance in community learning ($F = 21.28$, $p < 0.001$). In terms of the relative contribution of each set of design categories, input conditions representing task characteristics (i.e., task identity and task significance) made the greatest contribution to community learning.

Personal Learning

As shown in Table 3, the pattern of results differed for personal learning compared to community learning. Again, the control variables (entered at Step 1) failed to reach significance ($\Delta F^2 = 0.36$, $p > 0.05$). The addition of the task characteristics at Step 2 produced an unexpected and significant R^2 change ($\Delta R^2 = 0.13$, $\Delta F = 21.53$, $p < 0.001$), with skill variety as a significant predictor ($\beta = 0.16$, $p < 0.01$). At Step 3, a substantial change in R^2 followed the addition of the social interaction variables ($\Delta R^2 = 0.19$, $\Delta F = 30.91$, $p < 0.001$). Consistent with Hypotheses 3a and 3b, task interdependence ($\beta = 0.29$, $p < 0.001$) and social interdependence ($\beta = 0.25$, $p < 0.001$) were significant predictors. Client interaction was negatively related to personal learning ($\beta = -0.13$, $p < 0.05$). The addition of positive mood at Step 4 produced a significant R^2 change ($\Delta R^2 = 0.06$, $\Delta F = 16.87$, $p < 0.001$) and was a significant predictor of personal learning ($\beta = 0.20$, $p < 0.001$). This provides support for Hypothesis 4b. Overall, our input conditions explained 33 percent of the variance in personal learning ($F = 20.32$, $p < 0.001$), with the social interaction variables having the greatest influence.

Discussion

Overall, results provide general support for our model and indicate the importance of design conditions such as task characteristics, social interaction, and positive mood for action learning in community service contexts. High quality experiences provide the foundation for generating knowledge and understanding in an action learning system. More important, the contrasting pattern of results for personal and community learning suggests several intriguing implications for further theory development and practical implementation. We elaborate the statistical findings below with observational and video data gathered at 10 community agencies and with semi-structured interview data collected from 42 program participants.

Task characteristics

Our findings indicate that the relationship between task characteristics and individual perceptions of learning is more complex than we had anticipated. We proposed that skill variety, task identity, and

task significance would be related to community learning. As expected, results demonstrate that the completion of a whole piece of work (task identity) that had a clear impact on client welfare (task significance) enhanced awareness of social, cultural, or economic problems (community learning). Contrary to expectations, however, varied and complex task assignments (skill variety) did not contribute to community learning but, rather, promoted personal learning.

The interview data we collected provides a possible explanation. Complex service activities with elaborate task requirements demand concentration and focus, limiting participants' ability to monitor the broader social context and gather information about the agency and its clients. For example, a participant who assisted in the construction of a home for a low-income family noted that 'framing, measuring, and cutting support beams required intense concentration that prevented me from interacting with [the future homeowners]'. Furthermore, the video data indicated that when participants had job assignments with high skill variety, they were generally unable to communicate with others outside their own team. Perhaps high skill variety triggered social comparison with others in the immediate group and enhanced personal learning. For example, the interview data suggest that tasks involving complex skills enabled individuals to 'evaluate' or 'take stock' of their 'attitudes' (e.g., values, cultural stereotypes) and 'abilities' (e.g., communication and collaboration skills, decision-making skills), as well as their 'personality attributes' (e.g., risk-taking, extroversion) through comparisons with their peers. We suggest that high skill variety creates challenging work activities that stretch individuals and, thus, promote self-evaluation on a diverse set of attributes. Through comparisons with other team members, individuals gather self-relevant information that contributes to personal learning.

Our findings suggest that skill variety, task identity, and task significance are critical input conditions to community service, perhaps because they motivate individuals to attend to different sources of information that serve different learning objectives. This perspective extends Hackman and Oldham's (1980) original conceptualization such that task characteristics that contribute to the experienced meaningfulness of the work can promote learning objectives as well as personal attitudes (e.g., work satisfaction) and work outcomes (e.g., high performance). We suggest that future research might examine if different task characteristics affect learning by increasing the salience of different types of information related to community and personal learning objectives. Such work would elaborate existing research on how task features affect different facets of information processing (e.g., attention, encoding, information integration) which, in turn, influence judgement and decision-making at both the individual (Einhorn and Hogarth, 1981) and group level (Gersick and Hackman, 1990; Levine and Moreland, 1991).

Social interactions

Our results also highlight a difference in how social interactions affect action learning. As expected, community learning was associated with active interaction with agency clients, whereas high task and social interdependence promoted personal learning. The interview data were consistent with these findings. Program participants noted that contextual information related to community learning was often acquired through client interaction. For example, a participant who worked at a transitional housing facility noted that while painting one of the apartments, a male resident engaged him in a conversation about the circumstances that led him and his wife to live at the housing facility. The participant noted that 'an unexpected corporate downsizing left him with no income and a series of low-paying, part-time jobs with no benefits or health insurance that led him, his wife, and their newborn daughter to seek temporary shelter until he could secure a full-time position.' The participant noted that the event made him think about how human resources policies can promote, as well as prevent, such problems. Notably, the participant reported that 'I'm starting to see how the benefits packages I used to develop

probably had a bigger impact on employees' lives than I thought.' This example illustrates how client contact can direct individual attention toward information that increases sensitivity to and encourages new ways of thinking about community issues.

In contrast, interactions with other participants enhanced personal learning. We speculate that this may be because it activates social comparisons with other team members. The interview data we collected suggested that isolation from agency clients led participants to focus on their team's task and interpersonal processes. Many participants offered statements similar to a student who noted that 'we became surprisingly close to one another within a short period of time' and that 'our conversations focused primarily on personal backgrounds, job histories, and career interests.' This may have led individuals to conduct comparative appraisals with others. For example, a program participant noted that working closely with other members enabled her to evaluate her interpersonal skills and 'to learn how to handle disagreement and conflict in the group by comparing my own strategies with other members' tactics.' Hence, it is possible that interpersonal social comparison is a mechanism by which participant interactions promote personal learning.

We proposed that community and personal learning require different attentional foci. In addition, our results suggest that it is difficult to attend simultaneously to the agency and its clients as well as to the team and the self. In our study, the design conditions that directed participants' attention did not co-exist. Instead, situations elicited one dominant frame of reference that influenced information gathering. When participants have substantial contact with agency clients, they engage in more external monitoring and information gathering because their attention is focused mainly on clients. In our sample, client interaction and task interdependence were negatively related, suggesting that an outward focus on the social context distracts time and energy from planning, coordinating, and executing activities within the group itself (Ancona and Caldwell, 1992). The regression analyses also indicated that extensive client interaction detracted from personal learning, perhaps because it directed attention toward contextual information and away from the self as a group member. In contrast, high task and social interdependence promoted the team as the dominant social context for learning. Perhaps, in our study, team-building activities prior to community service prompted an inward focus on the team that was further reinforced in situations with minimal client contact. Although team building is sometimes intended as a means and an end of community service, an internal focus may inhibit community learning if team members become relatively unreceptive to the external environment.

By extension, these findings suggest that it may be difficult to achieve high levels of both personal and community learning in a single experience. Most of the participants in our study (69 percent) reported moderate levels of personal *or* community learning, and we found only a modest correlation between these learning outcomes. Hence, we caution community service designers to be conservative in their expectations for learning. If the primary goal is to promote personal learning, then an inward focus (on the team and self) reinforced by team-building exercises is appropriate. If community learning is the primary goal, our results suggest an outward focus (on the social context) where teams have high levels of client interaction.

Positive mood

We also investigated positive mood as a motivational force for action learning. Our findings support prior anecdotal evidence that suggests community service is experienced as energizing and pleasurable. We found that positive mood was associated with both action learning outcomes: community learning and personal learning.

Positive mood promotes openness to new experiences, stimulates information seeking, and enhances individuals' abilities to integrate diverse information and generate new inferences (Forgas,

1992). We speculate that positive mood is a critical design condition because it prompts social inter-action and information processing strategies that enhance action learning. This suggestion makes explicit the implicit intuitions and preferences of community service designers and participants alike because it connects 'feel-good' activities to action learning goals. Thus, we recommend that framing activities (i.e., orientation sessions) should be designed to generate enthusiasm and excitement, per-haps by highlighting the potential benefits of the program.

Limitations and Future Research

Although this research produced interesting and contrasting results for the two types of learning, the study was correlational and did not involve the manipulation of variables. Thus, causality cannot be inferred. Although our conceptual framework provides a rationale for establishing directional influ-ences, the nature of the design precludes inferences about causality. We also emphasize that we focused on a specific type of action learning – intense, short-duration community service programs. Although we suggest that our three general design categories (i.e., task characteristics, social interac-tion, and affective response) are relevant to most action learning systems, generalization of our specific input conditions to other activities is premature. For example, it is possible that repeated and ongoing experiences in a specific context might produce different results. We recommend that future research investigate the effectiveness of these and other design conditions in ongoing action learning settings.

Furthermore, we note that our findings may be most relevant to participants who feel sufficient moti-vation to learn as a function of factors unrelated to the design of the specific action learning activities. Our sample was students entering an MBA program. Thus beginning the role of student in an educa-tional institution may have activated an overall learning orientation that contributed to specific learn-ing in conjunction with the design conditions we investigated. We speculate that a similar learning orientation can exist in other settings, such as when individuals in organizations seek out action learn-ing opportunities to further their professional development. In contrast, however, when individuals do not self-select into programs, but, rather, are required to participate, a well-designed experience may be even more critical. Current knowledge of action learning programs would benefit from research that examines how the type and amount of learning differs when participation is voluntary versus manda-tory. Also pertaining to the issue of self-selection, prior research has indicated that age and gender can influence volunteer experiences. Our results, however, showed that age and gender were not key pre-dictors of community or personal learning, suggesting that a well-designed community service pro-gram can benefit a wide range of individuals, regardless of demographic characteristics.

Conclusion

As organizations and their communities become more complex, managers must demonstrate flexibility and have the skills and self-knowledge to work effectively with a diverse community of constituents. This study presents a preliminary model of design conditions and action learning outcomes. An impor-tant implication of our results is that designers of action learning programs need to differentiate com-munity learning goals from personal learning goals. If community learning is central, then program designers should aim to create activities high in task identity and task significance, that provide

substantial opportunities for client interaction, and that participants are likely to experience as pleasant and energizing. If personal learning is emphasized, then activities should minimize client contact and, instead, provide opportunities for participants to work closely together on tasks requiring the use of varied and complex skills and to socialize with one another in a pleasurable and enjoyable context. In summary, this study serves as a platform for continued work that examines critical input conditions for different types of learning in community service contexts.

Acknowledgements

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