



Learning at the Edges: Challenges to the Sustain- ability of Service Learning in Higher Education

Charles Underwood

University of California Office of the President

Mara Welsh

University of California, Berkeley

Mary Gauvain

University of California, Riverside

Sharon Duffy

University of California, Riverside

Service-learning in higher education has gained increasing attention in recent years, but at most universities it remains an activity that is largely peripheral to the dominant concerns of the institution. Service learning has generally been defined as coursework that places undergraduates in community-service activities and relates those activities to academic content. In principle, service-learning courses engage students in activities that involve service of some sort to the neighboring community and provide the occasion to reflect on their participation in those activities, thus connecting service to classroom instruction. In this way, service learning both extends learning beyond the classroom and brings the real world into the classroom. In practice, however, because of the manner in which service-learning programs have been established at many universities, primarily from higher administrative units, the tendency has been for service-learning programs to become marginalized. That is, they take place outside the academic mainstream of campus life — in many cases, outside traditional academic departments — and enjoy relatively little departmental or institutional commitment. This tendency represents a serious challenge to the long-term sustainability of universities' service-learning partnerships with schools and community organizations.

In this article, we attempt to make both practical and theoretical contributions to the literature on service learning. On one hand, we focus pragmatically on the sustainability of service learning efforts, given the institutional culture of the university. On the other hand, we also examine service learning through the lens of sociocultural theory, as a form of learning through apprenticeship. Our intent is to understand the multi-

layered expert-novice roles implicit in service learning as a sociocultural activity, and to interpret how the negotiation of those roles, especially the expert role assumed by participating faculty, directly impacts the sustainability of such programs in higher education. In the course of our discussion, we seek as well to contribute to the understanding of the expert's role in apprenticeship-like learning activities, a theoretical focus that has been largely neglected in previous literature.

More specifically, this chapter examines the institutional culture and practice of one University of California service-learning program, called UC Links. In its ideal form, UC Links exemplifies service learning. Based on the 5th Dimension model developed by Cole (1996, 1999) and his colleagues (Vasquez, Pease-Alvarez & Shannon, 1994; Blanton et al., 1997; Mayer, 1997; Mayer et al., 1997; Schustack, Strauss, and Worden, 1997; Mayer, Shustack & Blanton, in press), UC Links is a network of after-school programs established to address issues of educational equity and the digital divide by extending computer-based and other educational resources and activities to K-12 youth who would otherwise not have access in their homes and local schools. In program sites at all eight undergraduate campuses of the University of California, university students, to fulfill the requirements of an academically challenging practicum course, are placed in field settings at school sites or in community organizations, where they participate in after-school, computer-based educational activities with K-12 youth. While interacting closely with these younger youth in the field setting, the university students observe and experience first-hand the concepts that are taught in their course at the university; then they are required in email and face-to-face discussions, to interpret their field experiences in a critical manner. The courses vary in discipline, ranging from psychology to communications to archeology, among other fields, according to the participating faculty member's departmental affiliation, but they all share a heavy academic emphasis.

The UC Links program has demonstrated remarkable success in working in this way with culturally and linguistically diverse children from economically devastated communities throughout California. Yet although it explicitly attempts to avoid institutional marginalization by integrating the community-based site activities with course content within mainstream academic disciplines, the UC Links program, like other service-learning programs, continues to confront the difficult issue of sustainability. This chapter begins with a theoretical discussion of service learning as sociocultural activity, then examines some of the historical roots of service-learning in the United States. Within that context, the discussion then focuses on the UC Links example as a way of examining some of the challenges, as well as some of the advantages and successes, in the long-term developmental process of attempting to integrate and sustain ser-

vice-learning activities in the context of higher education. Finally, some implications for future research are suggested.

Service Learning as Sociocultural Activity: A Theoretical Approach

Examples of service-learning can be found as early as the 1920's when civic education was advanced as a key factor in developing a democratic society (Carver, 1997). Theoretically, service learning in the United States has its roots in Dewey's (1938) notion of experiential learning, especially the idea that the educational experiences of students and their lives outside educational institutions should be intricately linked. Dewey believed that it was the responsibility of the school to provide opportunities that would enable students both to apply their learning experiences to the world around them and to apply their experience with the world to the school learning process. Writing at almost the same time, Vygotsky (1978) emphasized that learning necessarily takes place in a social and cultural context, and that learning activities at their most meaningful acknowledge the larger social or community context in which they are embedded. Although Vygotsky was by no means focusing on the idea of learning through service, he nonetheless argued, like Dewey, that learning as a human activity is integrally tied to the individual's participation in the larger society. Human psychological functions, the development of these functions, and our understanding of them, are not located or situated inside the individual mind, but are grounded in the everyday sociocultural activities in which humans participate (Vygotsky, 1978; Cole, 1996; Rogoff, 1998). Within this perspective, learning is situated in the historical development of the individual and in the ongoing cultural development of the institutions and society in which the individual takes part.

From a similar perspective, Lave (1993) has discussed how learning in a variety of contexts entails changing participation in both the culturally designed settings of learning within a community and in the practices that people engage in both while they are in these settings and when they use the skills learned in these settings in other contexts. Lave's (1991) concept of "legitimate peripheral participation" emphasizes the ways in which the mastery of knowledge and skills necessitates the recognized passage of novices from relatively marginal to fuller participation in a community's sociocultural activities. Rogoff (1998), in reviewing the literature on cognition as a collaborative process embedded in sociocultural activity, similarly approaches learning as the transformation of participation in productive sociocultural activity – the movement of participants from relatively peripheral or novice roles to roles that are integral to the management and transformation of the activities in which they are involved. From this perspective, service learning may be viewed as a form of learning through apprenticeship (Rogoff, 1990), which involves a dy-

dynamic social relationship in which novices engage with more expert participants in productive activity that serves multiple goals and needs, including those of the more skilled participants. In short, the novice learns through active assistance with the intent of meaningful and useful production. The more skilled participants, or experts, receive support for the work they are trying to achieve, while the novices gain experience and knowledge that enable them to participate more competently with skilled partners. Increased understanding of the tools of the trade and increased skill in the use of those tools, allows the former novice to participate in the activity at a more expert level. This process relies on the establishment of intersubjectivity (Rogoff, 1998), the mutual understandings that people come to share during communication. Importantly, this system does not refer simply to a single dyadic novice-expert relationship. It “often involves a group of novices (peers) who serve as resources for one another in exploring the new domain and aiding and challenging one another” (Rogoff, 1990, p.39). It is, in other words, a collaborative process of distributed cognition involving a variety of asymmetrical and symmetrical roles among participants — not only experts’ support of novices’ participation, but also peers’ support for each other, and even novices’ socialization of more expert participants (Rogoff, 1998). From this perspective, UC Links represents an apprenticeship system with multiple novice-expert relationships — for example, the peer relationships among the K-12 students, the K-12 student/undergraduate relationship, and the relationship between the undergraduates and the university faculty. All of these relationships may be characterized as expert-novice, although the specifics may vary with the activity in which participants are engaged.

Viewing service-learning activities as similar to apprenticeship systems, what appears to occur in such settings is that knowledge is distributed among participants with varying levels of knowledge. However, we would suggest that the apprenticeship model has been somewhat narrowly defined. For instance, although Keller and Keller (1996) acknowledge that apprenticeship involves a socialization into context as well as content, and although Lave (1993) has emphasized that within this system, actors and actions are not simply embedded in context but are actively building context, many discussions of learning through apprenticeship focus primarily on the transfer of knowledge from expert to novice and on the novice’s process of learning or increasing participation in joint activity. They underplay the role of the expert and institutionalized conditions that make up the context where these activities occur. As Rogoff comments, much of this work

pays relatively little attention to the ongoing mutual process of understanding (focusing often on the expert’s treatment of

the novice, with the novice contributing correct or incorrect behavior). More importantly, this literature often overlooks the institutional and cultural aspects of the joint problem-solving activities that are observed (1998, p. 698).

This under-emphasis of the expert's role and of the larger institutional conditions is perhaps the outcome of two key concerns, one theoretical and the other methodological. First, we would argue that, among those working from this perspective, the theoretical preoccupation with how children learn has resulted in an overly narrow focus on children specifically and on novices more generally. This narrow focus has had the effect of neglecting examination of the expert's participation in the dynamic of learning (Rogoff, 1998). Second, the methodological concern for researchers and observers to remain as objective and unobtrusive as possible has the effect of establishing a research stance that poses the learner as an isolated subject. While both laudable, these concerns have the effect of masking the researcher's (or teacher's) agency, as well as novices' roles in socializing their more expert caregivers (Rogoff, 1998). They also obscure the fact that, even in the attempt to play a hidden role in a learning or research activity, that role nonetheless influences, and even shapes, the activity in significant ways, just as it is influenced by the larger institutional culture in which it takes place. How the transformation of intersubjectivity or mutual understanding (Rogoff, 1998) takes place among the various social partners, younger and older, novice and expert, is the question that calls for our attention (Rogoff, 1990; 1998).

Applying this question more generally to service-learning efforts sponsored and conducted by institutions of higher education, it could be argued that the ideal of what Lave (1991) has called legitimate peripheral participation is in that context institutionally problematized. That is, in the context of higher education, service learning is a dynamic collaborative process of cognition not only for university students, but also for university faculty. In the most optimal instances, faculty who become involved in service-learning activities are themselves entering the zone of proximal development, where they are engaged with their university and community colleagues in a collaborative process of confronting institutional resistance and opportunity, of testing the boundaries of their knowledge of the institution in which they work and its resilience or impenetrability. They are as well engaged in the process of transforming the very character of their own participation in the sociocultural domain in which they lead their professional lives. In this regard, we would argue that university faculty, involving themselves as relative novices in the service-learning enterprise (there may yet be no experts), often find themselves in the situation of relatively peripheral participation in the sociocul-

tural world of the university, a situation in which the legitimacy of their participation — the acknowledged and accredited path of their engagement — often appears to be in question.

In this context, service learning in higher education continues to be what we would call “learning at the edges.” For faculty as well as their students at this point in time, it is a form of learning that takes place always on the verge of the zone of proximal development; it is also learning that at this stage in its development often takes place at the margins of the university as social institution, as well as at the frontiers of institutional sustainability. It is within this context that we attempt below to offer a somewhat altered approach to the model of learning through apprenticeship as a way of shedding light both on the multi-layered social interactions and arrangements of skilled as well as unskilled partners in service-learning activities, and on the embeddedness of those activities within a larger sociocultural or institutional context that includes the expert’s often institutionally precarious yet nonetheless defining role.

UC Links and Service Learning: An Ethnographic Example

As a University of California model linking community service to academic content, UC Links has attempted to avoid institutional marginalization, or at least to accelerate the developmental process of institutional integration, by situating itself from the outset within the mainstream of academic life at the university. The University of California was established as a land-grant institution in 1868. In its charter, the University was charged with a three-fold mission of research, teaching, and public service; importantly, in fulfilling its primary mission, it was called upon to conduct and disseminate research on issues of crucial concern to the public at large, so that at least theoretically, its missions of research and community service were closely tied. There is little question, however, that the University of California places primacy on its research mission. Although in recent years the University has been challenged to take on an increasingly active role in relation to public education at the K-12 level, these efforts continue to be widely perceived as part of the University’s public service mission — separate and distinct from both its primary mission of research and its secondary mission of teaching.

The UC Links network of after-school programs emerged as a strategy for UC faculty to become involved in community-service efforts while fulfilling the research and teaching responsibilities for which faculty are primarily rewarded. Importantly, the primary goal of the UC Links effort was not to create service-learning opportunities for students, but to provide quality undergraduate education that brings together theory and practice. UC Links represents the collaborative framework by which the university is able to extend meaningful services to the community and in

turn gain access to a living laboratory for teaching and research that directly address educational issues of crucial concern to both the community and the university. In this way, UC Links takes seriously the generally unspoken and relatively unrewarded tertiary element of the University's three-fold mission and ties community service to the research and teaching missions. UC Links is in this sense an explicit attempt to bring "service learning" and "outreach" into the academic mainstream by embedding them in undergraduate courses sponsored by a variety of academic departments and professional schools at UC campuses. Based on a successful model of informal after-school learning activities originally developed at UC San Diego (Cole, 1996, 1999; Vasquez, Pease-Alvarez & Shannon, 1994), and drawing on the later experience of a core group of additional sites funded by the Mellon Foundation (Mayer, Shustack & Blanton, in press), UC Links is a multi-campus network of after-school programs operated by university faculty, staff and students working in collaboration with local schools and community organizations throughout California. Through enrollment in mainstream academic courses, depending on the respective disciplines of participating faculty, university undergraduates engage in interaction with K-12 youth in after-school informal learning activities that draw on technology-based and other educational resources.

Historically, the program was launched in response to the UC Regents' elimination of affirmative action at the University of California in 1996. At that time, a group of faculty from eight of the campuses of the University of California came together to formulate and propose a sustainable alternative that would help promote a diverse student population at the University. This cross-disciplinary, multi-campus effort was based on the recognition that the educational problems that many low-income children (from all backgrounds) face are symptomatic of much broader economic, social, and political inequities (Duster et al., 1990; Underwood, 1990). UC Links sought to address explicitly the issue of educational equity by focusing on the interrelated problems of access to quality after-school care and to technology-based educational resources for low-income youth and their families. To accomplish this objective, UC Links built on local university-community-school collaborations to create long-term, community-driven, information technology-based activities for low-income youth and their families in the after-school hours. To garner resources for this task, the participating faculty in 1996 drafted a multi-campus proposal to support after-school programs near each UC campus and submitted it to UC President Richard C. Atkinson, who agreed to provide initial funding to UC Links as a statewide faculty initiative for two years. In 1998, presumably due to the growth and success of the program, President Atkinson made the UC Links funding a permanent budget item in the University's budget.

In its first year, UC Links operated a network of 14 after-school sites, situated in a variety of school and community-based settings near the eight UC campuses. Presently there are more than 20 sites throughout the state of California. From the outset, these efforts drew on the local knowledge of the community and school partners, in order to adapt the program to the special interests and needs of local children and their families. Parents and other members of the community played a key role as equal partners in the collaboration, taking part in defining themes and activities that were culturally and linguistically appropriate for their children. University faculty, staff, and students brought to the equation extensive multidisciplinary knowledge and experience in building meaningful learning activities and in using technology and other educational resources to serve those themes and activities. The university's role was to be sustained in a relatively inexpensive manner by establishing undergraduate coursework that allowed university students to interact as older peers with K-12 youth in the community as one requirement of a substantive course in their academic program. As a practicum course that placed the university students in the community setting, the course also offered them firsthand opportunities to connect the academic theory that they were learning in class with practical observational and interactive experiences that benefited both their own learning and that of the K-12 children. In this way, for the UC Links program at each UC campus, the practicum course served to establish a variety of apprenticeship-like relationships between university students and faculty, between university and K-12 students, and among the K-12 youth themselves. As mentioned above, linking community service to coursework in this way enables faculty to integrate their community-service interests with their teaching responsibilities. It also provides an opportunity for faculty to pursue research interests, thus making it possible for them to be institutionally rewarded for their participation – that is, making it possible for their participation to complement their research programs, rather than taking away from the research efforts that represent the prime activities for which the institution rewards them. Ideally, faculty participation in UC Links fulfills the University's three-fold mission in an integrated way: it promotes quality learning experiences for university students, provides opportunities to conduct relevant research in UC Links field sites, and contributes to the goal of preparing K-12 youth from diverse backgrounds to pursue post-secondary education.

In practice, each UC Links site creates an engaging world of technology-mediated learning activities in which children interact closely with older peers, university students, and other adults in computer games and Internet-based problem-solving and literacy-building explorations. Working in collaborative groups, older and younger children learn together in

an informal, playful atmosphere. Participants choose among loosely structured tasks using educational software, computer games that promote problem-solving skills, web-based explorations, E-mail, as well as other non-computer activities that are rich in opportunities for the co-construction of knowledge. As noted above, this pedagogical approach is rooted in the concept of learning as a pre-eminently social activity. The basic idea is that although a child can on any particular day choose to take part in any one of a number of activities and could potentially choose the same activity again and again, incentives are provided to encourage children to try out a wide range of activities or tasks. Children usually work together in small groups or with a college student rather than each child sitting alone in front of a single computer terminal. Because they may in the course of time choose different activities, the result is that in one activity a child may be an expert while in another activity this same child may be a novice in comparison to his or her peers. This complex of expert-novice relationships fosters participants' mutual engagement in the learning process that Vygotsky (1978) has called the zone of proximal development. For the youth engaged at the site, problems, concepts, or functions that they could not solve on their own become accessible and solvable through their participation with youth (including university students, although at times the undergraduates themselves are novices and the younger children relative experts) who have mastered those functions — that is, as novices participating in the specific activities draw on the greater experience and skill of more expert participants.

In effect, then, the UC Links/Fifth Dimension model exemplifies the notion of learning through apprenticeship by creating meaningful activities for all participants at all levels of ability. Through their engagement in these activities, all of the participants in the after-school activities are benefiting: the local communities are provided with secure after-school care for their youth during the time when they are most vulnerable to neighborhood violence, child abuse, and other risk factors in their community; the children themselves have access to tools and pedagogical resources and activities and a secure place to learn through play while for the first time encountering a direct connection to the University; undergraduates are able to develop a deeper understanding of the theories that they are learning in their classrooms while directly experiencing their import in the real world; faculty members are at least theoretically able to participate in the community service interests they have, while being provided with a living laboratory to pursue their research interests and fulfill their teaching responsibilities; and the University at large gains recognition for its service to the community.

UC Links: System and Sustainability

The UC Links model has had many successes. It has also met with several challenges, the most difficult being sustainability itself. Although UC Links continues to be a viable, dynamic network of programs and activities that in theory provides all of the participants — the communities, the children, the undergraduates, the faculty, and the University — with meaningful activities, in practical terms there remain a number of obstacles to its sustainability. Specifically, if we view service learning efforts like UC Links as a master-apprenticeship system, it becomes apparent that the benefit or credit given to faculty members, when they take on the role of expert in this system, remains problematic. Although this may be changing and is, as we would argue, part of an ongoing process of historical development, it remains the case that at present the institutional culture of many universities simply does not lend itself to crediting community service activities or service-learning programs as primary professional activities.

In the first place, faculty receive little or no recognition or reward for their participation in community service, which is often viewed as a commendable but dispensable addition to the work of faculty. Second, even with respect to the university's secondary mission of teaching, some would argue that academic departments generally do not equally value courses with service learning components, even when those courses carry a well-articulated theoretical or research focus, for the explicit reason that they do have a service component (Gray et al., 1999). Third, research conducted in field sites connected to community programs and university courses is likely to encounter more complications than research conducted by faculty in other contexts. At the same time, if what Gray et al. (1996) suggest is true (and indeed, this may vary significantly from one institution to another, as well as from one academic department to another), and these courses are not valued as highly as other courses without a community service component, it may follow that faculty members find that they are not equally recognized for their work in teaching these courses. Certainly there is often a lack of resources to support, coordinate and maintain these courses. In the case of UC Links, this fact looms larger, because the UC Links courses are not simply one course per academic year, but two (in the semester system) or three courses (in the quarter system), in order to sustain site activities throughout the year. This represents a sizeable commitment on the part of any academic department. Moreover, most laboratory courses in the sciences receive more than the standard number of credits for a lecture course, while lab credit for the UC links course remains at issue; field practicum courses only receive extra credit in some departments at some campuses.

Even in those cases in which the number of undergraduates in the course are lower than departmental minimums for teaching assistant support, these courses generally require at least one teaching assistant to help with site activities and with undergraduate's weekly field notes. As a result, service-learning programs like UC Links often are considered too expensive; their existence as regular courses can be highly problematic. It may be that the benefits to university students and K-12 students who will be better prepared for university admission will become more obvious over time and the value of these courses will be more widely recognized. It can hardly be maintained, however, that such service-learning efforts have entered into the mainstream of the university's academic life, and the sustainability of such programs — and especially the sustainability of the university's role in collaborations with local schools and community organizations — remains highly tenuous. Gray et al. (1999) have identified factors that generally serve to promote the long-term sustainability of service-learning programs. These include “the presence of a tradition of service at an institution, the strong support of an institutional leader, faculty involvement, and the establishment of a service center offering centralized administrative support” (Gray et al., 1999, p.18). While these are generally dependable bases on which to build service-learning efforts in higher education, their presence at most universities is an empirical question.

For example, the complex role that faculty play in service-learning programs requires closer examination. For many faculty involved in UC Links programs, the coordination of the program represents a distinctively separate task from teaching the course. In some cases, faculty have found that the program operated more smoothly during those years when they arranged for someone else to teach the practicum course and they themselves were able to focus on site-based research activities. Again, the time, energy, and resources spent simply in running the program, especially at the early stages of site development, may preclude productive research and teaching activities. Support in the form of teaching assistants, research assistants (one or more of whom can serve as site coordinators), and additional faculty involvement is indispensable to the sustainability of the effort. Faculty involved in the UC Links program have often expressed a perceived lack of support. They acknowledge, however, that Chairs and Deans cannot be expected to appreciate how much more there is involved in a UC Links practicum course than there is in the usual university lecture class, because so much of the work that necessarily takes place happens off campus. Moreover, most academic departments simply do not see such activities as within the scope of their work. Although professional schools (such as Schools of Education) sometimes view these activities as indeed very much within the scope of

their work, the question remains as to how they will be weighed when participating faculty are reviewed for tenure or promotion. In fact, when other faculty observe the extraordinary commitment of time and energy necessary for participating faculty to sustain their programmatic efforts, it becomes more difficult to recruit additional faculty to the effort.

In the face of these challenges, faculty have both tested and in some cases transformed the institutional limits of their participation in UC Links as a service-learning activity. For instance, at UC Riverside the UC Links program is jointly run by two faculty members – one in the Psychology Department, which is in the College of the Humanities, Arts, and Social Sciences, and another in the College of Education. At first, this cross-college effort presented challenges, due to the very different educational objectives of the two colleges. Over time, however, the course came to fit a distinctive niche within each program. In Psychology, it provides an opportunity for students to be involved in a field laboratory course tied to rigorous theory-based coursework in the discipline, a much needed feature of the curriculum that is recognized to be in short supply on the campus. In Education, it provides access for undergraduates to the Education faculty and to K-12 children in local schools; this direct access enables students to explore and develop their career aspirations and understandings in this area, again through intensive exposure to both theory-based content and experience in the field. Thus, although establishing and demonstrating these goals was effortful on the part of the faculty who run the program, in time the course has gained increasing administrative support from both colleges, because it was carefully constructed to serve different if complementary goals in these two colleges.

Perhaps because of their longer history and demonstrated success in promoting cognitive and social gains for both K-12 and university youth, the UC Links programs at UC San Diego are supported relatively well. The campus provides funds to match the systemwide funding that the programs receive. The sponsoring department pays for the course to be taught two out of three quarters, and makes it possible to hire an extra teaching assistant for the course. This support is perhaps due in part to the prestige of its being the campus where the UC Links model originated. Yet even with the support, the programs at UC San Diego are stretched for resources. As a strategy for institutionalizing the program more deeply on the campus, faculty proposed that all university undergraduates be required to take a UC Links course. This proposal was made on the grounds that (1) it would provide a high quality laboratory course for social science students, (2) it would provide participating faculty with a dynamic “laboratory” setting for conducting research on a variety of issues relevant to education, human development, language and culture, etc., and (3) it would provide the University with a demonstration model of how it is serving the

surrounding community. To date, the proposal has met with resistance from the academic senate, and from faculty at large, because of the continuing perception among them that service learning lacks rigorous academic content. As a result, even though these two UC Links programs have maintained the longest track record, have evidenced cognitive gains for participating youth, and have been supported from the highest levels of administration—they continue to operate as activities that are seen by many as relatively marginal to the academic mainstream, making their long-term sustainability questionable.

Learning Service: Understanding the Expert's Role

We would again argue optimistically that the problematics of sustainability for service-learning programs like UC Links are an aspect of a long-term process of historical development of such activities. Within the relatively traditional institutional culture of the university, service learning represents a new and perhaps rather intrusive new activity. As the role of experts in the collaborative process of cognition has thus far been inadequately addressed, similarly the role of faculty in this new sociocultural activity has yet to be fully examined. Discussions of service-learning activities have tended to focus on the learning that takes place among novices (whether undergraduates or school children). They tend to neglect the fact that faculty are themselves in some ways novices engaged in the process of transforming their participation from being relatively marginal participants to acting as more skilled participants in the negotiation and transformation of the institutional activities in which they are involved. That is, when faculty take part in the field setting of service-learning programs like UC Links, they are acting not only with regard to the immediate social environment, but also with regard to the advantages and limits available to them, given their roles within the university. Those advantages and limits have a significant effect on the activities at the site, and this is not entirely visible until, as participants in the activity, they come up against both the personal and the university-based challenges associated with considering ongoing, long-term involvement in a service program.

At UC Riverside, for example, understanding and support of a faculty member's involvement in the UC Links program by other faculty members and administrators has met with different obstacles in the two colleges involved. This difference is not because the colleges hold different academic standards, but because there are different understandings of and value placed on such programs in the two colleges. For this reason, before faculty become involved in a program like UC Links, they need to consider carefully the broad range of perspectives and the varying receptivity to such efforts among academic departments and professional

schools on their campus. Because the criteria by which faculty are assessed and rewarded are unlikely to change soon, it is imperative that they be especially mindful to make sure that their own engagement in activities related to the program, to the greatest extent possible, coincides, or at least significantly overlaps, with the established expectations of their departments and colleges. In practice, as mentioned above, faculty become knowledgeable about the socio-cultural intricacies of the institutional context that challenge their own and others' engagement in service-learning efforts, and shape the community-based activities themselves. Through an ongoing process, faculty's own participation in the activity is transformed as they creatively negotiate and grapple with those challenges, thus demystifying the institutional context, making it more visible and tractable, and increasing their own agency within the institution.

This developmental process is apparent in successive discussions of the institutional context of UC Links/5th Dimension programs to be found in the literature. Cole, for instance, in writing about the Fifth Dimension in San Diego, has commented on the significance of the immediate institutional context of the program: "we know from analyzing 5th Dimension interactions in a variety of community institutions (libraries, schools, and churches, in addition to youth clubs) that the specific characteristics of interaction within a 5th Dimension depend on the nature of its institutional context" (Cole, 1999; p. 103). Here, Cole, although he has continued to maintain an extraordinarily active presence at the Solana Beach 5th Dimension site, underplayed the important role of himself and other faculty both for the interactional character and for the institutional sustainability of the program as a multi-institutional collaboration. Reflecting views which Cole and his colleagues held a number of years ago, this account views the institutional context as encompassing the community institutions that host the 5th Dimension "out there." While focusing on the affiliation between the children and the undergraduates at the site and what they both contribute to and receive from their mutual involvement, Cole thus formerly downplayed in his writing (although certainly not in his active engagement in the "cultivation" of the site) the role he and other faculty played: "Once the system was in place, we needed both to promote its growth and to analyze the dynamics of growth over time. Then, after a suitable period, we withdrew to a prearranged position as participants in, but no longer instigators of, the innovation..." (Cole, 1999, p.94).

Discussion with Cole and others who have been involved in 5th Dimension, UC Links, and other similar efforts, indicates that although they have indeed been active in carrying out the necessary role both within the institutions hosting the programs and within the institutional structure of their university campuses, they are only beginning to under-

stand and address that role explicitly as a theoretically crucial element in the dynamic process of multi-level participation which the programs entail. In this sense, the institutional context of service-learning programs like UC Links reaches far beyond the host setting; it as well includes the often unseen opportunities and constraints brought to bear on the site and its participants through the university's involvement at the site. That is, the institutional weight of the university has a bearing on what can happen at the site, depending on how it pushes or pulls, how it impedes or enables, how it sanctions or legitimates the faculty's full participation in the multi-layered collaborative process of learning that takes place at the school- or community-based site.

Conclusion

Service learning programs and activities represent a powerful tool for universities to provide genuine service to the communities in which they are situated. Few schools, community organizations, or non-governmental organizations (NGO's), however, have an interest in short-term projects that are here today and gone tomorrow. One-time service-learning courses that come and go, or classes offered only occasionally, poorly serve the ongoing needs or interests of these organizations. The sustainability of service-learning programs and activities sponsored by institutions of higher education are therefore of crucial significance. While Gray et al.(1999) have noted some of the factors that contribute to the longevity of these programs; there remains significant resistance at many universities to the institutionalization of those factors. The task ahead for those of us committed to service learning at most American universities is not how to benefit from the presence of those factors, but how in fact to begin fostering those elements at our respective institutions. However, we are only beginning to know what it takes to make it happen and keep it happening, even on campuses and in departments where there is a history of service-related activity. We do know, that to integrate service-learning efforts within the institutional mainstream, they must ultimately be established and perceived as central to the University's mission. At present, we would suggest that the mainstream view is that "success in achieving the mission of the University rests squarely on the faculty" (Pister, 1991, 14). Because this view and the system of faculty rewards is unlikely to change significantly in the near future, we do not believe that we can feasibly call for a shift in institutional values.¹ Instead, we approach the process of ensuring the sustainability of service-learning efforts from within the existing institutional culture.

In our view, the role of faculty in this process is crucial, because they are the agents for institutionalizing the university's ongoing presence in the community through their sponsorship of service-learning

courses. As apprenticeship-like activities, service-learning efforts like those in the UC Links network of after-school programs represent not only meaningful learning opportunities for local children and for university students, but also, at least potentially, opportunities for adults, including university faculty, to undertake and accomplish productive work related to their own professions. In research on learning through apprenticeship, as well as in our focus on service learning as apprenticeship, it is essential not to relinquish attention to the role of faculty, as masters in the master-apprenticeship relations established through such programs. Programs like UC Links necessarily have to continue addressing these issues explicitly, keeping in mind the side of the equation involving the role of the “expert” and of the institutional context in which the expert necessarily does productive work with novices. As suggested in the example from UC Riverside above, this in part implies that faculty engaged in service learning make sure that they do not fail to assess the institutional constraints under which they work and secure the support they need. Because service learning is relatively new to many institutions of higher education, this involves, as Rogoff (1998) and others have noted, an often arduous developmental process of transforming their own participation in service learning as an institutionally embedded sociocultural activity. In theoretical terms, it involves learning to manipulate the tools of their trade – their productive work in intellectual attainment and scholarship — to resituate themselves from relatively peripheral participation in their departments and in the institution at large, in order to establish the increased legitimacy of their engagement. In practical terms, as in the Riverside example, it involves taking care to situate the service-learning coursework strategically such that it serves not only the needs of local schools or community organizations, but as well the needs and interests of the academic departments in which they work.

Service learning, as a cognitive process, at its best is a collaborative venture. It is not a matter of the university “doing” service to the community out of the goodness of its institutional heart. In many cases, for that matter, as in the case of the University of California, it becomes actively engaged in service-learning efforts in part as a result of external political pressures or in the pursuit of its own institutional interests. This is not to say that these efforts are not laudable or that institutions like the University of California are not committed to these efforts. In the case of UC Links, it was commitment at the highest level of administration, as well as among a broad range of faculty at the University’s eight campuses with undergraduate programs, that made the statewide effort possible. It is important, however, to recognize that at their best, these efforts are multi-institutional collaborations. The history of UC Links indicates that individual programs in specific localities are generally not sustainable if de-

pendent on a single institution — whether the school, the community organization, or the university campus. These programs — and we would argue all service learning programs that do not patronize the local community — are necessarily joint efforts. In this light, the faculty play a significant mediating role both in ensuring the university's sustained commitment to the effort and in shaping the activity that frames any genuine opportunity for university students to learn through service. The integration of service learning activities within the mainstream of academic life may be the surest strategy for ensuring their sustainability in the context of institutions of higher education, and faculty involvement. This involvement makes it possible to link community service to the university's research and teaching missions. However, faculty themselves may not represent the ideal role for carrying out the full development and maintenance of such programmatic efforts. Those involved in UC Links in the last several years have found that structurally, at least at their own respective campuses, it works best to hire a post-doctoral or graduate student to teach the undergraduate course and coordinate site activities (in some cases, a member of the local community is hired for site coordination). This arrangement allows faculty members to be relatively unencumbered by the demanding details of day-to-day site logistics and to focus their involvement on the big picture of shaping both the academic content and the site-based research for which they are primarily held responsible and rewarded. This does not mean that they are not involved at the site; it simply means that their students, under their supervision, are responsible for the specifics and site maintenance.

The appropriate role of faculty in service learning is in some ways specific to particular programs and sites. At present, however, few engaged in these efforts have written about their own or each others' growing experience and knowledge in this area. As such, it remains a crucial area in which research can potentially inform service-learning efforts like UC Links, involving a reflexive ethnographic approach to the study of a key participant's role in the program. Such an approach does not presume to regard the others at the site as isolated research subjects but explicitly acknowledges and deliberately examines the participant observer's and others' agency in the activities taking place in a given social setting. From this perspective, by focusing more closely on the role of faculty and on the means by which their participation in service-learning activities can be more firmly institutionalized, we can begin to discern the precise division of labor and the necessary resources needed to overcome the institutional fragility of these efforts. At present, the division of labor in this distributed system of knowledge and responsibility remains a largely unspoken and unexamined, or at least undocumented, phenomenon. Exactly what it takes to run a program like UC Links, for example, with one or more per-

sons teaching the undergraduate course, another coordinating the site activities, while others are engaged in conducting research on program activities, necessarily involves an understanding of this activity as a collaborative learning process, in which the participation not only of children and university students, but also of faculty, is constantly shifting from peripheral roles as novices to more central, transformative roles that are both integral to the activity and in some ways shaped by the larger institutional context. To understand how this sociocultural activity actually works involves a kind of multi-layered institutional ethnography which, while formidable in time and expense, may be indispensable to sustaining the activity itself.

References

- Blanton, W., Moorman, G., Hayes, B., and Warner, M. (1997). Effects of participation in the fifth dimension on far transfer. *Journal of Educational Computing Research*, 16 (4), 371-396.
- Brandel, M. E., & Hinck, S. (1997). Service learning: Connecting citizenship with the classroom. *NASSP Bulletin*, 81 (591), 49-55.
- Carver, R. L. (1997). Theoretical underpinnings of service learning. *Theory into Practice*, 36, 143-149.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge, Mass.: Harvard University Press.
- Cole, M. (1999). Cultural psychology: Some general principles and a concrete example. In Y. Engestrom, R. Miettinen, & R. Punamaki (Eds.), *Perspectives on Activity Theory* (pp. 87-106). Cambridge: Cambridge University Press.
- Dewey, J. (1938). *Experience and education*. New York: Macmillan Publishing.
- Duster, T. S., Keller, E. J., & Underwood, C. (1990). *Making the future different: Report of the task force on black student eligibility*. Berkeley: University of California.
- Gardner, B. (1997). The controversy over service learning. *NEA Today*, 16(2), 17.
- Gray, M. J., Ondaatje, E. H., & Zakaras, L. (1999). *Combining service and learning in higher education*. Santa Monica: RAND.
- Helen Dwight Reid Educational Foundation (1997). Standards of quality for school-based and community-based service learning, *Social Studies*, 88 (5), 215-220.
- Keller, C. M., & Keller, J. D. (1996). *Cognition and tool use: The blacksmith at work*. New York: Cambridge University Press.
- Kinsley, C. W., (1997). Service learning: To connect learning and living. *NASSP Bulletin*, 81 (591), 1-7.

- Lave, J. (1993). The practice of learning. In S. Chaiklin & J. Lave (Eds.), *Understanding practice: Perspectives on activity and context* (pp. 3-32). New York: Cambridge University Press.
- Lave, J., & Wenger E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Oxford University Press.
- Lindauer, P., Petrie, G., & Bennett, B. (1999). Making your district's service-learning program work. *Education*, 120 (1), 88-103.
- Mayer, R. (1997). Out-of-school learning: The case of an after-school computer club. *Journal of Educational Computing Research*, 16(4), 333-336.
- Mayer, R., Quilici, J., Moreno, R., Duran, R., Woodbridge, S., Simon, R., Sanchez, D., & Lavezzo, A. (1997). Cognitive consequences of participation in a "fifth dimension" after-school computer club. *Journal of Educational Computing Research*, 16 (4), 353-369.
- Mayer, R., Shustack, M., Blanton, W. (In Press). What do children learn from using computers in an informal collaborative setting? *Educational Technology*.
- Pister, K. (1991). *Report of the University-Wide Task Force on Faculty Rewards*. Berkeley: University of California.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (1998) Cognition as a collaborative process. In W. Damon, D. Kuhn, & R. S. Siegler (Eds.), *Handbook of Child Psychology* (vol. 2, pp. 679-729). Toronto: John Wiley & Sons.
- Schustack, M., Strauss, R., & Worden, P. (1997). Learning about technology in a non-instructional environment. *Journal of Educational Computing Research*, 16 (4), 337-351.
- Underwood, C. (1990). Black student eligibility: A review of the literature. *Report of the Task Force on Black Student Eligibility*. Berkeley: University of California.
- Vasquez, O., Pease-Alvarez, L., & Shannon, S. (1994). *Pushing boundaries: Language and culture in a Mexicano community*. New York: Cambridge University Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, Mass.: Harvard University Press.

Notes

¹ At the University of California, a University-Wide Task Force in 1991 recommended modest adaptations to the system of faculty rewards; its recommendations were soundly rejected by the Academic Senate.

Dr. Charles Underwood is Executive Director of University /K-12 Technology Initiatives at the University of California Office of the President, and Executive Director of the UC Links statewide office, which works with UC Links programs throughout the state of California.

Dr. Mara Welsh, formerly Site Coordinator for a UC Links sites at UC Riverside, is presently the Director of Site Development and Evaluation Strategies for the UC Links statewide office and teaches a UC Links course in the Graduate School of Education at UC Berkeley.

Dr. Mary Gauvain is Professor of Psychology at the University of California, Riverside and is Co-Director of the UC Links programs at the UC Riverside.

Dr. Sharon Duffy is Professor of Education at the University of California, Riverside and is Co-Director of the UC Links programs at UC Riverside.

Acknowledgements

The authors wish to express their appreciation to Michael Cole, UC San Diego, and James Grieshop, UC Davis, for their assistance and valuable comments in the early preparation of this chapter.